

SCHOOL LAUNCH · EXPLORE TRACKS

EXPLORE HOSPITALITY AND HOME · EXPERT

Track 5 of the Explore Tracks, Expert level: four trails for students who love to cook, keep a table, welcome guests and run a small home business. Every stop adds primary sources, real numbers and a reading list.

First edition

*Distributing to the necessity of saints; given to hospitality.
Romans 12:13 (KJV)*

COURSE GUIDE

Explore Tracks are for students who want more of what they love. Each track is a set of short, stand-alone stops. At the Expert level, every stop tells a true story in more depth and gives a primary source to read closely, such as a passage from Scripture, a page from an old cookery or household book, an etiquette manual, or a museum record. It also has a picture study, a hands-on task with real measurements and real costs, a Scripture from the King James Version, a game and a page for the Field Notebook. A “Go deeper” list points to books, museum pages and a second video.

The Hospitality and Home track has four trails of eight stops each. Trail A works in the kitchen: safe habits, scaling recipes with fractions and ratios, the chemistry of yeast, gluten and leavening, and a whole family supper planned to a timetable. Trail B studies the table: everyday and formal settings and where they came from, saying grace, conversation, serving and clearing, and the history of afternoon tea. Trail C reads hospitality in Scripture closely, from Abraham’s tent at Mamre to Martha and Mary’s house at Bethany, and practices invitations, introductions and thank-you notes before planning and hosting a small party. Trail D treats hospitality as a trade: the Proverbs 31 woman’s business, Lydia the seller of purple, inns from Bethlehem to the coaching road, and a bake-sale plan with a full cost sheet, break-even point, price list and profit tally.

Each stop links to the full lesson it grows from (“Goes deeper in”). Most links go to Small Business & Economics (the “Seven Small Businesses” unit) and Arithmetic (fractions, ratios and costing). Others go to History, Life Science, Gardening & Animals, Art and Literature, so time spent on the track also feeds the School Launch courses.

WHO IT IS FOR

Written for students about ages 14 and up who read on their own, keep a notebook without help, and can cook with an adult in the house. Younger brothers and sisters working at the  Scout or  Ranger level can share the same stops and the same kitchen: the family hears the story and studies the picture together, then each child works at the right depth. No cooking experience is needed. Nothing earlier is required.

HOW TO USE THIS COURSE

1. **One stop at a time.** An Expert stop takes 25–40 minutes: read the story and the primary source, study the picture, do the hands-on task and write the notebook entry. Stops where a dish is baked or a meal is served take longer. Two or three stops a week works well.
2. **Any order.** The four trails are independent, and each stop stands on its own. Do the safety and measuring stops (A1 and A2) before any other cooking.
3. **Read the sources.** Most stops include a short primary source. Read it twice, then answer the questions under it: who wrote it, when, for whom, and what it shows about how people kept house and welcomed guests in that time and place.

4. **Work the numbers.** Many stops ask for a calculation, such as scaling a recipe by a fraction, converting cups to grams, costing a recipe per serving, finding a break-even point or pricing a room for a night. Show the work in the notebook.
5. **Field Notebook.** Every stop ends with a notebook entry. Each trail builds something: a family recipe book with costed recipes, a photographed and labelled table setting, a set of hand-written invitations and thank-you notes with a party plan, and a bake-sale business plan or bed-and-breakfast brochure. A parent signs each trail certificate.
6. **Go deeper.** The list at the end of each stop is optional. Choose one item a week, if any, and note it in the notebook.
7. **Badge quizzes.** Each trail has a short, optional badge quiz, written or oral. They are for practice, not grades.

SCOPE AND SEQUENCE

Trail 1: Hospitality and Home 🏠 **Trail A: In the Kitchen** (Self-paced)

Trail 2: Hospitality and Home 🏠 **Trail B: The Table** (Self-paced)

Trail 3: Hospitality and Home 🏠 **Trail C: Hosting and Manners** (Self-paced)

Trail 4: Hospitality and Home 🏠 **Trail D: Hospitality as a Business** (Self-paced)

MATERIALS

- **Field Notebook (a sketchbook or composition book)** One for the whole track.
- **Measuring cups and spoons, a kitchen scale, mixing bowls, a baking sheet, a pie plate and a kitchen timer** For the kitchen stops. The scale is used for weight-and-volume conversions.
- **Everyday dishes, cutlery, glasses, and cloth or paper napkins** For place settings, napkin folding, serving and clearing.
- **Note cards, envelopes, stamps and a good pen** For invitations and thank-you notes that are actually sent.
- **A calculator, grocery receipts or store price lists, and colored pencils and a ruler** For cost sheets, price lists, profit tallies, diagrams and the brochure.
- **A library card** For the cookbooks and copyrighted books in “Go deeper”, which are summarized here and not quoted.
- **Internet access, with a parent nearby** For museum collection pages, digitized old cookbooks and the second videos in “Go deeper”.
- **A Bible (KJV)** For the Scripture at each stop.

GRADING

Explore Tracks are not graded. An Expert stop is done when the student has read the story and the source, done the hands-on task and written the notebook entry.

Badges are earned every five stops and trail certificates by finishing a trail.

- If you want to record the track as elective credit (for example, home economics or life skills), the Field Notebook, the costed recipe book and the trail projects serve as the portfolio.

A NOTE TO PARENTS

You do not need to be a chef or a caterer. Ask your student to tell you the story, show you the source and explain the numbers, and then cook, set the table or plan alongside. Each stop has a short *For families* note with sources and any facts that are uncertain or disputed.

Safety: an adult should be in the house for every stop that uses the stove, oven, sharp knives, hot oil or boiling liquids, and nearby for a student's first time with each. Every cooking and serving stop has its own safety line. Check for food allergies before serving guests or selling food.

Selling: the bake-sale and business stops can be done on paper. If the student sells real food or offers a real service, a parent signs off on the plan first and checks local rules for selling home-baked goods, which differ from place to place.

Sources: older household books such as Isabella Beeton's *Book of Household Management* (1861), Fannie Merritt Farmer's *Boston Cooking-School Cook Book* (1896) and Emily Post's *Etiquette* (1922) are in the public domain in the United States and are quoted. Modern cookbooks and etiquette guides are under copyright, so they are summarized.

Pictures: the picture studies are public-domain paintings by Johannes Vermeer, Jean-Baptiste-Siméon Chardin, Pieter de Hooch, Carl Larsson and others. Norman Rockwell's *Freedom from Want* (1943) is still under copyright, so it is linked for viewing rather than reproduced or used as a picture study.

History: the story that afternoon tea began with Anna, Duchess of Bedford, in the 1840s is the traditional account and is told as such. People of the past, from innkeepers to household servants, are judged by the standards of their own day, and real wrongs are named plainly. Bible accounts (Abraham's visitors, Martha and Mary, Lydia, the Proverbs 31 woman) are taught as true and quoted from the King James Version.

CONTENTS

Trail 1: Hospitality and Home 🏠 **Trail A: In the Kitchen**

- 1.1 Kitchen Safety and Clean Hands
- 1.2 Measuring: Cups, Spoons and Fractions
- 1.3 Bread, the Oldest Recipe
- 1.4 Pancakes and a Hot Breakfast
- 1.5 Soup for a Cold Day
- 1.6 Cookies and the Science of Baking
- 1.7 A Simple Pie Crust
- 1.8 Cook a Whole Family Supper

Trail 2: Hospitality and Home 🏠 **Trail B: The Table**

- 2.1 Setting a Table: Forks Left, Knives and Spoons Right
- 2.2 Formal and Everyday Place Settings
- 2.3 Napkin Folding
- 2.4 Centerpieces from the Garden
- 2.5 Saying Grace
- 2.6 Table Manners and Good Conversation
- 2.7 Serving and Clearing
- 2.8 Tea Time: The History of Afternoon Tea

Trail 3: Hospitality and Home 🏠 **Trail C: Hosting and Manners**

- 3.1 What Hospitality Means
- 3.2 Abraham Welcomes Three Visitors
- 3.3 Martha and Mary
- 3.4 Writing Invitations
- 3.5 Welcoming a Guest at the Door
- 3.6 Introductions and Remembering Names
- 3.7 Thank-You Notes
- 3.8 Plan and Host a Small Party, Start to Finish

Trail 4: Hospitality and Home 🏠 **Trail D: Hospitality as a Business**

- 4.1 The Proverbs 31 Woman's Trade
- 4.2 Plan a Bake Sale: What to Bake and How Much
- 4.3 Costing a Recipe: What Does One Cookie Cost?
- 4.4 Pricing, Signs and Making Change
- 4.5 Inns Through History: Bethlehem, Coaching Inns and the Bed-and-Breakfast
- 4.6 Design a Pretend Bed-and-Breakfast
- 4.7 Lydia, the Seller of Purple, Who Opened Her Home
- 4.8 Count the Profit and Decide: Save, Give, Spend

Trails may be done in any order.

HOSPITALITY AND HOME TRAIL A: IN THE KITCHEN

The first trail of the Hospitality and Home track goes into the kitchen: food safety and clean hands, measuring and scaling with fractions, bread from the Passover to the bread of life, pancakes and a timed hot breakfast, stock and soup, the chemistry of cookies, a pie crust by weight, and finally a whole family supper planned, costed, cooked and served. Along the way the student reads early American cookbooks by Amelia Simmons (1796), Lydia Maria Child (1832) and Fannie Farmer, and the account of the first Passover in Exodus 12.

This is the ● **Expert** level, for ages 14 and up. Each stop takes 35 to 50 minutes to read and discuss, plus kitchen time for the project. The student reads the core ideas alone, works the practice problems (two at each stop are challenge problems with full answers for the parent), studies a primary source, and writes one narration paragraph that a parent keeps. Every stop stands by itself, but each adds a page to a **family recipe book** in the Field Notebook, and the last stop draws on all the others. A parent should supervise the stove, oven and knives and set the budget for the supper.

Five stops earn the **Kitchen Expert badge, part 1**; eight stops earn part 2 and the **Trail A certificate**. The badge quizzes are optional; the badges are earned by doing the stops.

BEFORE YOU BEGIN

- Add, multiply and divide fractions and work with percents and decimals.
- Read a recipe through and follow written steps in order, with a parent present in the kitchen.

MASTERY CHECKLIST

- ☐ I can explain clean, separate, cook and chill, and I use a calibrated thermometer to check that food is safe.
- ☐ I can measure accurately by volume and by weight and scale a recipe with fractions.
- ☐ I can explain how yeast, baking soda, baking powder, air and steam make dough rise, and why pastry is flaky.
- ☐ I can read an early American recipe, translate it into modern terms and say what it assumes.
- ☐ I have planned, costed, cooked and served a whole family supper on a reverse schedule, and my recipe book holds eight pages from this trail.

GO DEEPER: BOOKS, MUSEUM PAGES AND RESOURCES

- **USDA Food Safety and Inspection Service: Safe Minimum Internal Temperature Chart** (<https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/safe-temperature-chart>): The official temperatures for meat, poultry, eggs and leftovers. Print it for the refrigerator door; used in Stops A1, A4, A5 and A8.

- **FoodSafety.gov** (<https://www.foodsafety.gov>): The U.S. government's food-safety pages: clean, separate, cook, chill; storage times; what to do in a power outage.
- **Amelia Simmons, *American Cookery* (1796), Project Gutenberg** (<https://www.gutenberg.org/ebooks/12815>): The first cookbook by an American published in the United States. Primary source for Stops A4, A6 and A7.
- **Lydia Maria Child, *The American Frugal Housewife* (1832), Project Gutenberg** (<https://www.gutenberg.org/ebooks/13493>): Thrift and household management in the early republic. Primary source for Stops A1, A5 and A8.
- **Fannie Merritt Farmer, *The Boston Cooking-School Cook Book*, Project Gutenberg** (<https://www.gutenberg.org/ebooks/65061>): The book that made level measurement standard. Primary source for Stop A2.
- **Harold McGee, *On Food and Cooking: The Science and Lore of the Kitchen* (revised edition, 2004)** (<https://www.worldcat.org>): The standard reference on kitchen science. A large book to borrow from the library and dip into for every stop.

1.1 KITCHEN SAFETY AND CLEAN HANDS

OBJECTIVES

- Explain the four rules of home food safety (clean, separate, cook, chill) and the numbers behind them: 20 seconds, 40–140 °F, two hours, and safe internal temperatures.
- Prevent and respond to the three common kitchen injuries: cuts, burns and grease fires.
- Read an 1832 household manual critically, sorting what it got right from what germ theory later added.

Warm-up. Before you read, write three guesses in your notebook: (1) how many seconds you should scrub your hands with soap; (2) the internal temperature at which cooked chicken is safe; (3) what you should do if oil in a pan catches fire. Keep the page. You will grade your own guesses at the end of the stop.

Video slot. Video coming. How handwashing removes germs (soap as a surfactant); using a food thermometer; how to put out a grease fire safely. Search approved channels (USDA Food Safety and Inspection Service, FoodSafety.gov, a university extension channel such as Penn State Extension, a local fire department); preview first.

KEY TERMS

pathogen

A microbe that causes disease. In the kitchen the usual ones are bacteria such as *Salmonella*, *E. coli* O157:H7, *Campylobacter* and *Listeria*, and viruses such as norovirus.

danger zone

The temperature range, 40 °F to 140 °F (about 4 °C to 60 °C), in which most food-poisoning bacteria grow fastest. Perishable food should not sit in it for more than two hours (one hour above 90 °F).

cross-contamination

Moving pathogens from one food or surface to another, for example by cutting salad on a board that just held raw chicken.

safe minimum internal temperature

The temperature, read with a food thermometer in the thickest part, that a food must reach to be safe: 165 °F for poultry, 160 °F for ground meat, 145 °F (with a 3-minute rest) for whole cuts of beef, pork and lamb and for fish.

surfactant

A molecule, like soap, with one end that clings to water and one that clings to oil. It lifts greasy dirt and the microbes stuck in it off the skin so water can rinse them away.

grease fire

A fire in cooking oil or fat. It must never be fought with water; it is smothered with a lid or put out with baking soda or a suitable extinguisher.

CORE IDEAS

The most dangerous things in a kitchen are usually invisible. The U.S. Centers for Disease Control and Prevention (CDC) estimates that about **48 million** Americans get sick from contaminated food each year, about 128,000 are hospitalized, and about 3,000 die. The single most common cause is **norovirus**, which very often travels on the unwashed hands of the person preparing food. Bacteria such as *Salmonella* (from raw poultry and eggs) and *E. coli* O157:H7 (from undercooked ground beef, and even raw flour) cause fewer cases but more serious ones. A cook who feeds others is responsible for their health, which is why every kitchen lesson begins here.

Food-safety agencies boil the rules down to four words: **clean, separate, cook, chill**. *Clean* begins with hands. Wet them, lather with soap, and scrub for at least **20 seconds** (about the time it takes to hum “Happy Birthday” twice), including the backs, between the fingers and under the nails; then rinse and dry on a clean towel. Soap works because it is a **surfactant**: one end of each soap molecule holds to water and the other to oil, so it pries the oily film on skin loose, and the microbes caught in it go down the drain. Friction and time matter more than hot water; water hot enough to kill bacteria would scald your skin. Wash before cooking, after touching raw meat or eggs, after the bathroom, after sneezing or handling pets, and before eating.

Separate means keeping raw meat, poultry, seafood and eggs away from foods that will not be cooked. Use one cutting board for raw meat and another for bread and vegetables, or wash the board with hot, soapy water between jobs. Store raw meat on the lowest refrigerator shelf so it cannot drip onto anything. One surprise: the U.S. Department of Agriculture advises *not* rinsing raw chicken, because the splashes spread bacteria around the sink. Another: raw flour is a raw farm product, and outbreaks of *E. coli* have been traced to it, so raw cookie dough is not safe to eat.

Cook and *chill* are about temperature. Most food-poisoning bacteria grow fastest in the **danger zone** between 40 °F and 140 °F, and under good conditions some can double in about 20 minutes. Do the arithmetic: 100 bacteria doubling every 20 minutes become $100 \times 2^6 = 6,400$ in two hours and more than 400,000 in four. Hence the **two-hour rule**: refrigerate leftovers within two hours, or one hour on a day above 90 °F. Cooking is judged with a thermometer, not by color: USDA research has found that ground beef can turn brown inside before it reaches a safe 160 °F. Keep the refrigerator at 40 °F or below, and reheat leftovers to 165 °F.

Injuries are the other half of kitchen safety. A **sharp** knife is safer than a dull one because it bites instead of skidding. Curl the fingertips of your guiding hand under (the “claw”), cut away from yourself, and never try to catch a falling knife. Turn pot handles toward the back of the stove. Steam burns as badly as boiling water, so lift lids away from your face. For a minor burn, run cool (not icy) water over it for 10 to 20 minutes; do not use butter, ice or

ointment first. Anything larger than a coin, or any burn on the face or hands that blisters badly, needs medical care.

Cooking is the leading cause of home fires in the United States, according to the National Fire Protection Association, and the leading factor is **unattended cooking**. If oil catches fire, **never pour water on it**. Water is denser than oil, so it sinks to the hot bottom of the pan and flashes into steam, expanding to roughly 1,700 times its volume and hurling burning oil into the room. Instead turn off the burner, slide a lid or baking sheet over the pan, and leave it covered until cool. Baking soda can smother a very small fire (flour cannot; it can burn). If the fire spreads beyond the pan, get everyone out and call 911.

Here is the honest complexity. People kept clean kitchens long before they knew why it worked. Germs were not understood until Ignaz Semmelweis showed in 1847 that hand-washing with a chlorine solution cut deaths in a Vienna maternity ward, and Louis Pasteur and Joseph Lister proved the germ theory in the 1860s. The housekeeping writers before them, like Lydia Maria Child in the excerpt below, urged hot water and order on grounds of thrift, decency and good character. They were right for reasons they could not yet see. Science did not replace their care; it explained it and made it more exact.

PICTURE STUDY



The Scullery Maid, Jean-Baptiste-Siméon Chardin, 1738 · Oil on canvas · The Hunterian, University of Glasgow, Scotland
Wikimedia Commons · Public domain

Chardin was a Paris painter who chose humble subjects that grander artists ignored: kitchen pots, bread, servants at work. A scullery maid washed the dishes and scoured the pots of a large household, the lowest job in the kitchen and also one on which everyone's health depended. Chardin painted her with the same patient attention he gave to the copper pot at

her feet, and the picture was popular enough that he made more than one version and it was copied as an engraving.

Look closely

- Find the tub. What is it made of, and where would her washing water have come from and been heated?
- Look at the copper pot. How does Chardin show that it is clean and shining?
- Look at her face and hands. Is she hurrying or concentrating?

Talk about it

1. This maid knew nothing of germs. What does the painting suggest about why she still scrubbed so carefully?
2. Chardin gave a scullery maid the dignity usually given to nobles in portraits. Why might a Christian painter or viewer think ordinary work deserves that honor?

Safety first. A parent sets the rules for the stove and knives in your kitchen and should be present when you use them. Never leave a hot pan or a lit burner unattended. Keep a lid near the stove and know where the fire extinguisher is. Do not use the stove for the fire demonstration in this stop; it is discussed, not performed.

HANDS-ON: A HANDWASHING TEST, A THERMOMETER CHECK AND A KITCHEN SAFETY AUDIT

Test how well handwashing works, make sure your thermometer tells the truth, and map the hazards and safety tools in your own kitchen. Keep all three results in your Field Notebook; the rest of the trail depends on them.

You will need

- Vegetable oil and ground cinnamon (or a washable glitter gel), a timer
- Soap, a sink and clean towels
- An instant-read food thermometer, a glass of ice and water, a small pot
- Paper, pencil and a ruler for the kitchen map

Steps

1. **Germ test.** Rub $\frac{1}{2}$ teaspoon of oil over both hands, then dust them with cinnamon. The cinnamon stands for microbes stuck in skin oil. Rinse for 5 seconds with water only and note what is left, especially between fingers and around nails.
2. Re-coat your hands. This time lather with soap and scrub for a full 20 seconds before rinsing. Compare. Write one sentence on why soap and time beat water alone.
3. **Thermometer check.** Fill a glass with ice, add cold water, stir and wait 3 minutes. Put the probe in the middle for 30 seconds. It should read 32 °F (0 °C). Record the error,

for example “reads 2 °F high.” If your thermometer has a calibration nut or button, follow its directions; otherwise write the correction on tape on the case.

4. With a parent, bring a small pot of water to a full boil and test again. Water boils at 212 °F at sea level and about 1 °F lower for every 500 feet of altitude. Look up your town’s elevation and work out the true boiling point before you judge the reading.
5. **Safety audit.** Draw a plan of your kitchen to scale (for example, 1 inch = 2 feet). Mark the stove, sink, refrigerator, knives, cutting boards, fire extinguisher, smoke alarm, a lid for smothering a fire, and the first-aid kit. Circle in red any hazard you find (a handle sticking out, a towel near a burner, cleaning chemicals beside food).
6. Check the refrigerator with your thermometer in a glass of water left inside for a few hours. Is it at or below 40 °F?
7. Read the primary source from Lydia Maria Child. In two columns, list what she got right and what modern science would add.

Check your work

- I recorded the difference between a 5-second water rinse and a 20-second soap scrub.
- I know my thermometer’s error and the boiling point for my altitude.
- My kitchen map shows the extinguisher, a lid, the smoke alarm and at least two hazards I fixed.
- I can explain why water must never go on a grease fire.

FIELD NOTEBOOK

1. **Recipe book, page 1: Kitchen rules.** Write the four words clean, separate, cook, chill, and under each give one rule with a number (20 seconds; separate boards; 165 °F for poultry; two hours).
2. Tape in your kitchen safety map and your thermometer correction.
3. Grade your warm-up guesses and correct them in a different color.
4. **Narration.** Write one paragraph, in your own words, explaining to a younger brother or sister why you wash your hands for 20 seconds before cooking. Include what soap actually does and one historical fact. A parent keeps this paragraph.

Did you know? A refrigerator does not kill bacteria; it slows them. A freezer at 0 °F stops their growth, but most wake up again when food thaws. That is why food should thaw in the refrigerator, in cold water changed every 30 minutes, or in the microwave, and never on the counter. *Listeria* is unusual: it can grow slowly even at refrigerator temperature, which is one reason deli meats and leftovers are not kept for weeks.

Primary source. *Lydia Maria Child, “Odd Scraps for the Economical,” in The American Frugal Housewife (1832 edition). Project Gutenberg eBook #13493.*

Always have plenty of dish-water, and have it hot. There is no need of asking the character of a domestic, if you have ever seen her wash dishes in a little greasy water.

Go deeper.

- U.S. Department of Agriculture, Food Safety and Inspection Service, “Safe Minimum Internal Temperature Chart” (fsis.usda.gov): the official numbers in one table.
- Harold McGee, *On Food and Cooking: The Science and Lore of the Kitchen* (revised edition, 2004), the chapter on food safety and microbes. A thick reference book; read a few pages at a time.
- Ellen H. Richards, *The Chemistry of Cooking and Cleaning* (1882), free to read at HathiTrust. Richards was the first woman admitted to the Massachusetts Institute of Technology and a pioneer of household science.
- Second video topic: “Simmelweis and the history of handwashing” (preview first).

Goes deeper in. Life Science, “Microorganisms: Bacteria and Viruses,” and History, “The Age of Science: Pasteur and Lister” (coming soon).

For families. Sources: CDC foodborne illness estimates (2011, still the agency’s current national figures); USDA FSIS and FoodSafety.gov for the four steps, the danger zone, the two-hour rule, thermometer use and the advice not to wash raw poultry; FDA warnings on raw flour; National Fire Protection Association reports on home cooking fires. Burn first aid follows common Red Cross and hospital guidance (cool running water, no butter or ice); when in doubt, call a doctor. The bacterial doubling time of “about 20 minutes” is a best-case laboratory figure used to show why time matters, not a fixed rate for every microbe. The Child excerpt is copied from the Project Gutenberg text; “domestic” means a household servant. Picture: Chardin, *The Scullery Maid*, 1738, The Hunterian, Glasgow (other versions exist). Please supervise the stove and knives, and skip the boiling-water thermometer test if your child is not yet ready for it.

PRACTICE

1. **EASY** Name the four steps of home food safety and give one rule for each.
2. **EASY** What is the danger zone, and why does it matter?
3. **MEDIUM** A bowl of potato salad holding 50 bacteria sits on a picnic table. If the bacteria double every 20 minutes, how many are there after 3 hours?
4. **MEDIUM** Explain why you must not throw water on a grease fire, and give the right steps.
5. **CHALLENGE** Read the Child primary source. What two things does she say about dish-water, what reason does she give, and what reason would a food scientist give today? Is her reasoning wrong, or only incomplete?
6. **CHALLENGE** You live at 5,000 feet. Your thermometer reads 205 °F in boiling water. Later it reads 165 °F in the thickest part of a chicken thigh. Is the chicken safe? Show your reasoning.

Make it a game · Temperature Match. Make 12 cards: six foods or situations (chicken, hamburger, pork chop, leftover soup, refrigerator, danger zone) and six numbers (165 °F, 160 °F, 145 °F + rest, 165 °F reheat, 40 °F or below, 40–140 °F). Shuffle face down and

play memory: turn two at a time and keep a pair only if you can also say one reason the number matters. Most pairs wins.

Scripture. “A prudent man foreseeth the evil, and hideth himself: but the simple pass on, and are punished.” (Proverbs 22:3, KJV)

Prudence means seeing danger before it arrives. A wise cook washes before touching food, checks the thermometer and keeps a lid by the stove, not out of fear, but because loving the people at the table includes guarding them from harm.

Practice: answers

1. Clean (wash hands 20 seconds with soap); separate (separate cutting boards for raw meat, raw meat on the bottom shelf); cook (use a thermometer: poultry 165 °F, ground meat 160 °F); chill (refrigerate within two hours; fridge at 40 °F or below).
2. 40 °F to 140 °F (about 4 °C to 60 °C). Most food-poisoning bacteria multiply fastest in that range, so perishable food should not stay in it more than two hours (one hour above 90 °F).
3. 3 hours = 9 doublings. $50 \times 2^9 = 50 \times 512 = 25,600$ bacteria.
4. Water sinks below the oil to the hot pan, turns to steam at once and expands about 1,700 times, throwing burning oil out of the pan and spreading the fire. Instead: turn off the heat, cover the pan with a lid or baking sheet, leave it covered until cool; use baking soda or a suitable extinguisher on a very small fire; if it spreads, get out and call 911.
5. She says to have plenty of dish-water and to have it hot, and she treats washing in a little greasy water as a sign of poor character in a servant. Her reason is moral and practical: carelessness shows. A scientist would add that hot water and plenty of it dissolve fat and carry away the food film in which bacteria live, and that soap (a surfactant) is needed to lift grease. Her reasoning is incomplete rather than wrong: diligence and cleanliness do go together, and the habit she taught protects health for reasons germ theory later explained.
6. At about 1 °F lower per 500 feet, water boils near $212 - (5,000 \div 500) = 202$ °F. The thermometer reads 205, so it reads about 3 °F high. A reading of 165 °F is really about 162 °F, below the safe 165 °F. Keep cooking until the thermometer reads about 168 °F (or recalibrate it).

1.2 MEASURING: CUPS, SPOONS AND FRACTIONS

OBJECTIVES

- Use the U.S. customary kitchen system fluently (teaspoons, tablespoons, cups, pints, quarts) and convert to metric.
- Explain why weighing beats measuring by volume for flour, and show it with your own data.
- Scale a recipe up or down with fractions, and name the places where scaling is not simply multiplication.

Warm-up. Without looking anything up, write how many tablespoons are in a cup and how many teaspoons are in a cup. Then answer: if a recipe needs $\frac{3}{4}$ cup of milk and you want $1\frac{1}{2}$ times the recipe, how much milk do you need? Keep your answers to check later.

Video slot. Video coming. How to measure flour correctly (spoon and level versus scooping), dry versus liquid measuring cups, baking by weight with a kitchen scale. Search approved channels (King Arthur Baking, America's Test Kitchen, a university extension channel); preview first.

KEY TERMS

level measure

A cup or spoon filled and then scraped flat with the back of a knife, so that every cook gets the same amount. Popularized in American cookbooks by Fannie Farmer in 1896.

dry and liquid measures

Dry cups are filled to the brim and leveled; a liquid cup has a spout and lines below the rim and is read at eye level on a flat counter.

meniscus

The curved surface of a liquid in a cup. Read the measurement at the bottom of the curve, with your eye level with the line.

scaling factor

The number you multiply every ingredient by to change a recipe's size: $\text{new yield} \div \text{old yield}$. To turn 12 muffins into 18, the factor is $18 \div 12 = 1\frac{1}{2}$.

tare

The button that sets a kitchen scale to zero with a bowl on it, so you weigh only what you add.

baker's percentage

A way of writing a recipe in which the flour is 100% and every other ingredient is a percentage of the flour's weight. It makes recipes easy to scale.

CORE IDEAS

For most of history, recipes were written for cooks who already knew how to cook. They called for “butter the size of an egg,” “a teacup of sugar,” “flour enough to make a stiff dough” or “a moderate oven.” A daughter learned the amounts by watching her mother. That changed when **Fannie Merritt Farmer**, principal of the Boston Cooking School, published *The Boston Cooking-School Cook Book* in 1896. She insisted on standard cups and spoons and on **level measures**, scraped flat with a knife. Her book sold millions of copies over many editions and made exact measuring the American habit; she is often called “the mother of level measurements.” Read her own words in the primary source below.

The U.S. kitchen system is built on simple ratios. **3 teaspoons = 1 tablespoon. 16 tablespoons = 1 cup. 2 cups = 1 pint. 2 pints = 1 quart. 4 quarts = 1 gallon.** So a cup is 48 teaspoons, and $\frac{1}{4}$ cup is 4 tablespoons. One U.S. cup is about 237 milliliters (nutrition labels round it to 240 mL), a tablespoon is about 15 mL and a teaspoon about 5 mL. Beware older British recipes: an imperial pint is 20 fluid ounces (about 568 mL), not 16, and Australian and Canadian metric cups hold 250 mL. A recipe is only as exact as the system its writer had in mind.

Liquids are easy to measure by volume because they cannot be packed. Read a liquid cup at eye level, at the bottom of the **meniscus**. Dry ingredients are harder. Flour settles and packs, so a cup scooped straight from the bag can weigh 140 to 150 grams, while a cup spooned lightly into the cup and leveled weighs about 120 to 125 grams. That is a difference of up to 20 percent, enough to turn a tender cake into a dry one. Brown sugar is the reverse case: recipes expect it *packed* firmly, because loose brown sugar is full of air. Butter in the U.S. comes in sticks marked in tablespoons; one stick is $\frac{1}{2}$ cup, 8 tablespoons or about 113 grams.

That is why professional bakers, and most of the world outside the United States, measure dry ingredients by **weight**. A scale does not care how hard you scooped. With a bowl on the scale you press **tare** to zero it, add flour to 250 grams, tare again, add sugar, and so on, with fewer dishes to wash. Bakers also write recipes in **baker’s percentages**, with flour as 100 percent. A plain bread at 500 g flour, 350 g water, 10 g salt and 5 g yeast is 100 : 70 : 2 : 1. To make any size loaf, choose the flour weight and multiply.

Scaling a recipe is fraction work. Find the **scaling factor** (new yield $\div$ old yield) and multiply every ingredient by it. Then convert awkward results to units you can measure. Suppose a recipe calls for $\frac{3}{4}$ cup milk and you scale by $1\frac{1}{2}$: $\frac{3}{4} \times \frac{3}{2} = \frac{9}{8} = 1\frac{1}{8}$ cups. There is no $\frac{1}{8}$ -cup measure in most kitchens, but $\frac{1}{8}$ cup = 2 tablespoons, so measure 1 cup plus 2 tablespoons. Halving $\frac{1}{3}$ cup gives $\frac{1}{6}$ cup, which is $16 \div 6 = 2\frac{2}{3}$ tablespoons, or 2 tablespoons plus 2 teaspoons. Working in tablespoons and teaspoons turns hard fractions into counting.

Here is the honest complexity: not everything scales in a straight line. Eggs cannot be split by eye (a large egg without its shell weighs about 50 grams, so beat it and weigh half). Salt, strong spices and leavening are often reduced slightly when a recipe is doubled or more, because their effect is strong and small errors show. Pan size changes baking time: a double

batch in a deeper pan takes longer to bake through, while the same batter spread thin bakes faster. Comparing pans by area helps: a 9-inch round pan has an area of $\pi \times 4.5^2 \approx 63.6$ square inches, almost exactly an 8-inch square (64 square inches), so those two can be swapped, but a 9 × 13-inch pan (117 square inches) holds nearly twice as much.

Exact measuring is not fussiness. It is the habit that lets a recipe be handed from one family to another and come out the same, and it is a small form of honesty. Scripture uses the image of the just weight and true measure again and again for fair dealing between neighbors. A cook who measures carefully is trustworthy in a small thing, and that is where faithfulness in larger things is learned.

PICTURE STUDY



The Moneylender and His Wife, Quentin Matsys (also spelled Massys), 1514 · Oil on panel · Musée du Louvre, Paris

Wikimedia Commons · Public domain

Matsys worked in Antwerp, then the busiest trading city in northern Europe, where merchants arrived with coins from many countries. Coins were often clipped or worn, so a money-changer weighed each one on a delicate balance to learn its true value. Matsys painted every object with jewel-like care: the scale, the pearls, a small convex mirror that reflects a window and a man outside. The wife is turning the pages of a devotional book with a picture of the Virgin and Child, but her eyes have strayed to the coins. A seventeenth-century description reports that the original frame carried a line from Leviticus calling for just balances and equal weights; the frame is lost, so this cannot now be checked.

Look closely

- Find the balance. Which pan is lower, and what does that tell you?
- Find the convex mirror. What can you see reflected in it?

- Compare the two faces. Where is each person looking?

Talk about it

1. What does this painting have to do with measuring in a kitchen? Think of trust between a seller and a buyer, or a cook and the people she feeds.
2. The wife's eyes move from her prayer book to the money. What lesson might the painter be teaching about attention and honest dealing?

Safety first. Use the back of a butter knife, not a sharp knife, to level measures. Wipe up flour on the floor at once; it is slippery.

HANDS-ON: THE MEASURING LAB AND A RECIPE-SCALING CARD

Gather real data on how much a “cup of flour” can vary, then scale one of your family's recipes and write it out by weight and by volume. The scaled recipe becomes page 2 of your family recipe book.

You will need

- A digital kitchen scale that reads in grams
- Dry measuring cups, measuring spoons, a liquid measuring cup
- A bag of all-purpose flour, a large spoon, a butter knife, a bowl
- A favorite family recipe card
- Calculator and graph paper

Steps

1. Put a bowl on the scale and press tare. **Method A:** dip the 1-cup measure into the flour bag, scoop it full, level it and pour it into the bowl. Record the weight. Repeat four more times (tare each time).
2. **Method B:** fluff the flour with a spoon, then spoon it lightly into the cup until heaped, level with the knife and weigh. Repeat four more times.
3. For each method find the average and the range (largest minus smallest). Then find the percent difference between the averages: $(A - B) \div B \times 100$.
4. Make a bar graph of all ten weights. Which method is more consistent? Which matches the 120–125 g most recipe writers assume?
5. Fill the liquid cup with water to the 1-cup line, reading at eye level, and weigh it. It should be close to 237 grams, since a milliliter of water weighs about a gram. Record the error.
6. Choose a family recipe. Write the scaling factor to make $1\frac{1}{2}$ times the recipe and $\frac{1}{2}$ the recipe. Scale every ingredient and convert awkward fractions into cups, tablespoons and teaspoons you can actually measure.
7. Rewrite the dry ingredients in grams using your measured flour weight and these approximate values: granulated sugar 200 g per cup, packed brown sugar 213 g per

cup, butter 113 g per stick. Note which ingredients you would reduce slightly rather than scale exactly.

Check your work

- I measured ten cups of flour and found the average, range and percent difference.
- My graph shows which method is more consistent.
- My scaled recipe uses only measures I own (no “0.375 cup”).
- I noted at least one ingredient that should not be scaled exactly.

FIELD NOTEBOOK

1. **Recipe book, page 2: The measuring chart.** Copy this ladder and keep it at the front of your recipe book: 3 tsp = 1 Tbsp; 16 Tbsp = 1 cup; 2 cups = 1 pint; 2 pints = 1 quart; 4 quarts = 1 gallon; 1 cup $\approx$ 237 mL; 1 stick butter = 8 Tbsp = $\frac{1}{2}$ cup $\approx$ 113 g.
2. Tape in your flour graph and your scaled family recipe.
3. **Narration.** Write one paragraph explaining to a friend why two cooks can both use “1 cup of flour” and get different results, and what Fannie Farmer and a kitchen scale each did to fix the problem. A parent keeps this paragraph.

Did you know? Not every old measure was vague. A “gill” (say “jill”) was $\frac{1}{2}$ cup, a “wine glass” about $\frac{1}{4}$ cup, and a “peck” a dry measure of 8 quarts, still used for apples at some farm stands. Most countries switched to metric kitchen measures in the twentieth century; the United States kept cups and spoons at home, though nutrition labels give grams and milliliters too.

Primary source. *Fannie Merritt Farmer, The Boston Cooking-School Cook Book, “How to Measure” (edition of 1910 as transcribed by Project Gutenberg, eBook #65061; first edition 1896).*

Correct measurements are absolutely necessary to insure the best results. Good judgment, with experience, has taught some to measure by sight; but the majority need definite guides.

Tin, granite-ware, and glass measuring cups, divided in quarters or thirds, holding one half-pint, and tea and table spoons of regulation sizes,—which may be bought at any store where kitchen furnishings are sold,—and a case knife, are essentials for correct measurement. Mixing-spoons, which are little larger than tablespoons, should not be confounded with the latter.

A *cupful* is measured level. To measure a cupful, put in the ingredient by spoonfuls or from a scoop, round slightly, and level with a case knife, care being taken not to shake the cup. A *tablespoonful* is measured level. A *teaspoonful* is measured level.

To measure tea or table spoonfuls, dip the spoon in the ingredient, fill, lift, and level with a knife, the sharp edge of knife being toward tip of spoon. Divide with knife lengthwise of spoon, for a half-spoonful; divide halves crosswise for quarters, and quarters crosswise for eighths.

Go deeper.

- Fannie Merritt Farmer, *The Boston Cooking-School Cook Book*, free at Project Gutenberg. Browse the opening chapters on measuring and on the chemistry of foods.
- Michael Ruhlman, *Ratio: The Simple Codes Behind the Craft of Everyday Cooking* (2009): bread, dough, batters and sauces as weight ratios.
- National Institute of Standards and Technology (nist.gov), “Culinary Measurement Tips”: the government’s own page on kitchen units and conversions.
- Second video topic: “Why bakers weigh their flour” (preview first).

Goes deeper in. Arithmetic, “Fractions: Multiplying and Dividing” and “Ratios and Rates” (coming soon).

For families. Sources: NIST conversion tables (1 U.S. cup = 236.59 mL; FDA labeling cup = 240 mL); King Arthur Baking’s ingredient weight chart (all-purpose flour 120 g per cup spooned and leveled; granulated sugar 198–200 g; packed brown sugar 213 g; butter 113 g per stick). Fannie Farmer is commonly credited with popularizing level measures, though standard cups and spoons were also promoted by other cooking-school teachers of her time. The excerpt is copied from the Project Gutenberg transcription, which is of a later (1910) edition; the opening sentence also appears in the 1896 first edition, but we have not compared every word, so we name the edition we copied. The Leviticus inscription on the painting’s lost original frame is reported in an older source and cannot now be confirmed, so the stop says so. Picture: Quentin Matsys, *The Moneylender and His Wife*, 1514, Musée du Louvre, Paris.

PRACTICE

1. **EASY** How many teaspoons are in $\frac{1}{4}$ cup? Show the steps.
2. **EASY** In Farmer’s instructions, how do you measure a half-teaspoonful, and why must the cup not be shaken?
3. **MEDIUM** A recipe makes 24 cookies and needs $2\frac{1}{4}$ cups flour, $\frac{2}{3}$ cup sugar and 1 teaspoon baking soda. Scale it to make 16 cookies. Give each amount in measures you can use.
4. **MEDIUM** Two cooks each use “3 cups of flour.” One scoops (145 g per cup), one spoons and levels (120 g per cup). How many more grams does the scooper use, and by what percent?
5. **CHALLENGE** A bread recipe in baker’s percentages is flour 100%, water 68%, salt 2%, yeast 1.2%. You have exactly 750 g of flour. Give the weight of each other ingredient and the total dough weight. How many 450 g loaves is that?

6. **CHALLENGE** A brownie recipe is written for an 8×8 -inch pan. You want to bake it in a 9×13 -inch pan with the same thickness. By what factor should you scale the recipe? If it calls for $\frac{1}{3}$ cup cocoa, how much will you need?

Make it a game • Measure Ladder Race. One player names an amount (" $\frac{3}{8}$ cup," "5 tablespoons," "1 pint"). The other must build it as fast as possible using only these tools, said aloud: 1 cup, $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ cups, 1 tablespoon, 1 teaspoon, $\frac{1}{2}$ teaspoon. For example, $\frac{3}{8}$ cup = $\frac{1}{4}$ cup + 2 tablespoons. Fewest tools wins the round; a wrong total gives the round to the caller.

Scripture. "A false balance is abomination to the LORD: but a just weight is his delight." (Proverbs 11:1, KJV)

God cares about honest measure because He cares about neighbors. A merchant's scale and a cook's measuring cup are both places where trust is kept or broken. Measuring truly is one small, daily way to delight Him.

Practice: answers

1. $\frac{1}{4}$ cup = 4 tablespoons; $4 \times 3 = 12$ teaspoons.
2. Fill and level the spoon, then divide the contents with a knife lengthwise down the spoon and push one half off. Shaking settles the ingredient and packs more into the cup, so the measure would no longer be a true level cupful.
3. Factor = $16 \div 24 = \frac{2}{3}$. Flour: $\frac{9}{4} \times \frac{2}{3} = \frac{18}{12} = 1\frac{1}{2}$ cups. Sugar: $\frac{2}{3} \times \frac{2}{3} = \frac{4}{9}$ cup ≈ 7 tablespoons ($\frac{4}{9} \times 16 = 7.1$). Baking soda: $\frac{2}{3}$ teaspoon, about $\frac{1}{2}$ teaspoon plus a scant $\frac{1}{4}$ teaspoon.
4. Scooper: 435 g; spooner: 360 g. Difference 75 g. $75 \div 360 \times 100 \approx 21\%$ more flour.
5. Water $0.68 \times 750 = 510$ g; salt $0.02 \times 750 = 15$ g; yeast $0.012 \times 750 = 9$ g. Total = $750 + 510 + 15 + 9 = 1,284$ g. $1,284 \div 450 \approx 2.85$, so two loaves of 450 g with about 384 g left (or three slightly smaller loaves of 428 g).
6. Areas: 64 and 117 square inches. Factor = $117 \div 64 \approx 1.83$ (close to $1\frac{3}{4}$ or 2; many cooks simply use $1\frac{3}{4}$). Cocoa: $\frac{1}{3} \times 1.83 \approx 0.61$ cup. In tablespoons: $0.61 \times 16 \approx 9.8$, so about $\frac{1}{2}$ cup plus 2 tablespoons. (Using $1\frac{3}{4}$ exactly gives $\frac{7}{12}$ cup = $9\frac{1}{3}$ tablespoons, about $\frac{1}{2}$ cup plus $1\frac{1}{3}$ tablespoons.)

1.3 BREAD, THE OLDEST RECIPE

OBJECTIVES

- Explain the science of bread: how gluten forms, how yeast makes gas, and why oven heat sets the loaf.
- Trace bread from flatbread to leavened loaf, and read Exodus 12 closely to explain why Israel ate unleavened bread at the Passover.
- Connect the Passover bread to Jesus' words "I am the bread of life" (John 6:35), and note how Scripture uses leaven as an image in two different ways.

Warm-up. Mix 2 tablespoons of flour with 1 tablespoon of water in a cup and knead it with your fingertips for two minutes. Stretch it. Now rinse the ball gently under a trickle of water, squeezing it, until the water runs clear. What is left in your fingers? Keep it on a saucer; you will name it in this stop.

Video slot. Video coming. How yeast makes bread rise; gluten development and the windowpane test; how matzah is baked for Passover. Search approved channels (King Arthur Baking, America's Test Kitchen, a university food-science channel); preview first.

KEY TERMS

gluten

The stretchy network formed when two wheat proteins, glutenin and gliadin, meet water and are kneaded. It traps gas and gives bread its chew. (It is the rubbery ball left from the warm-up.)

leaven

Anything that makes dough rise. In the Bible it usually means a lump of old fermented dough kept back to start the next batch, much like a sourdough starter.

fermentation

The process by which yeast feeds on sugars in flour and gives off carbon dioxide gas and a little alcohol. The gas raises the dough; the alcohol bakes away.

unleavened bread

Bread made without leaven, flat and quick to bake. In Hebrew *matzah*; eaten by Israel at the Passover and for the seven days of the Feast of Unleavened Bread.

oven spring

The last quick rise of a loaf in the first minutes of baking, as gas expands and yeast works hard before the heat kills it.

staling

The firming of bread over a day or two as its cooked starch slowly re-crystallizes. It is not simply drying out, which is why gentle reheating can soften stale bread for a while.

CORE IDEAS

Bread is made of almost nothing: flour, water, often salt, and sometimes leaven. Its secret is in wheat. Wheat flour contains two proteins, **glutenin** and **gliadin**. When water is added and the dough is kneaded, they link into long, springy chains called **gluten**, the rubbery ball you washed out in the warm-up. Gluten forms a net of thin walls. If gas is produced inside the dough, the net stretches like a thousand tiny balloons and the dough rises. Without gas, the same dough bakes into a flatbread.

Flatbread came first, and it is still the bread of much of the world: the tortilla, the chapati, the pita, the matzah. Archaeologists have found charred crumbs of flatbread on ancient hearths, including at a site in northeastern Jordan called Shubayqa 1, made from wild grains and roots ground to flour. The step to raised bread was taken by at least the time of ancient Egypt, where bakers worked on a large scale. Excavations near the pyramids at Giza have uncovered bakeries with bell-shaped bread pots that fed the work crews, and Egyptian tomb paintings show grain being ground, dough kneaded and loaves baked. Israel lived in Egypt for generations and knew both kinds of bread well.

How did ancient bakers raise bread with no packets of yeast? They used **leaven**: a lump of yesterday's dough, kept back and mixed into today's. That old dough was full of wild yeasts and bacteria from flour and air. The yeasts carry out **fermentation**, eating the sugars released from starch and giving off carbon dioxide; the bacteria add a sour tang. This is exactly a modern sourdough starter. Commercial baker's yeast is recent: in America it was first sold widely in compressed cakes after 1868, and dry yeast became common in the twentieth century. Yeast works best around 75–85 °F, slows in the cold and dies at about 140 °F.

That background makes Exodus 12 vivid. On the night of the first Passover, God commanded Israel to eat the lamb “with unleavened bread” (verse 8), and to keep a seven-day Feast of Unleavened Bread in which all leaven was put out of their houses (verse 15) as a memorial “for ever” (verse 17). Verse 39 gives the practical side: the Egyptians urged them out so fast that the dough they carried had no time to rise, so they baked flat cakes on the way. Leaven needs hours; Israel had no hours to spare. Every Passover since, the flat bread has said: *God brought us out in haste*. Jewish families still sweep their homes of leaven before the feast, and matzah bakeries keep the time from wetting the flour to the oven very short (by long rabbinic tradition, under 18 minutes) so the dough cannot begin to ferment.

Scripture uses leaven as an image in two ways, and it is honest to notice both. Because a little leaven spreads through a whole lump, Paul uses it for sin that spreads: “Purge out therefore the old leaven” (1 Corinthians 5:7). Yet Jesus uses the same spreading power for good: “The kingdom of heaven is like unto leaven” (Matthew 13:33). The image is the same; what spreads makes the difference. Bread itself is never the problem. Israel ate leavened bread the rest of the year, and leavened loaves were offered at the Feast of Weeks (Leviticus 23:17).

In the wilderness God fed Israel with manna, “bread from heaven.” Centuries later, the day after Jesus fed five thousand people with five barley loaves and two fish, a crowd followed Him, hoping for more. He pointed them past the manna and the loaves to Himself: “I am the bread of life” (John 6:35). Bread keeps the body alive one day at a time and must be eaten again tomorrow; Christ gives life that does not run out. He was born in Bethlehem, whose Hebrew name means “house of bread,” and on the night before He died, at the Passover meal, He took bread, gave thanks, broke it and gave it to His disciples.

Back in the kitchen, the numbers are friendly. A plain loaf by baker’s percentages is about 100% flour, 65–70% water, 2% salt and 1–2% yeast. Knead until a small piece stretches thin enough to let light through without tearing (the “windowpane test”). Let it rise until about doubled, shape it, let it rise again, and bake hot (about 425–450 °F). The heat causes **oven spring**, sets the proteins, gelatinizes the starch and browns the crust; the loaf is done at an internal temperature of about 190–210 °F. As it cools and sits, **staling** begins, which is one reason the Lord’s Prayer asks for bread daily.

PICTURE STUDY



The Milkmaid, Johannes Vermeer, c. 1658 · Oil on canvas · Rijksmuseum, Amsterdam
Wikimedia Commons · Public domain

Vermeer of Delft painted only about three dozen pictures that survive, most of quiet rooms lit from a left-hand window. Here a maid pours milk with complete attention. On the table lie chunks of crusty bread, a basket of rolls and a stoneware jug. Many scholars think she is making a bread pudding or a milk porridge that uses up stale bread, which was a careful housewife’s way of wasting nothing. Vermeer painted the crust with tiny raised dots of light-colored paint so that it seems to glitter, as real bread crust does.

Look closely

- Find the bread. How many kinds or shapes can you see? Which pieces look stale and broken?
- Follow the stream of milk. How does Vermeer make it seem to move in a still picture?
- Find the window, the nail and the nail hole on the wall. What do these small details tell you about the painter's attention?

Talk about it

1. If she is making a pudding from stale bread, what does that say about how households valued bread in 1658?
2. Vermeer gave a servant's ordinary work the stillness and light of a sacred painting. How does that fit the Christian idea that daily bread is a gift?

Safety first. Ovens at 450 °F and hot baking stones burn instantly; use thick, dry oven mitts (a damp mitt conducts heat). Pull the rack out rather than reaching in. A parent should handle any very hot stone or cast-iron pan.

HANDS-ON: A LOAF BY BAKER'S PERCENTAGES AND A TIMED UNLEAVENED BREAD

Bake a simple yeast loaf by weight, track its rise with real measurements, and bake a quick unleavened bread in under 18 minutes from first water to oven. Comparing the two shows exactly what leaven does, and why bread made in haste is flat.

You will need

- Kitchen scale, mixing bowls, a clear straight-sided jar or measuring cup, masking tape
- For the loaf: 500 g bread or all-purpose flour, 340 g lukewarm water, 10 g salt, 7 g (one packet, 2¼ tsp) instant or active dry yeast
- For the unleavened bread: 120 g flour, about 70 g water, a pinch of salt (optional); a timer
- A loaf pan or baking sheet, an instant-read thermometer, a ruler

Steps

1. Write the loaf recipe in baker's percentages (flour = 100%). Check: $340 \div 500 = 68\%$ water.
2. Mix the loaf ingredients and knead about 10 minutes until the dough passes the windowpane test. Put a 50 g piece in the clear jar, press it flat and mark its height with tape. Put the rest in an oiled bowl and cover.
3. Every 20 minutes, mark the height of the dough in the jar and write the time. When it has about doubled, record how long it took. Graph height against time.
4. Shape the loaf, let it rise again (about 30–45 minutes), and bake at 425 °F for about 30–35 minutes, to an internal temperature near 200 °F.
5. **Unleavened bread.** Start the timer the moment water touches flour. Mix, knead briefly, roll very thin, prick all over with a fork, and bake on a hot sheet at 475 °F for 3–5 minutes per side until crisp and spotted. Did you reach the oven in under 18 minutes?

6. When both have cooled, slice the loaf and break the flatbread. Measure the loaf's height and draw its crumb (the pattern of holes) next to the flatbread. Explain the difference in two sentences using the words gluten, gas and time.
7. Read Exodus 12:39 aloud at the table while the family tastes both breads.

Check your work

- My loaf recipe is written in grams and in baker's percentages.
- My graph shows the dough rising over time and the doubling time.
- My flatbread was mixed and in the oven quickly, and I recorded the time.
- I can explain from Exodus 12 why Israel's bread was unleavened.

FIELD NOTEBOOK

1. **Recipe book, page 3: Bread.** Write your loaf recipe in grams with its baker's percentages, and your doubling time.
2. Draw a cross-section of each bread, labeled "gas cells held by gluten" and "no leaven, no rise."
3. **Narration.** Write one paragraph explaining the unleavened bread of the Passover: what God commanded, what happened on the night Israel left Egypt (Exodus 12:39), and why Jesus called Himself "the bread of life." A parent keeps this paragraph.

Did you know? Bakers in many countries were once strictly regulated because a town's life depended on its bread. In England the Assize of Bread and Ale, dating from the 1200s, fixed the weight of a penny loaf against the price of grain, and bakers who sold short weight were fined or worse. One explanation often given for the "baker's dozen" of 13 is that bakers added an extra loaf to be sure no order came up short, though the origin is not certain.

Primary source. *Exodus 12:8, 15 and 39, King James Version (1611; standard 1769 text).*

⁸ And they shall eat the flesh in that night, roast with fire, and unleavened bread; and with bitter herbs they shall eat it.

¹⁵ Seven days shall ye eat unleavened bread; even the first day ye shall put away leaven out of your houses: for whosoever eateth leavened bread from the first day until the seventh day, that soul shall be cut off from Israel.

³⁹ And they baked unleavened cakes of the dough which they brought forth out of Egypt, for it was not leavened; because they were thrust out of Egypt, and could not tarry, neither had they prepared for themselves any victual.

Go deeper.

- Peter Reinhart, *The Bread Baker's Apprentice* (2001): the stages of bread making explained clearly, with baker's percentages.

- H. E. Jacob, *Six Thousand Years of Bread* (1944): an old, sweeping history of bread from Egypt to modern times. Read for the story; its dates and some claims are dated.
- Ancient Egypt Research Associates (aeraweb.org), pages on the excavated bakeries at Giza.
- Second video topic: “How sourdough starter works” (preview first).

Goes deeper in. History, “Ancient Egypt and the Exodus,” and Life Science, “Fungi: Yeasts and Molds” (coming soon).

For families. Sources: Exodus 12, 1 Corinthians 5:7, Matthew 13:33, Leviticus 23:17, John 6 (KJV); King Arthur Baking and Harold McGee, *On Food and Cooking*, for gluten, fermentation and baking temperatures; Ancient Egypt Research Associates for the Giza bakeries. The Shubayqa 1 flatbread was reported by Arranz-Otaegui and colleagues in *PNAS* (2018); we name the find but leave out the very early date the researchers assign, since dating methods for such sites are debated and families differ on chronology. The 18-minute rule for matzah is rabbinic tradition, not a command found in Exodus. Fleischmann’s compressed yeast is usually dated to 1868 in America. The “baker’s dozen” origin is uncertain and is labeled so. The Exodus excerpt is copied from the standard KJV text. Picture: Vermeer, *The Milkmaid*, c. 1658, Rijksmuseum (SK-A-2344); the bread-pudding reading is a common interpretation, not a certainty.

PRACTICE

1. **EASY** What two wheat proteins form gluten, and what does gluten do in bread?
2. **EASY** According to Exodus 12:39, why was Israel’s bread unleavened on the night they left Egypt?
3. **MEDIUM** Your dough in a jar measured 3 cm at 1:00, 4 cm at 1:40 and 6 cm at 2:20. About how long did it take to double? Why might it rise faster at the end than at the start?
4. **MEDIUM** Name the two different ways Scripture uses the image of leaven, with a verse for each. What do the two uses have in common?
5. **CHALLENGE** Read Exodus 12:15 and 12:39 in the primary source. One verse gives a command, the other a historical reason. Explain how the two fit together, and why a memorial meal might be built around the bread rather than the lamb alone.
6. **CHALLENGE** A baker wants three loaves of 800 g of dough each, at 100% flour, 70% water, 2% salt and 1.5% yeast. How much flour does she need? (Hint: the total percentage is 173.5%.)

Make it a game · Rise or Not?. A caller names a bread (“tortilla,” “sandwich loaf,” “matzah,” “naan,” “saltine,” “cinnamon roll,” “pita”). Players stand tall on tiptoe for a raised bread or crouch flat for an unleavened one, then must name its leavening: yeast, sourdough, baking powder, or none. A wrong answer makes you the next caller. (Pita and naan are leavened but baked flat and hot; argue it out.)

Scripture. “And Jesus said unto them, I am the bread of life: he that cometh to me shall never hunger; and he that believeth on me shall never thirst.” (John 6:35, KJV)

The crowd wanted more loaves; Jesus offered Himself. The bread we bake today will be gone tomorrow. The Passover bread pointed back to a deliverance from Egypt; the bread of life points to a deliverance that lasts for ever.

Practice: answers

1. Glutenin and gliadin. When wet and kneaded they form an elastic net that traps the carbon dioxide made by yeast, so the dough rises and holds its shape.
2. They were thrust out of Egypt and could not tarry, so the dough they carried had no time to rise; they baked unleavened cakes of it.
3. From 3 cm to 6 cm took 1 hour 20 minutes. Rising speeds up because the yeast population is growing and multiplying, and the dough warms; more yeast cells make more gas each minute.
4. As sin that spreads: “Purge out therefore the old leaven” (1 Corinthians 5:7). As the kingdom of heaven that spreads: “The kingdom of heaven is like unto leaven” (Matthew 13:33). Both rely on the fact that a little leaven works through the whole lump.
5. Verse 39 records what happened: Israel left in such haste that the dough could not rise. Verse 15 turns that event into a yearly command: for seven days all leaven is put away and only unleavened bread is eaten. The command makes every later generation re-live the haste of the Exodus. Bread is eaten at every meal of the week-long feast, so it keeps the memory before the family day after day, while the lamb was eaten on the one night; the flat bread is a reminder that God, not Israel’s planning, brought them out.
6. Total dough = $3 \times 800 = 2,400$ g. Flour = $2,400 \div 1.735 \approx 1,383$ g. Then water ≈ 968 g, salt ≈ 28 g, yeast ≈ 21 g (check: $1,383 + 968 + 28 + 21 = 2,400$).

1.4 PANCAKES AND A HOT BREAKFAST

OBJECTIVES

- Explain how chemical leavening, gluten and griddle heat make a light, browned pancake, and why the first one so often fails.
- Read a 1796 American recipe for johnnycake and translate its measures and methods into modern terms.
- Plan and time a hot breakfast so that every dish reaches the table hot at once.

Warm-up. Think of the last time you ate a pancake that was pale, rubbery or burnt. Write down three things that might have gone wrong. By the end of this stop you should be able to say which one it really was.

Video slot. Video coming. How baking powder works in pancakes; the water-drop test for griddle heat; Shrove Tuesday pancake races. Search approved channels (America's Test Kitchen, King Arthur Baking, a university food-science channel); preview first.

KEY TERMS

batter

A mixture of flour and liquid thin enough to pour, unlike a dough, which is thick enough to knead.

baking powder

A ready-mixed leavening of baking soda, one or two dry acids and starch. When wet (and, for double-acting powder, again when hot) the acid and soda react to make carbon dioxide.

Maillard reaction

The browning reaction between proteins and sugars that begins in earnest above about 280–300 °F and gives pancakes, toast and seared meat their color and savory flavor (named for the French chemist Louis-Camille Maillard, who described it in 1912).

johnnycake

A flat griddle cake of cornmeal (“Indian meal”), an early American food learned from the Native peoples who first grew maize. Also called hoe cake or journey cake; the origin of the names is uncertain.

Shrove Tuesday

The day before Ash Wednesday and the start of Lent, when English households used up eggs, milk and fat before the fast by making pancakes. Hence “Pancake Day.”

reverse schedule

A cooking plan written backward from the moment food is served, so you know when each dish must start.

CORE IDEAS

A cake cooked on a hot stone or griddle is one of the oldest foods in the world, and almost every people has its own: Russian blini, French crêpes, Ethiopian injera, Indian dosa, the American flapjack. Greek writers of the 400s B.C. mention *tagenites*, cakes fried in a pan. In England, pancakes became tied to the church calendar. On **Shrove Tuesday**, the day before Lent, households used up eggs, milk and butter before the fast, and the day is still called Pancake Day. In Olney, Buckinghamshire, women run a pancake race on that day, flipping a pancake in a pan as they go; by local tradition it began in 1445.

In America the first griddle cakes were made of maize. The Native peoples of the Eastern woodlands ground corn and baked flat cakes of it, and English settlers learned from them to cook with “Indian meal.” The **johnnycake** became a staple of New England. In 1796 Amelia Simmons of Hartford, Connecticut, printed a recipe for it in *American Cookery*, the first cookbook written by an American and published in the United States (see the primary source). Simmons scalded the meal with hot milk or water so that the starch softened, and baked the cake “before the fire,” on a board or griddle propped up beside the open hearth.

A modern pancake is a **batter**: flour, milk or buttermilk, egg, a little fat and sugar, and a chemical leavening. Most recipes use **baking powder**, which carries its own acid, or baking soda with an acid such as buttermilk. When the dry and wet ingredients meet, the acid and soda react: $\text{NaHCO}_3 + \text{acid} \rightarrow \text{carbon dioxide} + \text{water} + \text{a salt}$. Double-acting powder releases some gas at once and the rest only when heated. The bubbles you see rising and popping on the surface of a cooking pancake are that gas, and they make the inside light and soft.

Two rules follow from the science. First, **mix only until the flour disappears**; a lumpy batter is fine. Stirring longer develops gluten, the same stretchy net that makes bread chewy, and the pancakes turn tough and flat. Second, **let the batter rest** 5 to 10 minutes while the griddle heats. The flour soaks up liquid, the lumps relax, and the batter thickens slightly. Do not wait too long, though: a single-acting leavening spends its gas, and the cakes lose height.

Heat is where most pancakes fail. A griddle should be about 375 °F, a medium heat on most stoves. Test it by flicking on a few drops of water: if they sit and boil, the pan is too cool; if they skitter and dance as little balls (the Leidenfrost effect, when a cushion of steam lifts the drop), it is ready; if they vanish at once in smoke, it is too hot. The first pancake is so often a failure because the pan is not yet evenly hot and the thin film of fat has not settled. Cook until bubbles break on top and do not fill in and the edges look dry, about 2 to 3 minutes, then flip once. The golden-brown surface is the **Maillard reaction**; sugar and milk in the batter make it happen faster, so very sweet batters scorch more easily.

A hot breakfast is a lesson in timing. Pancakes, eggs, bacon and hot oatmeal all want to be eaten the moment they are cooked, and one cook has one stove. The answer is a **reverse schedule**: decide the serving time and count backward. Bacon can bake on a sheet pan in the oven at 400 °F for 15 to 20 minutes, freeing the stove. Cooked pancakes can wait in a

single layer on a rack in a 200 °F oven. Eggs go last because they overcook fastest; scrambled eggs should be cooked until no liquid egg remains. Setting the table and pouring drinks happen while things cook.

Then there is the syrup. Real maple syrup is the boiled-down sap of the sugar maple. Sap is only about 2 percent sugar, so it takes roughly **40 gallons of sap to make 1 gallon of syrup**; the rest is boiled away as steam. That is why real maple syrup costs several times more than “pancake syrup,” which is mostly corn syrup with flavoring. Honest cooking includes knowing what you are buying and why it costs what it does.

PICTURE STUDY



The Pancake Woman, Rembrandt van Rijn, 1635 · Etching · Rijksmuseum, Amsterdam (impressions also in many other collections, including the Morgan Library & Museum, New York)
Wikimedia Commons · CC0

Pancake sellers were a familiar sight in the streets of Dutch towns, cooking over a little brazier and selling cakes hot. Rembrandt’s etching, signed and dated 1635, is only about 4¼ by 3 inches, yet it is crowded with life: children waiting, a mother with a baby, a toddler guarding his pancake from a hungry little dog. The woman herself pays no attention; she watches her pan. Rembrandt drew the whole scene with quick, sketchy lines, as if he had stopped in the street to draw what he saw.

Look closely

- Find the pan and the fire. How is the pan heated? What fuel might she be using?
- Find the toddler and the dog. What is each one thinking?
- Count the children. How many are watching the pan, and how many are watching something else?

Talk about it

1. The pancake woman is running a small business. What would she need to know about heat, batter and timing to earn a living this way?
2. Rembrandt was famous for Bible scenes and portraits of rich merchants. Why might he also draw a poor street cook? What does it show about how he saw ordinary people?

Safety first. Turn pan handles inward and keep a lid nearby. Bacon fat spatters and can ignite; cook bacon in the oven or at medium heat, never leave it, and pour cooled fat into a can, never down the drain. Use a thin, wide spatula and lift pancakes away from you. Eggs must be cooked until set.

HANDS-ON: A PANCAKE EXPERIMENT AND A TIMED FAMILY BREAKFAST

Test the two pancake rules with a controlled experiment, then cook a full hot breakfast for your family on a reverse schedule. Record the results as page 4 of your recipe book.

You will need

- For the batter: 2 cups (240 g) flour, 2 tablespoons sugar, 4 teaspoons baking powder, ½ teaspoon salt, 1¾ cups milk, 2 eggs, 3 tablespoons melted butter
- A griddle or heavy skillet, a wide spatula, a ruler, a ¼-cup measure
- A second breakfast dish (eggs, oatmeal or oven bacon) and fruit
- A clock and a notebook

Steps

1. Whisk the dry ingredients in one bowl and the wet in another. Pour the wet into the dry and fold *only* until no dry flour shows. Lumps are fine.
2. Take out ½ cup of batter into a small bowl and whisk it hard for 2 full minutes. Label it “overmixed.”
3. Heat the griddle and do the water-drop test until the drops dance. Record how many minutes it took.
4. Cook one ¼-cup pancake from each batter side by side. Flip when the bubbles break and stay open. Measure the thickness of each with a ruler, cut them open and compare texture. Write down which is taller and more tender, and explain why using the word gluten.
5. Write a reverse schedule for breakfast. Choose a serving time (say 8:00) and work backward: when to start the oatmeal or bacon, when to mix the batter, when to set the table, when to scramble the eggs.
6. Cook the breakfast following your schedule. Keep finished pancakes in a 200 °F oven on a rack. At the end note what time the food actually reached the table and what you would change.
7. Read John 21:9–12 aloud at the table: a breakfast Jesus Himself cooked.

Check your work

- I compared a properly mixed and an overmixed pancake and measured the difference.
- I used the water-drop test and know how long my griddle needs to heat.
- I wrote a reverse schedule and served a hot breakfast within 10 minutes of my planned time.
- I cleaned the griddle and disposed of fat safely.

FIELD NOTEBOOK

1. **Recipe book, page 4: Pancakes.** Write your pancake recipe, your griddle heat-up time, and your experiment result in one sentence.
2. Copy your reverse schedule as a timeline and mark where you fell behind.
3. Rewrite Simmons’s johnnycake recipe in modern measures (see practice question 5).
4. **Narration.** Write one paragraph explaining to someone who has never cooked why their first pancake failed and how to make the second one right. Use at least three facts from this stop. A parent keeps this paragraph.

Did you know? Before baking powder was sold in tins (from the 1850s and 1860s), cooks lightened griddle cakes with beaten eggs, with yeast set overnight (old buckwheat cakes were raised this way), or with soda and sour milk. Buckwheat is not a kind of wheat at all; it is the seed of a plant related to rhubarb, and it has no gluten.

Primary source. *Amelia Simmons, American Cookery (Hartford, 1796), “Johny Cake, or Hoe Cake.” Project Gutenberg eBook #12815. Spelling as in the original; “flower” means flour and “Indian meal” means cornmeal.*

Scald 1 pint of milk and put to 3 pints of Indian meal, and half pint of flower—bake before the fire. Or scald with milk two thirds of the Indian meal, or wet two thirds with boiling water, add salt, molasses and shortening, work up with cold water pretty stiff, and bake as above.

Go deeper.

- Amelia Simmons, *American Cookery* (1796), free at Project Gutenberg. Short enough to read in an evening; look for the corn recipes and the “Indian Slapjack.”
- Michigan State University Libraries, *Feeding America: The Historic American Cookbook Project*: page images of Simmons and dozens of other early American cookbooks.
- Massachusetts Maple Producers Association or a state extension service: how maple sap is collected and boiled.
- Second video topic: “How maple syrup is made, from tree to bottle” (preview first).

Goes deeper in. History, “Colonial America: Daily Life,” and Arithmetic, “Ratios and Rates” (coming soon).

For families. Sources: Harold McGee, *On Food and Cooking*, and King Arthur Baking for leavening, gluten and griddle temperature; USDA FSIS for egg doneness; the Olney Pancake Race organizers for the race and its traditional 1445 date (a local tradition, not a documented record); Massachusetts and Vermont maple producers for the roughly 40-to-1 sap-to-syrup ratio (it varies with the sugar content of the sap). The Greek *tagenites* are mentioned by ancient comic poets quoted in Athenaeus; the stop gives only the century. The Leidenfrost effect is named for Johann Gottlob Leidenfrost (1756); the dancing begins at somewhat different temperatures on different surfaces. The Simmons recipe is copied from the Project Gutenberg text (the plain-text double hyphen is shown as a dash). Picture: Rembrandt, *The Pancake Woman*, etching, 1635, Rijksmuseum (RP-P-OB-340 and other impressions).

PRACTICE

1. **EASY** Why do bubbles appear and pop on top of a cooking pancake?
2. **EASY** Describe the water-drop test and what each result means.
3. **MEDIUM** A friend whisked her pancake batter smooth for 3 minutes and got flat, rubbery pancakes. Explain what happened and how to fix it.
4. **MEDIUM** It takes about 40 gallons of sap to make 1 gallon of maple syrup. A family taps trees and collects 130 gallons of sap. How many cups of syrup should they expect? (1 gallon = 16 cups.)
5. **CHALLENGE** Rewrite Simmons's first johnnycake method in modern cups (1 pint = 2 cups). What is the ratio of liquid to cornmeal to flour? Then explain why she "scalds" the meal.
6. **CHALLENGE** Breakfast is at 7:45. Oven bacon takes 18 minutes plus 5 minutes to preheat; pancakes take 20 minutes to cook in batches and can be held in the oven; scrambled eggs take 6 minutes; setting the table takes 8 minutes; mixing batter takes 5 minutes and it should rest 10. One cook, one oven, one griddle and one burner for eggs. Write a reverse schedule.

Make it a game • Olney Flip Relay. Outdoors or in a clear room, each runner carries a frying pan with a cold practice pancake (a felt circle or a real cold pancake). Run to a cone, flip the pancake at least once, and run back to hand the pan to the next player. A dropped pancake must be picked up and flipped again before going on. Afterward, find Olney, England, on a map.

Scripture. "Jesus saith unto them, Come and dine. And none of the disciples durst ask him, Who art thou? knowing that it was the Lord." (John 21:12, KJV)

After His resurrection, Jesus met His tired disciples at dawn by the Sea of Tiberias with a fire of coals, fish and bread already cooking (John 21:9). The risen Lord made breakfast. Serving a hot meal at the start of someone's day is a humble, Christlike act of hospitality.

1. The baking powder (soda plus acid) makes carbon dioxide gas when wet and again when hot. The gas rises through the batter and breaks at the surface; when the bubbles stay open, the batter has set enough to flip.
2. Flick a few drops of water on the griddle. If they sit and boil, it is too cool. If they skitter and dance as balls, it is ready (about 375 °F). If they vanish instantly in a puff, it is too hot.
3. Long whisking developed gluten in the wheat flour, making the batter elastic so the cakes were tough, and some of the gas from the leavening was beaten out. Next time stir only until the dry flour disappears, leave the lumps, and rest the batter 5-10 minutes.
4. $130 \div 40 = 3.25$ gallons; $3.25 \times 16 = 52$ cups of syrup.
5. Scald 2 cups of milk and pour it over 6 cups of cornmeal and 1 cup of flour; shape and bake before the fire (on a griddle or board). Ratio milk : meal : flour = 2 : 6 : 1. Scalding with hot liquid softens and partly cooks the coarse cornmeal starch, so the cake holds together and is not gritty; cornmeal has no gluten, so it needs this help (and a little wheat flour) to bind.
6. One workable plan: 7:00 preheat oven; 7:00-7:05 mix batter (rests till 7:15); 7:05 bacon in oven (done 7:23), then lower oven to 200 °F for holding; 7:05-7:13 set the table; 7:15-7:35 cook pancakes, moving them to the warm oven; 7:37-7:43 scramble eggs; 7:45 serve. Any schedule is correct if bacon and pancakes finish before the eggs start, the batter rests 10 minutes, and the eggs finish just before 7:45.

1.5 SOUP FOR A COLD DAY

OBJECTIVES

- Explain how a stock is made and why it is simmered, not boiled: collagen, gelatin, skimming and reduction.
- Use the physics of boiling (including altitude) and the food-safety rules for cooling a large pot of soup.
- Trace soup through history as the food of thrift and charity, and read an 1832 soup recipe critically.

Warm-up. Look in your refrigerator and pantry and list everything that could go into a soup tonight without a trip to the store: bones, a heel of bread, half an onion, a carrot, leftover rice, beans. Circle anything that would otherwise be thrown away.

Video slot. Video coming. How to make chicken or beef stock from bones; simmering versus boiling; how to cool a large pot of soup safely. Search approved channels (America's Test Kitchen, USDA Food Safety and Inspection Service, a university extension channel); preview first.

KEY TERMS

stock

A flavored liquid made by simmering bones (and usually vegetables and herbs) in water for hours. It is the foundation of most soups and sauces. Broth is similar but made mostly from meat and usually seasoned to eat as it is.

collagen and gelatin

Collagen is the tough protein in bones, skin and connective tissue. Long, gentle heat in water breaks it down into gelatin, which gives good stock its body and makes it set like jelly when cold.

simmer

To cook liquid just below a boil, at roughly 180-205 °F, with small bubbles breaking now and then at the surface.

mirepoix

The French base of chopped onion, carrot and celery, usually in a ratio of 2 : 1 : 1 by weight (say "meer-PWAH").

reduction

Boiling off water to concentrate flavor. Reducing a stock by half doubles the strength of everything dissolved in it, including salt.

pottage

An old word (used in the King James Bible) for a thick soup or stew cooked in a pot, often of grains, beans, lentils or herbs.

CORE IDEAS

Soup is one of the oldest ways to cook, because it needs only a pot that can stand the fire, water, and whatever the household has. The English word comes through French *soupe* from an old word for a piece of bread soaked in broth, the “sop”; for centuries soup was poured over bread. Scripture is full of pottage: Jacob’s red lentil pottage, for which hungry Esau sold his birthright (Genesis 25), and the great pot of pottage set on by Elisha’s servant in a time of famine (2 Kings 4). Soup stretches a little food to feed many, and that is its glory.

Good soup begins with **stock**. Bones, especially joints, knuckles and chicken backs and wings, are rich in **collagen**. In water held just below the boil for hours, the collagen slowly breaks down into **gelatin**, which gives the stock body; a good stock sets like jelly in the refrigerator. Chicken stock needs about 3 to 4 hours, beef stock longer. Vegetables go in for the last hour or two: the **mirepoix** of onion, carrot and celery (2 : 1 : 1 by weight), with herbs such as bay leaf, thyme and parsley stems.

Why **simmer** and not boil? A hard boil churns fat and tiny bits of protein into the liquid as a cloudy emulsion and makes the meat stringy. At a simmer, proteins rise and gather as gray foam, which the cook skims off with a spoon. Both Amelia Simmons in 1796 and Lydia Maria Child in 1832 tell the reader to “scum” or skim. Salt comes last. As Child warns in the primary source, salt is easy to add and hard to take away, and if you **reduce** a stock by boiling, any salt in it becomes twice as strong.

Boiling itself is physics. Water boils when its vapor pressure equals the pressure of the air above it: 212 °F (100 °C) at sea level. Higher up, the air presses less, so water boils cooler, about 1 °F lower for every 500 feet. In Denver (5,280 feet) water boils near 202 °F, so beans and stews take noticeably longer. A pressure cooker works the other way: by trapping steam it raises the pressure, and at about 15 pounds per square inch above normal, water boils near 250 °F, cooking a tough stew in a fraction of the time.

Soup has long been the food of charity. In the 1790s an American-born scientist, Benjamin Thompson, better known as Count Rumford, set up kitchens in Munich to feed the poor and worked out by experiment a cheap, filling soup of pearl barley, dried peas, potatoes and bread; “Rumford soup” was copied across Europe. Churches, missions and city charities opened **soup kitchens** in hard winters, and they have fed the hungry in every depression since. The word *restaurant* itself comes from soup: in Paris in the 1760s and 1770s, shops sold small bowls of rich, “restoring” broth called *restaurants*, and the name moved from the bowl to the room.

A big pot of soup brings one real hazard. A gallon of hot soup cools slowly and can sit for hours in the danger zone. Some bacteria, such as *Clostridium perfringens*, form spores that survive cooking and multiply as a pot cools on the stove. Food-safety rules for restaurants require cooked food to drop from 135 °F to 70 °F within 2 hours and to 41 °F within 6 hours total. At home, divide the soup into shallow containers, or set the pot in a sink of ice water and stir, before refrigerating. When reheating, bring soup to a full boil.

Here is the honest complexity. Soup is thrift, but thrift is not stinginess. Child's recipe below boils the bones "left of roast meat" so that nothing is wasted, and Rumford measured exactly how little a nourishing bowl could cost. Yet the best soup kitchens and the best family tables do not merely fill stomachs; they serve generously and gladly. Jesus, who multiplied loaves, also commanded, "Gather up the fragments that remain, that nothing be lost" (John 6:12). Thrift and generosity are partners: waste nothing, so you can give more.

PICTURE STUDY



The Kappel Milk Soup (Die Kappeler Milchsuppe), Albert Anker, 1869 · Oil on canvas · Kunsthhaus Zürich, Switzerland
Wikimedia Commons · Public domain

In June 1529 the Protestant city of Zürich and the Catholic cantons of central Switzerland marched their armies to the border near Kappel. While leaders negotiated, the soldiers on the outposts, many of whom had fought side by side in earlier wars, set a great pot on the boundary line. The men from the Catholic mountain cantons supplied the milk, the Zürich men supplied the bread, and both sides ate from the same pot. The first Peace of Kappel was signed without a battle. The story is told by men who were there, such as the chronicler Johannes Stumpf, and by the Zürich pastor Heinrich Bullinger in his history of the Reformation. Albert Anker, the much-loved Swiss painter of village life, painted the scene in 1869.

Look closely

- Find the pot. Where is it placed, and how many men can reach it?
- Find the weapons. Where have the soldiers put them?
- Look at the faces. Which men seem at ease, and which seem watchful?

Talk about it

1. The peace did not last: war came again in 1531. Does that make the milk soup less worth remembering? Why or why not?
2. What does sharing one pot of food say that a written treaty cannot?

Safety first. A full stockpot is heavy and full of scalding liquid. Do not carry it; ladle or strain it with a parent's help, pouring away from you. Keep children and pets out of the path between stove and sink. Do not leave a simmering pot when you leave the house.

HANDS-ON: STOCK, SOUP, A COST SHEET AND A COOLING LOG

Make a real stock from bones and scraps, turn it into a soup for your family, work out what each bowl cost, and record how fast it cools. This is page 5 of your recipe book.

You will need

- About 3 pounds of chicken bones, backs and wings (or the carcass of a roast chicken), or beef soup bones
- 1 onion, 1 carrot, 1 celery rib (weigh them), bay leaf, peppercorns, parsley stems
- A large pot, a ladle, a strainer, shallow containers, an instant-read thermometer
- For the soup: more vegetables, noodles, rice or barley, salt and pepper
- Store receipts or a grocery website for prices

Steps

1. Put the bones in the pot, cover with cold water by about 1 inch, and bring slowly toward a boil. Lower the heat to a bare simmer. Check the temperature with your thermometer and record it.
2. Skim off the gray foam that rises during the first 30 minutes. Simmer 3–4 hours for chicken, adding the onion, carrot, celery and herbs for the last 1½ hours. Check that your vegetables were close to 2 : 1 : 1 by weight.
3. Strain the stock. Measure how much you have. Save a few spoonfuls in a cup in the refrigerator overnight to see whether it sets into jelly (evidence of gelatin).
4. Make soup: bring the stock to a boil, add vegetables and a grain or noodles, cook until tender, then salt to taste at the end, a little at a time.
5. **Cost sheet.** List every ingredient with its price and the portion you used. Total the cost, divide by the number of bowls, and compare with the price of a can of soup.
6. **Cooling log.** Divide leftover soup into shallow containers. Take the temperature at the start and every 30 minutes. Did it reach 70 °F within 2 hours? Then refrigerate.
7. Serve the soup on a cold evening and read 2 Kings 4:38–41 at the table.

Check your work

- I simmered the stock without a hard boil and recorded the temperature.
- My stock set into jelly when cold (or I can explain why it did not).
- My cost sheet shows the cost per bowl.
- My cooling log shows the soup passed 70 °F within 2 hours.

FIELD NOTEBOOK

1. **Recipe book, page 5: Stock and soup.** Write your stock and soup recipe with weights, cost per bowl and cooling times.
2. Draw a pot with arrows showing collagen turning to gelatin, foam rising to be skimmed, and steam carrying water away during reduction.
3. **Narration.** Tell the story of the Kappel milk soup in one written paragraph, in your own words, and end with one sentence on why sharing food can make peace. A parent keeps this paragraph.

Did you know? During the American War for Independence the Continental Army ate “pepper pot,” a thick, peppery soup of tripe and vegetables associated with Philadelphia, especially in the hard winter at Valley Forge (1777–1778). The story that it was invented there by a baker to save the army is a legend, but the soup was real and was sold by street vendors in Philadelphia for generations.

Primary source. *Lydia Maria Child, The American Frugal Housewife (1832 edition), “Beef Soup.” Project Gutenberg eBook #13493. “Catsup” is ketchup; “&c.” means “and so on.”*

Beef soup should be stewed four hours over a slow fire. Just water enough to keep the meat covered. If you have any bones left of roast meat, &c. it is a good plan to boil them with the meat, and take them out half an hour before the soup is done. A pint of flour and water, with salt, pepper, twelve or sixteen onions, should be put in twenty minutes before the soup is done. Be careful and not throw in salt and pepper too plentifully; it is easy to add to it, and not easy to diminish. A lemon, cut up and put in half an hour before it is done, adds to the flavor. If you have tomato catsup in the house, a cupful will make soup rich.

Go deeper.

- Lydia Maria Child, *The American Frugal Housewife*, free at Project Gutenberg. Read the introductory chapter on “gathering up all the fragments.”
- Benjamin Thompson, Count Rumford, “Of Food; and Particularly of Feeding the Poor,” in his *Essays, Political, Economical, and Philosophical* (1796), available on HathiTrust and Internet Archive.
- Swiss National Museum blog (blog.nationalmuseum.ch), “Peace of Kappel”: the history behind the milk soup.
- Second video topic: “How a pressure cooker works” (preview first).

Goes deeper in. History, “The Reformation in Switzerland: Zwingli and Bullinger,” and Earth Science, “Air Pressure and the Atmosphere” (coming soon).

For families. Sources: Harold McGee, *On Food and Cooking*, for collagen, gelatin and stock; USDA FSIS on cooling and reheating leftovers; the FDA Food Code (cooling from

135 °F to 70 °F in 2 hours and to 41 °F within 6 hours) for the restaurant standard; Kunsthaus Zürich's catalogue entry for the Anker painting and the sources of the Kappel story (Johannes Stumpf, Heinrich Bullinger); Rebecca Spang, *The Invention of the Restaurant* (2000), for the restorative broths of 1760s Paris (the older story crediting a single cook named Boulanger is doubtful and is left out). The pepper-pot story at Valley Forge is labeled a legend. The boiling-point rule (about 1 °F per 500 feet) is an approximation. Child's recipe is copied from the Project Gutenberg text; her "twelve or sixteen onions" are probably small ones. The 1531 war in which Zwingli was killed is mentioned only in passing.

PRACTICE

1. **EASY** Why should stock be simmered rather than boiled hard?
2. **EASY** In the Kappel story, which side brought the milk and which brought the bread?
3. **MEDIUM** You make 3 quarts of stock with ½ teaspoon of salt in it, then reduce it to 1 quart for a sauce. How salty is the sauce compared with the stock, and what lesson does Child's recipe teach about this?
4. **MEDIUM** About what temperature does water boil at 8,000 feet? Why does pasta take longer to cook there?
5. **CHALLENGE** Read Child's "Beef Soup." List her steps in order with their times, starting from the moment the meat goes in, assuming the soup cooks exactly 4 hours. What does she do to avoid waste, and which instruction would a modern food scientist praise?
6. **CHALLENGE** A pot of soup is 180 °F at 6:00 p.m. Left on the stove, it cools to 135 °F by 6:45, 110 °F by 7:45 and 85 °F by 9:15. Under the 2-hour rule for cooling from 135 °F to 70 °F, is it on track? What should the cook have done?

Make it a game • Stone Soup Round. Tell the old folktale of "Stone Soup," in which a traveler persuades a stingy village to add one ingredient each to a pot that holds only a stone. Then play it: each player names one real ingredient and the reason it belongs (flavor, body, color or nourishment). An ingredient that repeats, or that would spoil the soup, is out. When no one can add more, write the finished recipe on a card.

Scripture. "So they poured out for the men to eat. And it came to pass, as they were eating of the pottage, that they cried out, and said, O thou man of God, there is death in the pot. And they could not eat thereof. But he said, Then bring meal. And he cast it into the pot; and he said, Pour out for the people, that they may eat. And there was no harm in the pot." (2 Kings 4:40-41, KJV)

In a famine, a man gathered wild gourds he did not know and shred them into the prophets' pot of pottage. God, working through Elisha, made the poisoned soup safe. The story is a miracle, not a recipe, but it reminds every cook to know what goes into the pot, and that God provides for His people even in lean years.

Practice: answers

1. A hard boil churns fat and protein bits into the liquid and makes it cloudy and greasy, and toughens the meat. A gentle simmer lets proteins rise as foam to be skimmed and slowly turns collagen into gelatin.
2. The Catholic men of the mountain (central Swiss) cantons brought the milk; the men of Protestant Zürich brought the bread.
3. The same $\frac{1}{2}$ teaspoon of salt is now in one third of the liquid, so the sauce is three times as salty per cup. Child warns that salt is “easy to add to it, and not easy to diminish”: salt at the end, after reducing.
4. About $212 - (8,000 \div 500) = 212 - 16 = 196$ °F. The water is cooler even at a full boil, so heat enters the food more slowly and cooking takes longer.
5. 0:00 meat (and any roast bones) in, covered with water, over a slow fire. 3:30 take out the bones and add the cut-up lemon. 3:40 add a pint of flour and water (to thicken), with salt, pepper and 12-16 onions. 4:00 done; add a cupful of catsup if you have it. She avoids waste by boiling leftover roast bones and using what is in the house. A scientist would praise the slow fire (a simmer extracts gelatin and keeps it clear) and her caution with salt, since salt cannot be removed.
6. From 135 °F at 6:45, it must reach 70 °F by 8:45. At 9:15 it is still 85 °F, so it failed; it spent too long in the range where spore-forming bacteria grow. The cook should have divided the soup into shallow containers or cooled the pot in an ice-water bath, stirring, then refrigerated it.

1.6 COOKIES AND THE SCIENCE OF BAKING

OBJECTIVES

- Name the four ways baked goods rise (yeast, chemical leavening, air and steam) and explain the chemistry of baking soda and baking powder.
- Trace chemical leavening from the pearlash of a 1796 cookie recipe to modern baking powder.
- Run a controlled baking experiment, changing one variable at a time, and explain the results.

Warm-up. Put ½ teaspoon of baking soda in one glass and ½ teaspoon of baking powder in another. Add 2 tablespoons of plain water to each and watch. Then add a splash of vinegar to the soda. Write down what happened in each glass and guess why.

Video slot. Video coming. Baking soda versus baking powder; the chemistry of cookie spread; creaming butter and sugar. Search approved channels (America's Test Kitchen, King Arthur Baking, the American Chemical Society's Reactions channel); preview first.

KEY TERMS

leavening

Whatever makes a dough or batter rise by filling it with gas: yeast (biological), baking soda or powder (chemical), beaten air (mechanical) or steam.

baking soda

Sodium bicarbonate, NaHCO_3 , a base. With an acid and moisture it releases carbon dioxide. Needs an acid in the recipe, such as buttermilk, brown sugar, molasses, yogurt or natural cocoa.

baking powder

Baking soda mixed with dry acid salts and cornstarch, so it supplies its own acid. Double-acting powder reacts once when wet and again when heated.

pearlash

Potassium carbonate refined from wood ashes, used as a leavening by early American cooks before baking soda; it reacted with sour milk or other acids to make gas.

creaming

Beating soft butter with sugar until light and fluffy. Sugar crystals cut tiny air pockets into the fat, which the leavening later enlarges.

caramelization

The browning of sugar itself by heat (table sugar begins near 320 °F), different from the Maillard reaction, which needs protein as well as sugar.

CORE IDEAS

The word *cookie* came into American English from the Dutch *koekje*, “little cake,” brought by the settlers of New Netherland (later New York). In 1796 Amelia Simmons printed recipes for “Cookies” and a “Christmas Cookey” in *American Cookery*, among the earliest uses of the word in an American cookbook. Her cookies are leavened with **pearlash**, a refined form of potash from wood ashes. Simmons’s book is often credited as the first American cookbook to call for a chemical leavening, which makes her plain cookie recipe (see the primary source) a small landmark in the history of science in the kitchen.

Baked goods rise in four ways. **Yeast** ferments sugar and makes carbon dioxide slowly, over hours, as in bread. **Chemical leavening** makes carbon dioxide in minutes. **Air** is beaten in by creaming butter and sugar or whipping eggs. **Steam** forms when the water in dough reaches the boiling point and expands about 1,700 times in volume, which is how cream puffs and popovers rise with no leavening at all. Most cookies use the second and third methods together: creaming makes thousands of tiny air pockets, and the chemical leavening fills and enlarges them.

The chemistry is an acid-base reaction. Baking soda is sodium bicarbonate, a base: $\text{NaHCO}_3 + \text{H}^+ \rightarrow \text{Na}^+ + \text{H}_2\text{O} + \text{CO}_2$. The acid can come from buttermilk, yogurt, brown sugar, molasses, honey or natural cocoa. If there is too little acid, leftover soda gives a soapy, metallic taste and a darker, more alkaline cookie (a higher pH speeds browning). **Baking powder** solves the problem by packaging the acid with the soda, kept dry and separate by cornstarch. A common rule of thumb is about 1 teaspoon of baking powder per cup of flour, or ¼ teaspoon of baking soda per cup of flour when the recipe has acid; soda is roughly three to four times as strong as powder.

This chemistry has a history. Pearlash worked but tasted harsh. In the 1840s American cooks switched to “saleratus” (potassium or sodium bicarbonate), and in 1846 John Dwight and Austin Church began selling the baking soda that became Arm & Hammer. In England in 1843 the chemist Alfred Bird mixed a baking powder, reportedly so his wife, who could not eat eggs or yeast, could have bread and custard. In America Eben Horsford, a Harvard chemistry professor, developed a phosphate baking powder sold by the Rumford Chemical Works (named for Count Rumford, whose bequest to Harvard funded the professorship Horsford held). Cheap, reliable leavening changed home baking more than any other invention of the century.

In the oven, three things happen in order. First, the butter melts and the dough begins to **spread**; the gas cells expand, because gas grows with absolute temperature (from 70 °F, about 294 K, to 212 °F, 373 K, a trapped bubble swells about 27 percent even before steam joins it). Second, at about 140–180 °F the egg and flour proteins set and the starch swells, fixing the shape. Third, the surface browns by the Maillard reaction and **caramelization**. The race between spreading and setting decides whether a cookie is thin and crisp or thick and soft.

Every ingredient pushes that race one way or the other. Melted butter spreads more than creamed butter; chilled dough spreads less because the fat takes longer to melt. White sugar makes cookies crisper and wider; brown sugar, which carries molasses, holds moisture and makes them chewier. More flour, or bread flour with more protein, makes them thicker and more cakey. A hotter oven sets the edges sooner. Good cooks learn this by testing **one variable at a time** while keeping everything else the same, which is exactly how a scientist works.

Here is the honest complexity: science explains why a recipe works, but it does not replace the cook's judgment. Ovens run hot or cool, flour varies with the harvest, and humidity changes how dough behaves. That is why recipes still say "until golden at the edges" instead of giving only a time. When Ruth Wakefield of the Toll House Inn in Whitman, Massachusetts, cut a chocolate bar into her butter cookie dough in the 1930s and created the chocolate chip cookie, she was relying on skill and taste, not only on chemistry. Knowledge and skill grow together.

PICTURE STUDY



The Baker Arend Oostwaert and His Wife, Jan Steen, c. 1658 · Oil on panel · Rijksmuseum, Amsterdam
Wikimedia Commons · Public domain

Jan Steen was a Dutch painter famous for crowded, comic scenes, but this is a portrait of real people: the Leiden baker Arend Oostwaert and his wife. Steen himself was the son of a brewer and kept a tavern for a time, so he knew tradesmen well. Dutch bakers blew a horn to tell the neighborhood that fresh bread was out of the oven, and here a boy is blowing it. On the counter are many kinds of baked goods, from plain loaves to pretzels and festive sweet breads, each made with different doughs and different ways of rising.

Look closely

- Count the different kinds of baked goods on the counter. Which ones look like yeast breads, and which might be cakes or biscuits?
- Find the horn. What is it for?
- Look at the baker's and his wife's faces and clothing. What do they tell you about how they saw their trade?

Talk about it

1. Why would a Dutch baker want his portrait painted showing his goods rather than in his best clothes in a parlor?
2. The baker's horn was a kind of advertising. How do bakeries tell people about fresh goods today?

Safety first. Oven racks and cookie sheets stay hot long after you take them out; use dry mitts and set sheets on a rack or trivet. Do not taste raw cookie dough: raw flour and raw eggs can carry *E. coli* and *Salmonella*. The warm-up reactions are safe, but do not taste them.

HANDS-ON: THE COOKIE EXPERIMENT: ONE DOUGH, FIVE BATCHES

Make one simple sugar-cookie dough, divide it, and change one thing in each batch. Measure, photograph and taste the results, and write a short lab report. The winning version becomes page 6 of your recipe book.

You will need

- Dough: 1 cup (226 g) butter, softened; 1 cup (200 g) sugar; 1 egg; 1 teaspoon vanilla; 2½ cups (300 g) flour; ½ teaspoon salt (leavening added per batch, below)
- Baking soda, baking powder, a little vinegar or buttermilk
- Two cookie sheets, parchment, a kitchen scale, a ruler, a timer
- Small bowls and labels

Steps

1. Cream the butter and sugar for 3 minutes until pale and fluffy. Beat in the egg and vanilla. Mix in the flour and salt. Weigh the dough and divide it into five equal parts.
2. Batch A (control): no leavening. Batch B: knead in ¼ teaspoon baking powder. Batch C: knead in ⅛ teaspoon baking soda only. Batch D: ⅛ teaspoon baking soda plus ½ teaspoon buttermilk or a few drops of vinegar. Batch E: same as B, but chilled 1 hour before baking.
3. Shape each batch into balls of exactly 25 g. Bake on parchment at 350 °F for 10–12 minutes, the same time for all, until the edges are just golden. Bake the batches on the same rack.
4. Cool 10 minutes. For each batch, measure the diameter and height of three cookies and average them. Note color, taste and texture.

5. Make a table and a bar graph of diameter and height. Which batch spread most? Which rose highest? Which tasted soapy or looked darker?
6. Write a lab report: question, hypothesis, method, results and conclusion. Use the words acid, base, carbon dioxide and spread.
7. Read Simmons's 1796 recipe and decide which of your batches is closest to it.

Check your work

- I changed only one variable per batch and kept ball size, oven and time the same.
- My table and graph show averages of three cookies.
- My conclusion explains the soda-only batch using acid and base.
- I can say why chilling changed the spread.

FIELD NOTEBOOK

1. **Recipe book, page 6: Cookies.** Write your best cookie recipe and one sentence on what each ingredient does.
2. Draw a cookie in cross-section at three moments in the oven: butter melting and spreading; gas cells growing; proteins set and edges browned.
3. **Narration.** Write one paragraph explaining to a younger child why a cookie rises, using the history from pearl ash to baking powder. A parent keeps this paragraph.

Did you know? Before chemical leaveners, some bakers used “hartshorn,” ammonium carbonate (originally made from deer antlers). It breaks down completely into gases in the oven and gives very crisp cookies. It is still used in some traditional Scandinavian and German Christmas cookies, and it smells strongly of ammonia while baking, though the smell disappears in the finished cookie.

Primary source. *Amelia Simmons, American Cookery (Hartford, 1796), “Cookies.” Project Gutenberg eBook #12815. Spelling as in the original: “scum” means skim; “roles” means rolls; a “slack oven” is a cool oven.*

One pound sugar boiled slowly in half pint water, scum well and cool, add two tea spoons pearl ash dissolved in milk, then two and half pounds flour, rub in 4 ounces butter, and two large spoons of finely powdered coriander seed, wet with above; make roles half an inch thick and cut to the shape you please; bake fifteen or twenty minutes in a slack oven—good three weeks.

Go deeper.

- Shirley O. Corriher, *BakeWise: The Hows and Whys of Successful Baking* (2008): a food chemist explains spreading, rising and browning with experiments.
- American Chemical Society, ChemMatters and “Reactions” articles and videos on the chemistry of baking (acs.org).

- Amelia Simmons, *American Cookery*, at Project Gutenberg: compare her “Cookies” and “Christmas Cookey.”
- Second video topic: “Why cookies spread: butter, sugar and temperature” (preview first).

Goes deeper in. Life Science, “Matter and Chemical Change” and “Fungi: Yeasts and Molds,” and Small Business & Economics, “Seven Small Businesses: The Bakery” (coming soon).

For families. Sources: Harold McGee, *On Food and Cooking*, and Shirley Corriher, *BakeWise*, for leavening chemistry, spread and setting temperatures; Church & Dwight company history for the 1846 date; standard histories for Alfred Bird (1843) and Eben Horsford’s Rumford baking powder. The claims that Simmons was the first to print “cookie” and the first to use a chemical leavener in an American cookbook are widely made by food historians but hard to prove absolutely, so the stop says “among the earliest” and “often credited.” The Bird story about his wife is the family’s traditional account, labeled “reportedly.” Ruth Wakefield’s chocolate chip cookie is usually dated to about 1938; the Toll House recipe is not quoted. The warm-up and experiment are safe for children with supervision. The Simmons recipe is copied from the Project Gutenberg text (the plain-text double hyphen is shown as a dash). Picture: Jan Steen, *The Baker Arend Oostwaert and His Wife*, c. 1658, Rijksmuseum (SK-A-390).

PRACTICE

1. **EASY** Name the four ways a baked good can rise and give one food for each.
2. **EASY** In the warm-up, why did baking powder bubble in plain water while baking soda did not, until vinegar was added?
3. **MEDIUM** A recipe uses 2 cups of flour, 1 cup of buttermilk and 2 teaspoons of baking powder. You have no baking powder, only baking soda. Roughly how much soda could you use, and why will it work in this recipe?
4. **MEDIUM** Your cookies came out thin, flat and greasy. Give three possible causes and a fix for each.
5. **CHALLENGE** Read Simmons’s “Cookies.” What is the leavening, what acid might react with it, and what is the ratio of sugar to flour to butter by weight? Compare it with a modern sugar cookie of 200 g sugar, 300 g flour and 226 g butter.
6. **CHALLENGE** A gas bubble in cookie dough has a volume of 0.10 cubic millimeters at 68 °F (293 K). Using Charles’s law ($V_1/T_1 = V_2/T_2$), what is its volume at 200 °F (366 K), before any steam forms? What other process makes the bubble grow even more in the oven?

Make it a game · Acid or Base?. A caller names kitchen ingredients one at a time: buttermilk, baking soda, lemon juice, molasses, egg white, vinegar, yogurt, natural cocoa, honey, plain water. Players raise one hand for acid, two hands for base, or fold their arms for “neither (close to neutral).” After each round, test the doubtful ones with a pinch of

baking soda: fizzing means acid. Three right in a row earns a “kitchen chemist” mark in the notebook.

Scripture. “Another parable spake he unto them; The kingdom of heaven is like unto leaven, which a woman took, and hid in three measures of meal, till the whole was leavened.” (Matthew 13:33, KJV)

Three measures of meal is a great deal of flour, perhaps enough bread for a hundred people. A small, hidden amount of leaven worked silently until the whole batch rose. Jesus taught that God’s kingdom grows the same way: quietly, from small beginnings, until it fills everything.

Practice: answers

1. Yeast (bread, rolls); chemical leavening, baking soda or powder (cookies, pancakes, quick breads); air beaten in (sponge cake, meringue, creamed cookies); steam (popovers, cream puffs, puff pastry).
2. Baking powder contains its own dry acid, which dissolves and reacts with the soda as soon as it is wet. Baking soda is a base alone; it needs an acid, here the vinegar, to make carbon dioxide.
3. Soda is about three to four times as strong, so about $\frac{1}{2}$ teaspoon ($2 \div 4$) to $\frac{2}{3}$ teaspoon ($2 \div 3$). A common guide is $\frac{1}{2}$ teaspoon soda per cup of buttermilk. It works because the buttermilk supplies the acid that the soda needs.
4. Any three: butter too soft or melted (use cool, softened butter and chill the dough); too little flour, perhaps from spooning lightly when the recipe assumed scooping (weigh the flour); too much sugar (measure exactly); oven too cool, so the edges did not set before spreading (check with an oven thermometer); greased sheet (use parchment).
5. Pearlash (potassium carbonate) is the leavening. Like soda, it needs an acid to release much gas; the likeliest source is the milk it is dissolved in, especially if the milk had begun to sour. With little acid, its rise is modest; it also makes the dough alkaline, which helps browning and tenderness. By weight: sugar 1 lb, flour $2\frac{1}{2}$ lb, butter $\frac{1}{4}$ lb, a ratio of 4 : 10 : 1. The modern cookie is about 2 : 3 : 2.3. Butter per unit of flour is 0.1 in Simmons’s cookie and about 0.75 in the modern one, roughly seven and a half times as much. Simmons’s cookie is lean, dry and firm, like a hard biscuit, which is why it kept “good three weeks.”
6. $V_2 = 0.10 \times 366 \div 293 \approx 0.125$ cubic millimeters, about 25% larger. In the oven the bubble also grows because the leavening keeps releasing carbon dioxide into it, and water evaporating into the bubble adds steam as the dough nears 212 °F.

1.7 A SIMPLE PIE CRUST

OBJECTIVES

- Make a pie crust by the 3-2-1 weight ratio and explain what makes pastry flaky and what makes it tender.
- Calculate dough size and layers: the circle needed for a pie pan, and how folding multiplies layers in puff paste.
- Read the 1796 puff-paste recipes of Amelia Simmons, compare their ratios with a modern crust, and handle an ambiguous old text honestly.

Warm-up. Take a cold pat of butter from the refrigerator and a soft one left out for an hour. Press each between two sheets of waxed paper with your palm. Which one flattens into a sheet, and which smears? Write a guess: which would make flakier pastry, and why?

Video slot. Video coming. How to make an all-butter pie crust by hand; rolling and crimping; blind baking with pie weights; lamination in puff pastry. Search approved channels (King Arthur Baking, America's Test Kitchen, a university extension channel); preview first.

KEY TERMS

pastry (paste)

A dough of flour, fat and a little water, rich in fat and low in water. Older cookbooks call it "paste," as Simmons does.

shortening

Any fat that makes pastry "short," meaning tender and crumbly, by coating flour and shortening the gluten strands. Also the name of solid vegetable fat (such as Crisco, sold from 1911).

flaky

Made of thin, separate layers. Flakes form when flattened pieces of cold fat melt in the oven and their water turns to steam, pushing the dough layers apart.

lamination

Folding and rolling a slab of butter inside dough again and again to build hundreds of alternating layers of dough and fat, as in puff pastry and croissants.

blind baking

Baking an empty pie shell, lined with parchment and weighed down with pie weights or dried beans, before adding a filling, so the bottom does not turn soggy.

coffin

The medieval and Tudor English word for a pastry case; a pie was baked in its own "coffin," which served as both pan and container.

CORE IDEAS

A pie is one of the cleverest inventions of the kitchen: a dish you can eat, holding a filling that would otherwise need a pot. In medieval England the pastry case was called a **coffin**, from an old word for a box or basket. Some coffins were thick, stiff walls of flour and water meant to hold and protect meat during long baking and were not always eaten; finer pastry, rich with butter or lard, was made for tarts. English settlers brought pies to America, where they became everyday food. Amelia Simmons's *American Cookery* (1796) gives several numbered "pastes" and pies of apple, mince and even "pompkin," baked in a crust, among the earliest pumpkin pies in American print.

A plain pie crust has four ingredients: flour, fat, water and salt. A useful rule is **3-2-1 by weight**: 3 parts flour, 2 parts fat, 1 part water. For a single 9-inch crust that is about 180 g flour, 120 g cold butter, 60 g ice water and ½ teaspoon salt. The proportions explain the result. Pastry has far more fat and far less water than bread, because the cook wants the opposite of bread: not a stretchy gluten net to trap gas, but tender, crisp layers.

Two different qualities make a good crust, and they pull against each other. **Tenderness** comes from fat coating the flour, which keeps the proteins from linking into gluten; that is why fats are called **shortening**. **Flakiness** comes from pieces of cold fat left the size of peas or flattened into thin sheets. In the oven the fat melts, its water (butter is about 16 percent water) turns to steam and pushes the dough layers apart, and the layers set into flakes. If the fat is too soft or is rubbed in too finely, you get a tender but mealy crust; if you add too much water and knead, gluten forms and the crust turns tough and shrinks.

So the rules of pastry are rules about temperature and restraint. Keep everything **cold**: butter begins to soften in the upper 80s °F and melts at about 90–95 °F, near the warmth of your hands, which is why many cooks use a pastry cutter or two knives. Add ice water a spoonful at a time, only until the dough holds together when squeezed. Then **rest** it, wrapped, in the refrigerator for at least an hour. Resting lets the water spread evenly, relaxes what gluten has formed so the crust will not shrink, and firms the fat again. Lard, with its large crystals, makes especially flaky pastry; vegetable shortening is easy to handle because it stays solid at room temperature; butter gives the best flavor. Many cooks mix them.

Rolling is geometry. To line a 9-inch pie pan about 1¼ inches deep, the dough circle must cover the bottom plus two sides plus a little overhang: $9 + 2(1\frac{1}{4}) + 2(\frac{1}{2}) = 12\frac{1}{2}$ inches, so most recipes say "roll to a 12-inch circle" about ⅛ inch thick. Roll from the center outward, turning the dough a quarter turn often and dusting lightly with flour so it does not stick. Ease it into the pan without stretching; stretched dough shrinks back in the heat. For custard or cream pies, **blind bake** the shell at about 425 °F with parchment and weights for 15–20 minutes, remove the weights, and bake until dry and golden, so the bottom stays crisp.

Puff pastry carries the idea of layers to its limit by **lamination**. A slab of butter is wrapped in dough, rolled long, folded in thirds like a letter, turned and rolled again. Each three-fold

triples the number of butter layers: after one fold 3, after two 9, after six $3^6 = 729$. In the oven the steam from all those thin layers lifts the dough many times its height with no yeast or baking powder at all. Simmons's first puff paste (see the primary source) rolls butter in "six or seven times," exactly this method, written for cooks who already knew what she meant.

Here is the honest complexity: old recipes assume skill and leave things out, and modern readers must interpret them carefully. Simmons gives no oven temperature (ovens had no dials), no rolling thickness and no resting time, and one phrase in her recipe can be read two ways. A careful reader does not pretend to certainty; she tests the likeliest reading and says what she assumed. Pastry rewards the same humility. Most cooks' first crusts crack, shrink or toughen. The answer is not a different recipe but patient practice, done "heartily, as to the Lord."

PICTURE STUDY



Still Life with a Turkey Pie, Pieter Claesz, 1627 · Oil on panel · Rijksmuseum, Amsterdam
Wikimedia Commons · CC BY-SA 4.0

Pieter Claesz of Haarlem was a master of the Dutch "breakfast piece" or banquet still life, painting a laid table so exactly that you can see reflections in the silver. Here the centerpiece is a grand pie with a turkey, its own feathers arranged on top, to show what was baked inside. Turkeys came to Europe from the Americas in the 1500s, so in 1627 this was still a showy, fashionable dish. The pie's tall, decorated crust is a coffin of the kind that held and displayed a rich filling.

Look closely

- Look at the pie's crust. How tall is it compared with the plates? How has the baker decorated it?

- Find the half-peeled lemon. How does Claesz show the peel curling and the juice shining?
- Find three things on the table that came from far away by ship (look for Chinese porcelain, a nautilus shell from the Pacific and pepper from India). Then look closely into the wine jug: can you find the painter's own reflection at his easel?

Talk about it

1. Why would a wealthy Dutch family want a painting of a feast like this? What might they want guests to think?
2. A Dutch viewer might also see a reminder that rich food and fine things pass away. How does the half-eaten, slightly untidy table suggest that?

Safety first. Ovens at 425 °F and hot pie weights or beans hold heat a long time; lift the parchment out by its corners with mitts and set the weights aside to cool before handling. Raw pastry contains raw flour; do not eat it. Use the knife or pastry wheel away from your fingers.

HANDS-ON: THE 3-2-1 CRUST: A TENDER-OR-TOUGH TEST AND A FINISHED PIE

Make an all-butter crust by weight, test the rules of pastry with a deliberate “wrong” batch, and finish a real pie for your family. The best crust becomes page 7 of your recipe book.

You will need

- Kitchen scale, two bowls, a pastry cutter or two table knives, a rolling pin, a ruler
- For two single crusts: 360 g all-purpose flour, 240 g very cold unsalted butter in ½-inch cubes, about 120 g ice water, 1 teaspoon salt
- A 9-inch pie pan, parchment, pie weights or 2 cups dried beans
- A simple filling (apple or berry for a fruit pie, or eggs and milk for a quiche)

Steps

1. Divide the ingredients in half for two batches. **Batch 1 (by the rules):** whisk 180 g flour with ½ teaspoon salt, cut in 120 g cold butter until the pieces are the size of peas and some flat flakes. Sprinkle in ice water a tablespoon at a time, tossing with a fork, just until the dough holds when squeezed. Weigh how much water you used.
2. **Batch 2 (broken rules):** use butter left out for an hour, rub it in with your fingers until fine as sand, add all the remaining water at once and knead for 2 minutes.
3. Shape each into a disk, wrap and chill at least 1 hour.
4. Roll each to a 12-inch circle ⅛ inch thick. Note how each behaves: cracking, sticking, springing back.
5. Cut a 3-inch strip from each and bake both strips side by side on a sheet at 425 °F for 12–15 minutes. Break them and compare flakiness, tenderness and shrinkage. Measure how much each strip shrank in length.

6. Line the pie pan with the Batch 1 crust and crimp the edge. Blind bake if your filling needs it, or fill and bake a fruit pie (about 400–425 °F for 45–60 minutes, until the juices bubble thickly through the vents).
7. Write what you did differently from a modern cookbook if you also tried a scaled-down version of Simmons’s puff paste (see practice question 6).

Check your work

- My dough was weighed in a 3-2-1 ratio and I recorded the water I actually used.
- My test strips show the difference between rule-keeping and rule-breaking, with shrinkage measured.
- I rolled a 12-inch circle about $\frac{1}{8}$ inch thick and lined the pan without stretching.
- I finished and served a pie.

FIELD NOTEBOOK

1. **Recipe book, page 7: Pie crust.** Write the 3-2-1 crust in grams and in cups (180 g flour $\approx 1\frac{1}{2}$ cups; 120 g butter ≈ 1 stick plus 1 tablespoon; 60 g water $\approx \frac{1}{4}$ cup).
2. Draw a magnified cross-section of flaky pastry: layers of dough separated by flattened fat, with arrows showing steam lifting them.
3. **Narration.** Write one paragraph explaining to a beginner why pie crust must be kept cold and handled little, using the words gluten, fat and steam. A parent keeps this paragraph.

Did you know? The English nursery rhyme “Sing a Song of Sixpence,” with its “four and twenty blackbirds baked in a pie,” may echo a real banquet trick. A sixteenth-century Italian cookbook describes a pie with live birds set inside the baked crust after baking, so that they flew out when it was cut. Whether English cooks actually did it is less certain.

Primary source. *Amelia Simmons, American Cookery (Hartford, 1796), “Puff Pastes for Tarts,” Nos. 1 and 2. Project Gutenberg eBook #12815. Spelling as in the original: “flowring” means flouring.*

No. 1. Rub one pound of butter into one pound of flour, whip 2 whites and add with cold water and one yolk; make into paste, roll in in six or seven times one pound of butter, flowring it each roll. This is good for any small thing.

No. 2. Rub six pound of butter into fourteen pound of flour, eight eggs, add cold water, make a stiff paste.

Go deeper.

- Rose Levy Beranbaum, *The Pie and Pastry Bible* (1998): the science and technique of every kind of crust.

- Janet Clarkson, *Pie: A Global History* (2009): a short history from medieval coffins to modern pies.
- Michigan State University Libraries, *Feeding America*: compare Simmons's pastes with those in later American cookbooks.
- Second video topic: "How puff pastry is laminated" (preview first).

Goes deeper in. Arithmetic, "Ratios and Proportion" and "Exponents," and History, "Colonial America: Daily Life" (coming soon).

For families. Sources: Michael Ruhlman, *Ratio* (2009), for 3-2-1 pie dough; Harold McGee, *On Food and Cooking*, and King Arthur Baking for fat, gluten and flakiness; Janet Clarkson, *Pie*, for medieval coffins. The live-bird pie is described in Italian Renaissance sources (often cited from *Epulario*, 1549); its use in England is uncertain, so the stop says so. Simmons's "pompkin" recipes are titled puddings but are baked in paste, so the stop calls them among the earliest American printed pumpkin pies. The phrase "roll in in six or seven times one pound of butter" is ambiguous; practice 6 discusses the readings. The lamination figure (729 butter layers after six three-folds) counts butter layers only and ignores layers that merge. The excerpt is copied from the Project Gutenberg text. Picture: Pieter Claesz, *Still Life with a Turkey Pie*, 1627, Rijksmuseum (SK-A-4646); the objects named follow the museum's description.

PRACTICE

1. **EASY** Using the 3-2-1 rule, how much fat and water go with 240 g of flour?
2. **EASY** Explain the difference between a tender crust and a flaky crust and what causes each.
3. **MEDIUM** Your pie crust shrank down the sides of the pan and was tough. Give two causes and how to prevent them next time.
4. **MEDIUM** You want to line a deep-dish 10-inch pan that is 2 inches deep, with ½-inch overhang. What diameter circle must you roll? If the dough is ⅛ inch thick, about how many cubic inches of dough is that? (Use $\pi \approx 3.14$.)
5. **CHALLENGE** Compare the fat-to-flour ratio by weight of Simmons's No. 2 paste, Simmons's No. 1 paste (taking the likelier reading of one extra pound rolled in) and the modern 3-2-1 crust. Which should be the richest and flakiest, and why does No. 2 make sense for its purpose?
6. **CHALLENGE** Simmons writes "roll in in six or seven times one pound of butter." Give two possible readings, decide which is likelier with reasons, and work out how many butter layers six letter-folds would produce.

Make it a game · Tender or Tough? A caller describes a pastry mistake or good habit ("butter left on the counter," "ice water a spoonful at a time," "kneaded for five minutes," "rested overnight," "stretched into the pan," "lard in pea-size pieces"). Players fold their hands gently for "tender and flaky" or make fists for "tough." Then one player must explain the reason in one sentence. A correct reason earns a point; first to five wins.

Scripture. “And whatsoever ye do, do it heartily, as to the Lord, and not unto men;”
(Colossians 3:23, KJV)

Paul wrote this to people doing ordinary work, much of it hard and unnoticed. A pie crust takes patience and many tries. Doing it heartily, as service to the Lord rather than for praise, turns a cracked first crust into faithful practice and a finished pie into a gift.

Practice: answers

1. Fat = $240 \times 2/3 = 160$ g; water = $240 \times 1/3 = 80$ g.
2. Tender means it breaks easily and is not chewy; it comes from fat coating the flour and limiting gluten. Flaky means it separates into thin layers; it comes from flattened pieces of cold fat whose water turns to steam in the oven and pushes the dough layers apart.
3. Too much water and handling developed gluten, which tightens in the heat (use only enough ice water and mix lightly); the dough was not rested long enough to relax (chill at least an hour); or it was stretched to fit the pan (roll it large enough and ease it in).
4. Diameter = $10 + 2(2) + 2(1/2) = 15$ inches. Area = $3.14 \times 7.5^2 \approx 176.6$ square inches. Volume $\approx 176.6 \times 1/8 \approx 22$ cubic inches.
5. No. 2: $6 \text{ lb butter} \div 14 \text{ lb flour} \approx 0.43$. No. 1: $1 \text{ lb rubbed in} + 1 \text{ lb rolled in} = 2 \text{ lb butter} \div 1 \text{ lb flour} = 2.0$. Modern 3-2-1: $2 \div 3 \approx 0.67$. No. 1 is by far the richest and, being rolled in layers, the flakiest: a true puff paste “good for any small thing” like tarts. No. 2 is a lean, stiff paste made in huge quantity (20 pounds of flour and butter), suited to sturdy crusts for many large pies, where strength and economy matter more than delicacy.
6. Reading A: roll one pound of butter into the paste in six or seven separate rollings (adding butter a little at a time, flouring each roll). Reading B: roll in six or seven pounds of butter. Reading A is far likelier: seven pounds of butter to one pound of flour could not hold together as a dough, and the method of adding butter over several rolls matches how puff paste was made. (The doubled “in in” is probably a printer’s slip or means “roll in, in six or seven times.”) Each three-fold triples the layers: $3^6 = 729$ butter layers after six folds ($3^7 = 2,187$ after seven), though in practice some layers merge.

1.8 COOK A WHOLE FAMILY SUPPER

OBJECTIVES

- Plan a balanced supper menu within a budget, and cost it per serving.
- Write and follow a reverse schedule with a critical path, using mise en place, so every dish is ready at once.
- Cook, serve and clear a full family supper safely, drawing on every earlier stop of this trail.

Warm-up. Ask the person who usually cooks supper in your house how they decide what to make and when to start. Write down their answer in their own words. Then list everything you think happens between “What’s for supper?” and the last dish being dried and put away. Number the steps.

Video slot. Video coming. How to roast a whole chicken and check it with a thermometer; mise en place for home cooks; planning a weekly menu on a budget. Search approved channels (America’s Test Kitchen, USDA Food Safety and Inspection Service, a university extension nutrition channel); preview first.

KEY TERMS

menu

The planned list of dishes for a meal, chosen to go together in flavor, color, texture, nourishment and cost.

mise en place

French for “put in place” (say “meez-ahn-PLAHS”): having every ingredient measured, chopped and ready, and every tool at hand, before cooking starts.

critical path

The longest chain of steps that must happen one after another. It sets the earliest time a meal can be ready, so it decides when you must start.

carryover cooking

The rise in a roast’s internal temperature after it leaves the oven, often 5-10 °F, as heat from the hot outside moves inward. Resting meat uses it.

cost per serving

The total cost of the ingredients actually used, divided by the number of servings.

clean as you go

Washing tools and wiping surfaces during cooking, while things simmer or roast, so the kitchen is nearly clean when supper is served.

CORE IDEAS

Every stop on this trail has prepared you for this one. A whole supper uses clean hands and a thermometer (A1), accurate measuring and scaling (A2), bread (A3), timing several dishes at once (A4), stock and thrift (A5), baking science (A6) and pastry (A7). The new skill is **putting it all together**: deciding what to cook, buying it within a budget, and bringing five or six dishes to the table hot, at the same moment, for people you love. That is the work that a cook in every household does day after day, and it is harder than any single recipe.

Planning starts with the **menu**. A sound family supper usually has a protein (meat, fish, eggs or beans), a starch (bread, potatoes, rice or pasta), at least one vegetable, and something fresh or sweet to finish. Good cooks also balance *contrasts*: something soft and something crisp, something rich and something sharp (a green salad with vinegar beside a roast), and a range of colors on the plate. They think about the season, what is already in the pantry, anyone's allergies, and how much oven and stove space each dish needs. A menu that needs three dishes in a 425 °F oven and one at 325 °F at the same time cannot work in one oven.

Then comes cost. List each ingredient, its price and how much you will use, and total it. For example, with sample prices: a 4½-pound whole chicken at \$1.90 a pound costs about \$8.55; 3 pounds of potatoes, \$3.00; 1 pound of carrots, \$1.20; a head of lettuce and dressing ingredients, \$2.50; a loaf of homemade bread, about \$1.00 in flour, yeast and salt; an apple crisp, about \$4.00. The total is \$20.25 for six servings, or about \$3.38 per serving, and the chicken carcass becomes tomorrow's stock. Prices vary by place and season, so use your own store's prices; the method is what matters.

The heart of a smooth supper is the **reverse schedule**. Write the serving time at the bottom and work upward, giving each dish its prep time, cooking time and any resting time. Find the **critical path**, the longest chain. For a roast chicken it is: preheat (15 minutes), roast (about 1 hour 15 minutes at 425 °F for a 4½-pound bird, until the thickest part of the thigh reads 165 °F), rest (15 minutes, during which **carryover cooking** continues). That chain alone takes 1 hour 45 minutes, so for a 6:00 supper the oven goes on by 4:15. Everything else fits around it: potatoes roast in the same oven for the last 45 minutes; the salad is washed early and dressed at the last minute; the crisp bakes while the chicken rests, or goes in when the chicken comes out.

Professional kitchens learned these lessons on a large scale. The French chef Auguste Escoffier, at the Savoy and Carlton hotels in London around 1900, organized his cooks into a "brigade" of stations, each responsible for one part of the meal, and taught that a cook's station must be set up before service begins: **mise en place**. At home it means reading every recipe through, then measuring, chopping and laying everything out before the first pan is heated. It also means **cleaning as you go**: a sink of hot, soapy water filled before you start, so that bowls and boards are washed during the long minutes when the chicken roasts.

Here is the honest complexity. Schedules slip. Ovens run cool; a bird takes 20 minutes longer than planned; someone is late. Good cooks build in slack (10 to 15 minutes), keep finished dishes warm safely (above 140 °F) or let them wait at room temperature for less than 2

hours, and trust the thermometer rather than the clock. They also share the work. Lydia Maria Child wrote in 1832 that every member of a family should be employed (see the primary source), and a supper goes best when the cook gives others real jobs: setting the table, filling glasses, carving bread, clearing and washing. Hospitality includes letting others serve too.

Finally, a supper is more than food. For most of history the shared evening meal has been where a family gives thanks, tells the day's news, teaches manners and keeps its stories. The early church in Jerusalem met in homes, "breaking bread from house to house," and ate "with gladness and singleness of heart." The point of all the planning is not a perfect meal but a glad table. When the plates are cleared and the kitchen is clean, thank the people who helped, and ask what they would like you to cook next time.

PICTURE STUDY



The Potato Eaters, Vincent van Gogh, 1885 · Oil on canvas · Van Gogh Museum, Amsterdam
Wikimedia Commons · Public domain

Van Gogh painted *The Potato Eaters* in the spring of 1885 in the Dutch village of Nuenen, where his father was the pastor. He made many studies of the de Groot family and their neighbors, poor farm laborers, and wanted to show people who ate the potatoes they had dug from the ground with the same hands now reaching into the dish. He used dark, earthy colors on purpose, and he considered it one of his most important works. Critics and friends of the time thought it clumsy; it is now one of his best-known paintings. It is a supper with almost nothing on the table, yet the family is together and the food is shared.

Look closely

- Find the lamp. What does it light, and what stays in shadow?
- Count the people and find what each one is doing. Who is serving whom?

- Look at the hands. How did Van Gogh paint them, and why?

Talk about it

1. This supper is one dish of potatoes and a pot of coffee or tea. What makes it a family meal even so?
2. Compare this table with the grand still life of the turkey pie in Stop A7. What does each picture say about food, work and thankfulness?

Safety first. A full supper means hot oven, stove and knives all at once; a parent should be home and available throughout. Use a thermometer on the chicken (165 °F in the thickest part of the thigh, not touching bone). Keep raw-chicken boards, knives and hands separate from salad and bread. Refrigerate leftovers within 2 hours.

HANDS-ON: PLAN, COST, COOK AND SERVE A FAMILY SUPPER

This is the capstone of Trail A. You will plan a menu, cost it, write a reverse schedule, cook the whole supper with mise en place, serve it, and clear and clean the kitchen. Use at least two skills from earlier stops (for example, homemade bread, a soup or a pie). The plan and a photo of the table become the final pages of your recipe book.

You will need

- Recipe cards or cookbooks, a calculator, a grocery list
- An instant-read thermometer, timer, sheet pans and pots
- Ingredients for your menu (a sample menu: roast chicken, roasted potatoes and carrots, green salad, homemade bread, apple crisp)
- A sink of hot, soapy water before you start

Steps

1. **Menu.** Choose a protein, a starch, a vegetable and a dessert or fruit. Check balance: color, texture, richness, and oven and stove space. Ask a parent to approve it and note anyone's allergies.
2. **Cost sheet.** List every ingredient with its price and the amount used. Find the total and the cost per serving. If it is over the budget a parent sets, change a dish and recalculate.
3. **Reverse schedule.** Write serving time at the bottom. For each dish write prep, cook and rest times and work upward. Mark the critical path in red and add 15 minutes of slack.
4. **Mise en place.** One hour before the first item goes in the oven, read every recipe, measure and chop everything, and set out tools. Fill the sink.
5. **Cook.** Follow your schedule. Write the actual time beside each planned time. Check meat with the thermometer, and rest it before carving.
6. **Serve.** Give family members jobs (table, drinks, bread). Say grace and serve the food hot. Ask each person for one thing they liked and one thing to change.

7. **Clear and clean.** Store leftovers within 2 hours, save the carcass for stock, wash and put away everything. Then compare planned and actual times and write what you would change.

Check your work

- My menu is balanced and my parent approved it.
- My cost sheet shows a total and cost per serving within budget.
- My reverse schedule marks the critical path, and I recorded actual times.
- All hot food reached the table within 15 minutes of my serving time, and the meat reached a safe temperature.
- The kitchen was clean and leftovers were stored within 2 hours.

FIELD NOTEBOOK

1. **Recipe book, final pages: My family supper.** Paste in the menu, the cost sheet and the reverse schedule with planned and actual times. Add a photo or drawing of the table.
2. Write the family's comments and your own list of three changes for next time.
3. **Narration.** Write one paragraph telling the story of your supper from planning to clean-up: what went to plan, what slipped and how you recovered, and what the meal meant to your family. A parent keeps this paragraph.

Did you know? Before refrigerators, the main meal in most American farm homes was “dinner” at midday, and “supper” was a lighter evening meal, often of bread, milk, leftovers or soup. The shift to a large evening dinner came with town jobs that kept workers away at midday. That is why some families still say “dinner” and others “supper” for the same meal.

Primary source. *Lydia Maria Child, The American Frugal Housewife (1832 edition), Introductory Chapter. Project Gutenberg eBook #13493. The italics are hers.*

The true economy of housekeeping is simply the art of gathering up all the fragments, so that nothing be lost. I mean fragments of *time*, as well as *materials*. Nothing should be thrown away so long as it is possible to make any use of it, however trifling that use may be; and whatever be the size of a family, every member should be employed either in earning or saving money.

Go deeper.

- Lydia Maria Child, *The American Frugal Housewife*, at Project Gutenberg: read the whole Introductory Chapter and compare her advice with how your family plans meals.
- Fannie Merritt Farmer, *The Boston Cooking-School Cook Book*, at Project Gutenberg: look for her suggested menus (“bills of fare”) and compare them with yours.

- Van Gogh Museum (vangoghmuseum.nl), pages on *The Potato Eaters* and the letters Van Gogh wrote about it to his brother Theo.
- Second video topic: “How a restaurant kitchen brigade works” (preview first).

Goes deeper in. Small Business & Economics, “Seven Small Businesses: Costs, Prices and Planning,” and Arithmetic, “Money and Percent” (coming soon).

For families. Sources: USDA FSIS for poultry temperature (165 °F), holding temperatures and the 2-hour rule; roasting times are approximate (about 15–17 minutes per pound at 425 °F for a whole chicken), so the thermometer decides. Prices in the cost example are samples for practice, not current prices for your area. Escoffier’s brigade system is documented in standard histories of the Savoy and Carlton hotels; he did not invent the phrase *mise en place* but made the discipline famous. Van Gogh’s intentions are summarized from his letters to Theo (April 1885); we paraphrase because the English translations are under copyright. The Child excerpt is copied from the Project Gutenberg text; her line about every member being “employed” refers to household work as well as paid work. Please set the budget and be home throughout; this capstone is a real meal and may take an afternoon.

PRACTICE

1. **EASY** What does *mise en place* mean, and name two things it includes at home.
2. **EASY** Name the four parts of a balanced supper menu and give an example of each.
3. **MEDIUM** A supper for 6 costs: pork roast \$11.40, rice \$1.20, green beans \$2.80, rolls \$1.50, fruit \$3.60. What is the cost per serving? If the budget is \$3.00 per serving, how much must be cut?
4. **MEDIUM** Supper is at 6:30. A 5-pound chicken roasts about 16 minutes per pound at 425 °F after a 15-minute preheat, then rests 15 minutes. When must the oven be turned on?
5. **CHALLENGE** Read Child’s Introductory Chapter excerpt. Explain what she means by “fragments of time,” and give two specific ways a cook can gather up fragments of time and two ways to gather up fragments of materials when making a family supper.
6. **CHALLENGE** You have one oven. The chicken needs 425 °F for 75 minutes. The potatoes need 425 °F for 45 minutes. The apple crisp needs 375 °F for 40 minutes. The bread was baked in the morning. Supper is at 6:00 and the chicken rests 15 minutes. Write a workable oven schedule and explain how you handled the crisp.

Make it a game • Critical Path Puzzle. Write 8 to 10 supper tasks on index cards with times (“preheat oven, 15 min,” “roast chicken, 75 min,” “rest chicken, 15 min,” “wash lettuce, 10 min,” “set table, 10 min,” “boil water, 12 min,” “cook green beans, 8 min,” “carve, 10 min”). Players race to arrange the cards into a timeline on the floor ending at 6:00, with tasks that can overlap placed side by side. The first player whose schedule works, with the critical path correctly marked, wins and gets to choose the next family supper menu.

Scripture. “And they, continuing daily with one accord in the temple, and breaking bread from house to house, did eat their meat with gladness and singleness of heart,” (Acts 2:46, KJV)

In the King James Version, “meat” means food of any kind. The first Christians shared ordinary meals in their homes with gladness and sincerity. A family supper, planned with care and served with joy, is a small picture of that fellowship, and the next verse tells us they were “praising God.”

Practice: answers

1. “Put in place.” Reading the recipes through; measuring and chopping all ingredients; setting out tools, pans and serving dishes; filling a sink with hot soapy water.
2. Protein (roast chicken, beans, fish); starch (potatoes, bread, rice); vegetable (carrots, green salad, green beans); something fresh or sweet to finish (fruit, apple crisp, pie).
3. Total = \$20.50; per serving = $\$20.50 \div 6 \approx \3.42 . The budget is $6 \times \$3.00 = \18.00 , so cut \$2.50 (for example, homemade bread instead of rolls and a cheaper fruit, or a smaller roast).
4. Roast = $5 \times 16 = 80$ minutes. Preheat 15 + roast 80 + rest 15 = 110 minutes = 1 hour 50 minutes. $6:30 - 1:50 = 4:40$. Turn the oven on by 4:40, or earlier (about 4:25) to allow 15 minutes of slack.
5. She means the small pieces of time that are easily wasted, such as minutes spent waiting. Time: wash dishes and wipe counters while the chicken roasts (clean as you go); make the salad dressing or set the table during waiting minutes; mix tomorrow’s bread dough while the oven is hot. Materials: save the chicken carcass and vegetable trimmings for stock (Stop A5); turn stale bread into crumbs or pudding; plan leftovers into the next day’s lunch. Any reasonable examples that match her principle are correct.
6. One plan: 4:15 preheat to 425 °F. 4:30 chicken in. 5:00 potatoes in beside the chicken. 5:45 chicken out to rest; potatoes come out at 5:45 too and stay warm, covered (or keep roasting till 5:55 on a higher rack). 5:45 lower the oven to 375 °F (leave the door open briefly to cool it) and put the crisp in at about 5:50 to bake during supper, ready at about 6:30 for dessert. The crisp cannot share the oven at 425 °F and does not need to be ready at 6:00, so it goes in last. Other schedules are correct if the chicken rests 15 minutes before 6:00 and no two dishes need different temperatures at once.

TRAIL 1 BADGE QUIZ

The badge quizzes are optional. The student answers in writing, showing work for calculations; the parent checks with the answers given. Four right out of five earns the first badge; five right out of six earns the second. Badges and the certificate are earned by doing the stops, not by scores.

Badge quiz 1 (Stops 1-5)

1. What is the danger zone, and how long may perishable food stay in it? What is the safe internal temperature for chicken?
2. A recipe calls for $\frac{2}{3}$ cup of sugar. You are making half the recipe. How much sugar is that, in measures you can use?
3. According to Exodus 12:39, why did Israel bake unleavened cakes when they left Egypt? What did Jesus call Himself in John 6:35?
4. Give two reasons pancakes can come out flat and tough, and the fix for each.
5. Why is stock simmered rather than boiled hard, and what turns into gelatin as it cooks?

Badge quiz 2 (Stops 6-8)

6. Why does baking soda need an acid in the recipe, while baking powder does not? Name two kitchen acids.
7. Simmons's 1796 cookies call for "pearl ash." What was it, and what modern ingredient does the same job?
8. Using the 3-2-1 rule, how much butter and water go with 300 g of flour? Why must the butter be cold?
9. Puff pastry is folded in thirds six times. How many butter layers does that make?
10. Supper is at 6:00. The critical path is preheat 15 minutes, roast 80 minutes, rest 15 minutes. When must the oven go on? What does Lydia Maria Child mean by gathering up "fragments of time"?
11. A supper for 5 costs \$17.25. What is the cost per serving?

TRAIL CERTIFICATE: MY FAMILY RECIPE BOOK AND TRAIL A CERTIFICATE

Gather the eight recipe-book pages from this trail into one booklet or binder section titled "Our Family Recipe Book," with your name and dates: kitchen rules, the measuring chart and scaled recipe, bread, pancakes and breakfast schedule, stock and soup, cookies with your experiment, pie crust, and the family supper plan.

Add a title page and a short introduction explaining what you learned and which recipe your family liked best. Include at least one primary source you read (Simmons, Child, Farmer or Exodus 12) with your own modern translation of it.

Keep the eight narration paragraphs in the back. When the book is complete and the supper has been served, a parent signs the Trail A certificate.

- **Accuracy:** Recipes give correct, measurable amounts (by volume and by weight where useful); scaling and cost calculations are worked correctly; temperatures match the USDA chart.
- **Understanding:** Each page explains why the method works (gluten, leavening, steam, gelatin, temperature) in the student's own words, and the narrations are clear and complete.
- **Use of sources:** Primary sources are quoted exactly and named, interpreted fairly, and compared with modern practice without mocking the past.
- **Service and safety:** The student cooked safely, cleaned as they went, finished the family supper on schedule within the budget, and served it gladly.

Answer key

1. 40 °F to 140 °F; no more than 2 hours (1 hour above 90 °F). Chicken is safe at 165 °F.
2. $\frac{1}{3}$ cup (or 5 tablespoons plus 1 teaspoon).
3. They were thrust out of Egypt and could not tarry, so the dough had no time to rise. "I am the bread of life."
4. Any two: overmixing developed gluten (stir only until the flour disappears); the griddle was too cool (heat until water drops dance, about 375 °F); old or too little leavening (use fresh baking powder); batter rested too long so the gas escaped (rest only 5–10 minutes).
5. A hard boil makes the stock cloudy and greasy and toughens the meat; a simmer allows skimming and slow extraction. Collagen from bones and connective tissue turns into gelatin.
6. Baking soda is a base and makes carbon dioxide only when it reacts with an acid; baking powder already contains a dry acid. Acids: buttermilk, yogurt, vinegar, lemon juice, brown sugar or molasses, natural cocoa, honey.
7. Pearlash was potassium carbonate refined from wood ashes, an early chemical leavening; baking soda (and baking powder) does the same job today.
8. 200 g butter and 100 g water. Cold butter stays in solid pieces that flatten into layers; in the oven its water turns to steam and separates the layers, making the crust flaky. Soft butter blends in and gives a mealy or greasy crust.
9. $3^6 = 729$.
10. 110 minutes before 6:00, so by 4:10 (earlier with slack). She means using small pieces of time that would otherwise be wasted, such as washing up while the roast cooks.
11. $\$17.25 \div 5 = \3.45 per serving.

HOSPITALITY AND HOME TRAIL B: THE TABLE

The second trail of the Hospitality and Home track is about the table itself: how to set it and why forks go left and knives right; how formal settings grew out of the change from French to Russian service in the 1800s; the history and geometry of napkin folding; centerpieces from the garden; saying grace, from Deuteronomy and Acts 27 to Luther and Chardin; table manners and the art of conversation; serving and clearing a course; and the history of afternoon tea, from Pepys and Catherine of Braganza to the Boston Tea Party and the Duchess of Bedford.

This is the ● **Expert** level, for students of about 14 and up. Each stop takes 35–50 minutes and stands by itself. Students read primary sources copied from Project Gutenberg and the King James Bible (an 1894 servants' manual, a 1921 etiquette book, Acts 27, and Henry James), work with dates and numbers, write a narration paragraph that the parent keeps, and finish practice sets that include challenge questions. Every stop ends with a hands-on project at a real table: a measured place setting, a five-course formal setting, three napkin folds, a garden centerpiece, a family book of graces, a conversation plan, a served three-course meal, and an afternoon tea.

Five stops earn the **Table Expert badge, part 1**; all eight stops earn part 2 and the **Trail B certificate**. The trail portfolio is a photographed and labeled set table with a short written defense of every placement.

BEFORE YOU BEGIN

- Read a page of nineteenth-century prose and summarize it in your own words.
- Multiply and divide with decimals and work with simple ratios and percentages.

MASTERY CHECKLIST

- ☐ I can set basic, informal and formal places and explain every placement by handedness, order of use and safety.
- ☐ I can explain how service à la russe changed the dinner table in the 1800s, and give the history of the fork and the napkin with dates.
- ☐ I can build a low garden centerpiece and condition cut flowers, explaining the science.
- ☐ I can give the biblical basis for saying grace, lead grace at a meal, and lead a conversation that includes everyone.
- ☐ I can serve and clear a course by Springsteed's rules and host an afternoon tea, telling its history from 1658 to the 1840s.

GO DEEPER: BOOKS, MUSEUM PAGES AND RESOURCES

- **Anne Frances Springsteed, *The Expert Waitress* (1894), Project Gutenberg #49202** (<https://www.gutenberg.org/ebooks/49202>): The primary source for Stops B1,

B2, B4 and B7: a complete American manual for setting, serving and clearing, free online.

- **Lillian Eichler, *Book of Etiquette, Volume II* (1921), Project Gutenberg #7029** (<https://www.gutenberg.org/ebooks/7029>): Primary source for Stops B3 and B6, with chapters on dinners, luncheons and teas.
- **Emily Post, *Etiquette* (1922), Project Gutenberg #14314** (<https://www.gutenberg.org/ebooks/14314>): The classic American etiquette book, with detailed chapters on formal and informal dinners and afternoon teas. Useful for comparison at every stop.
- ***George Washington's Rules of Civility*, ed. Moncure D. Conway, Project Gutenberg #12029** (<https://www.gutenberg.org/ebooks/12029>): Washington's 110 rules with their French sources, for Stop B6.
- **Rijksmuseum, Floris van Dijck, *Still Life with Cheese* (SK-A-4821)** (<https://www.rijksmuseum.nl/en/collection/SK-A-4821>): Zoom into a laid table of 1615 with pressed damask linen (Stop B3).

2.1 SETTING A TABLE: FORKS LEFT, KNIVES AND SPOONS RIGHT

OBJECTIVES

- Set a correct everyday place setting and explain each placement by three principles: handedness, order of use, and safety.
- Trace the history of the table knife, spoon and fork from the Middle Ages to colonial America, separating documented facts from popular legends.
- Read an 1894 servants' manual as a primary source and test its rules against a modern place setting.

Warm-up. Before you read anything, set one place at your table from memory: plate, fork, knife, spoon, glass and napkin. Photograph or sketch it and put it aside. At the end of the stop you will grade your own setting against a rule book written in 1894.

Video slot. Video coming. How to set a basic and informal place setting; the history of the table fork from Byzantium to Italy and England. Search approved channels (a museum channel such as the Victoria and Albert Museum or the Metropolitan Museum of Art, Colonial Williamsburg, a 4-H or extension-service channel); preview first.

KEY TERMS

place setting

Everything laid at one diner's place: plate, flatware, glass and napkin. Older books call it a "cover," from the French *couvert*.

flatware

Knives, forks and spoons for the table. Americans often say "silverware" even when the pieces are stainless steel; the British say "cutlery."

tines

The prongs of a fork. Early table forks had two; most modern dinner forks have four.

outside-in rule

Flatware is laid in the order it will be used, so the diner starts with the pieces farthest from the plate and works inward course by course.

trencher

In the Middle Ages, a thick slice of stale bread used as a plate; later, a square or round wooden plate.

bread plate

A small plate set above the forks, at the upper left of the place, often with a butter knife laid across it.

CORE IDEAS

A place setting is a small map of the meal. Every object has a job, and its position is not a whim of fashion. Three principles explain nearly every rule. The first is **handedness**: about nine people in ten are right-handed, so the knife, which does the cutting work, lies on the right, together with the spoons that are lifted in the right hand; the fork, which holds food still while the knife cuts, lies on the left. The second is **order of use**: pieces are laid so that the diner works from the outside in, course by course. The third is **safety and courtesy**: the knife's edge is turned toward the plate, never toward the neighbor's hand. An American manual for household servants, Anne Frances Springstead's *The Expert Waitress* (1894), set down all three principles in four short rules, printed in the Primary source box.

The everyday setting follows from those principles. The dinner plate sits in the center of the place, about an inch from the table's edge. The fork lies to its left. The knife lies to its right, blade facing in, and the spoon lies to the right of the knife. The water glass stands just above the tip of the knife. The napkin goes to the left of the fork or on the plate. If there is a bread plate, it sits above the fork, at the upper left. A useful memory trick: touch the tips of your thumbs and forefingers together with the other fingers pointing up. Your left hand makes a small *b* and your right hand a small *d*: bread on the left, drink on the right. The bottom ends of the flatware line up evenly, about an inch from the edge.

For most of European history there was no "setting" to set. In a medieval hall, diners commonly carried their own knife on the belt and used it both to cut and to spear food. Much was eaten with the fingers and with spoons, from shared dishes, off **trenchers** of bread. The host supplied cups, a common salt and the cloth. As households grew richer from the 1500s onward, hosts began to provide matched knives and spoons for their guests. A famous story says that in the 1630s Cardinal Richelieu of France had the points of his table knives ground round because a guest picked his teeth with one, and that Louis XIV later restricted pointed knives. The evidence for the details is thin. What is certain is that table knives did become round-ended during the 1600s and 1700s, chiefly because the fork had taken over the job of spearing food.

The fork came late and met resistance. Small forks were used at table in the Byzantine Empire, and a churchman's account from the eleventh century tells of a Byzantine bride in Venice who scandalized the city by eating with a little golden fork; that story has grown in the retelling and is partly legend. By the 1500s many Italians used forks routinely. The English traveler Thomas Coryat walked through France and Italy in 1608 and, in his book *Coryat's Crudities* (1611), described the Italian custom of eating meat with a fork. When he copied it at home, a friend nicknamed him *Furcifer*, a Latin pun meaning both "fork-bearer" and "rascal." Forks spread slowly in England and slowly again in the American colonies: Governor John Winthrop of Massachusetts is often said to have owned one of the first forks in English America in the 1630s, but most colonial families ate with knife and spoon until well into the 1700s.

The spoon is the oldest of the three. Shells, horn and carved wood served long before metal. In England from the 1400s to the 1600s, a set of "apostle spoons," each handle topped with a

small figure of one of the apostles, was a favorite christening gift, which is a reminder that spoons were once personal treasures rather than drawer stock. When a guest arrived with his own knife and spoon, the host had little to set. When the host supplied everything, he needed a system, and the system we use was largely settled in the 1700s and 1800s.

The exceptions prove the logic. The small oyster fork is the one fork laid on the right, beyond the spoons, because it is used first and in the right hand. Dessert spoons and forks often lie above the plate, crosswise, because they belong to the end of the meal and do not fit the outside-in line. Many etiquette writers advise laying no more than three forks at once, bringing others with later courses. A left-handed diner may quietly switch pieces at his own place, but the setter lays the standard setting so that every guest knows where to reach.

Why care about an inch here and a blade there? Because a set table serves people before they arrive. The guest never has to ask where things are, never has to reach across a neighbor, and never meets an edge turned toward his hand. Scripture pictures God Himself as a host: "Thou preparest a table before me," David wrote (Psalm 23:5). Order at the table is one small way of doing all things "decently and in order" for the sake of others.

PICTURE STUDY



Still Life with Cheeses, Almonds and Pretzels, Clara Peeters, c. 1615 · Oil on panel · Mauritshuis, The Hague, Netherlands

Wikimedia Commons · Public domain

Clara Peeters worked in Antwerp in the early 1600s and was one of very few women painting still lifes at that time. In several of her paintings she placed a silver knife at the front of the table and engraved her own name on its handle, as a kind of signature. Look closely: there is a knife, but there is no fork. In Flanders in 1615, that was normal.

Look closely

- Find the knife. Which way does its blade point, and how far does it reach over the table's edge? Why might the painter want it to reach toward you?
- Look for any fork or spoon. What would a diner use instead to eat these foods?
- Notice the plates. Which are pewter, and which are earthenware? What does that suggest about the household?

Talk about it

1. How does this table show the world described in the core ideas, where diners carried or were handed a knife but rarely a fork?
2. Peeters signed the knife rather than the corner of the picture. What does that suggest about how valued a fine knife was in her day?

Safety first. Carry table knives point down at your side with the blade turned back. Never drop knives into a sink of soapy water where someone could reach in blindly; wash them separately. When setting the table, lay knives with the blade toward the plate.

HANDS-ON: SET, MEASURE AND AUDIT A PLACE SETTING

You will set one everyday place setting to measured standards, photograph and label it, and then audit it against Springsteed's 1894 rules in the Primary source box. You will finish by writing your own six-rule card that a younger sibling could follow.

You will need

- A dinner plate, fork, dinner knife, spoon, water glass and cloth or paper napkin
- A bread plate and butter knife (optional)
- A ruler or tape measure
- A phone or camera, or paper for a careful sketch
- Sticky notes or small paper labels and a pen
- Your warm-up photo or sketch

Steps

1. Center the plate on the place, with its rim 1 inch from the table edge. Measure it.
2. Lay the fork on the left and the knife on the right, blade facing in, with the bottom ends of both 1 inch from the edge. Lay the spoon to the right of the knife.
3. Set the glass just above the tip of the knife. Lay the napkin to the left of the fork (or on the plate). If you have a bread plate, set it at the upper left with the butter knife across it.
4. Label each piece with a sticky note naming it and giving the principle that decides its place (handedness, order of use, or safety).
5. Photograph or sketch the labeled setting from directly above.
6. Read Springsteed's four rules aloud. For each rule, write "kept" or "broken" for your warm-up setting and for your new setting.

7. Write a six-rule card in your own words, each rule followed by “because ...,” for a child of eight to use.

Check your work

- My setting is measured: plate and flatware 1 inch from the edge.
- Every label names a reason, not just a position.
- I graded my warm-up setting honestly against all four 1894 rules.
- My six-rule card gives a reason for each rule.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, explain why forks lie on the left and knives and spoons on the right. Use at least two of the three principles and at least two historical facts from this stop (for example, Coryat’s *Crudities* of 1611, or the round-ended knife). A parent dates and keeps the page.
2. Draw a timeline from 1400 to 1900 with five events in the history of flatware, including at least one marked “legend” or “uncertain.”
3. Draw your labeled place setting from above, to scale (one inch on paper for every two inches on the table).

Did you know? Stainless steel was developed in Sheffield, England, around 1913, and Sheffield, already famous for cutlery, soon used it for table knives. Before that, steel knives had to be dried and polished carefully or they would rust and stain. That is why many old households kept a knife-cleaning board or machine in the scullery.

Primary source. *Anne Frances Springsteed, The Expert Waitress: A Manual for the Pantry, Kitchen, and Dining-Room (1894), “General Rules.” Project Gutenberg, ebook #49202.*

Napkins must be folded simply, and not in fanciful shapes, as fans, etc. The edge of a knife must be turned towards the plate; bowls of spoons and tines of forks turned up. Knives and spoons must be placed at the right of a plate; forks at the left. Place knives and forks in the order in which they are to be used; the first one used, on the outside.

Go deeper. Bee Wilson, *Consider the Fork: A History of How We Cook and Eat* (2012), the chapter on knives and forks. Margaret Visser, *The Rituals of Dinner* (1991), on the history of table manners and implements (for older readers and parents). The Mauritshuis website has a page on Clara Peeters’s still life with her signed knife. Springsteed’s whole book is free at Project Gutenberg (ebook #49202). Second video topic: “How a Sheffield cutlery maker forges a table knife.”

Goes deeper in. History, “The Renaissance,” and Arithmetic, “Measuring with Inches” (coming soon).

For families. Sources: Springsteed (1894), Project Gutenberg #49202; Wilson, *Consider the Fork*; Coryat's *Crudities* (1611). The Richelieu knife story and the Byzantine bride in Venice (told by Peter Damian) are presented as traditions with thin or embellished evidence. The date of John Winthrop's fork is given variously as 1630 or 1633, so the stop says "the 1630s." The figure of about nine in ten people being right-handed is a common estimate. Rules vary a little between American and British books; this stop follows common American practice. Picture: Clara Peeters, Mauritshuis, The Hague.

PRACTICE

1. **EASY** On which side do forks go, and why?
2. **EASY** Which way does the knife's blade face? Give two reasons.
3. **MEDIUM** Use the b-and-d trick to say where the bread plate and the water glass go.
4. **MEDIUM** Why did table knives become round-ended in the 1600s and 1700s? Which explanation is documented, and which is a legend?
5. **CHALLENGE** A dinner will serve, in order: oysters, soup, salad, and a main course. Lay out the flatware from far left to far right (the plate in the middle), and explain.
6. **CHALLENGE** Springsteed gives four rules in the Primary source box. Sort them by purpose: which concern safety, which concern the order of the meal, and which concern appearance or habit? Does any rule rest on more than one purpose? Which, if any, would a modern host change?

Make it a game • Setting Relay. Put the pieces for two place settings in a jumbled pile at one end of the room and the table at the other. Two players race, carrying one piece per trip. A judge then checks each setting against Springsteed's four rules and the 1-inch line, adding five seconds for every mistake. The fastest corrected time wins; the winner becomes the next judge.

Scripture. "Let all things be done decently and in order." (1 Corinthians 14:40, KJV)

Paul wrote this about worship in the church at Corinth, where disorder was crowding out love and understanding. The principle reaches into ordinary life too: order is not fussiness when it serves others. A table set with care says to each guest, before a word is spoken, "You were expected."

Practice: answers

1. On the left, because most people are right-handed: the knife does the cutting in the right hand, while the fork holds the food steady in the left.
2. Toward the plate. It keeps the sharp edge away from the neighbor's hand (safety and courtesy), and it is the way Springsteed's 1894 rules and modern books both require, so every place looks the same.
3. The left hand makes a "b," so bread goes on the left (upper left, above the forks). The right hand makes a "d," so the drink goes on the right, just above the tip of the knife.

4. Documented: the fork increasingly took over the job of spearing food, so a pointed knife was no longer needed at table, and rounded table knives became standard. Legend or poorly documented: that Cardinal Richelieu had his knife points ground off because a guest picked his teeth, and the exact details of Louis XIV's restrictions.
5. Left side, from outside in: salad fork, then dinner fork next to the plate. Plate. Right side, from the plate outward: dinner knife (blade in), soup spoon, then the oyster fork on the far right. The outside-in rule puts the first-used pieces farthest out (salad comes before the main course, so its fork is outside). The oyster fork is the one fork on the right because it is used first and held in the right hand.
6. Safety: "The edge of a knife must be turned towards the plate." Order of the meal: "Place knives and forks in the order in which they are to be used; the first one used, on the outside." Handedness and habit: "Knives and spoons must be placed at the right of a plate; forks at the left." Appearance and taste: the napkin rule and "bowls of spoons and tines of forks turned up." The knife-edge rule serves both safety and neatness; the right/left rule serves both handedness and order. A modern host keeps nearly all of them; some might relax the napkin rule for a party where a simple decorative fold is welcome (see Stop B3), but the reasoning behind each rule still holds.

2.2 FORMAL AND EVERYDAY PLACE SETTINGS

OBJECTIVES

- Set a basic, an informal and a formal place setting, and explain how the number of courses decides the number of pieces.
- Compare service à la française with service à la russe and explain how the change between them in the 1800s multiplied the pieces on a formal table.
- Use an 1894 manual's instructions for breakfast and for dinner as evidence of how one household set its table differently for different meals.

Warm-up. List every meal you have eaten in the last week and next to each write “basic,” “informal” or “formal.” How many of each? What made a meal feel formal: the food, the setting, the clothes, the guests, or the time it took?

Video slot. Video coming. Formal place setting explained piece by piece; service à la russe versus service à la française in the 1800s; a Victorian dinner party recreated. Search approved channels (a historic-house channel such as English Heritage or the National Trust, the Victoria and Albert Museum, Colonial Williamsburg, a culinary-school channel); preview first.

KEY TERMS

course

One stage of a meal, such as soup, fish, the main dish, salad or dessert. Each course may need its own plate and flatware.

service à la française

“French service”: many dishes set on the table at once in a balanced pattern, from which diners helped themselves and each other. Common at grand dinners in the 1600s and 1700s.

service à la russe

“Russian service”: dishes brought one after another, carved or portioned away from the table, and handed to each guest. It spread in France after about 1810 and in Britain by the later 1800s.

service plate

A large decorative plate (also called a charger) set at each place before a formal meal. Courses are set on it and it is removed before the main course.

family style

Serving dishes are set on the table and passed from hand to hand, so each person helps himself. The usual way of serving in most homes.

basic setting

The simplest everyday setting: plate, fork, knife, spoon, glass and napkin.

CORE IDEAS

Every place setting, from a picnic plate to a state banquet, follows the same principles: forks on the left, knives and spoons on the right, pieces laid in the order they will be used. What changes is the **number of courses**, and therefore the number of tools. A **basic setting** has one of each piece. An informal setting for a family dinner with guests may add a salad fork, a bread plate with butter knife, and a dessert spoon above the plate. A formal setting may begin with a **service plate**, up to three forks on the left, two or three knives and a soup spoon on the right, an oyster fork on the far right, several glasses above the knives, dessert silver above the plate, and a place card. A reader who understands the principle can decode any setting by asking, “What will be served, and in what order?”

Why did formal settings become so complicated? The answer lies in a change in how dinners were served. In the 1600s and 1700s, a grand dinner in France or England was usually served **à la française**. A “course” meant not one dish but many: soups, roasts, pies, vegetables and sweets were set out together in a symmetrical pattern that filled the whole table. Guests helped themselves and their neighbors from the dishes within reach; at the end of the course, everything was cleared and a second full spread was laid. It was a spectacle, but the food cooled, guests could reach only part of it, and a diner might keep one knife, fork and spoon through the whole meal.

In the early 1800s a different system arrived. In 1810 the Russian ambassador in France, Prince Alexander Kurakin, served dinners at his residence at Clichy in the Russian manner, and Paris talked about it. In **service à la russe**, the dishes came one after another; meat was carved at a sideboard; servants handed each guest a portion or offered a platter at his left. The table, freed of serving dishes, could be decorated with flowers, fruit and candles. Historians debate how quickly the change happened, and some date its arrival in England to the peace celebrations of 1814, but by the 1870s and 1880s Russian service had become the normal style for formal dinners in Britain and America.

Russian service had a consequence nobody planned: if each course came separately, each needed its own clean tools. Fish knives and forks, salad forks, dessert spoons and fruit knives multiplied. Victorian silversmiths, especially in America, added specialized pieces for almost every food: sardine forks, berry spoons, ice-cream forks and many more, so that the largest patterns offered dozens of different pieces. A formal Victorian dinner might run to seven or more courses, typically soup, fish, an entrée, a roast, game, a sweet and dessert. Meanwhile the fashionable dinner hour moved later, from mid-afternoon in the 1700s to seven or eight in the evening by the mid-1800s, a shift that helps explain afternoon tea (Stop B8).

Everyday meals stayed simpler, and good manuals said so plainly. Anne Frances Springstead’s *The Expert Waitress* (1894), written for a household with one or two servants, gives separate instructions for breakfast, luncheon, dinner and supper. Her breakfast place has one fork and a single breakfast knife; her dinner place has a fork for fish and a larger fork for the roast, “in the order in which they are to be used.” The difference is not snobbery. It is arithmetic: more courses, more tools.

After the First World War, fewer families kept servants, and formal service at home declined. Emily Post's *Etiquette* (1922) still described servant-served formal dinners in detail, but it also gave rules for the hostess who cooked and served herself. Today most homes eat **family style**, while formal settings appear at weddings, banquets, some restaurants and official dinners. Honest complexity: rules differ between countries and decades, and no single authority settles every question. British settings, for example, often lay the dessert spoon and fork above the plate as Americans do, but differ in smaller points. Where good books disagree, the principle (order of use, ease for the guest) is the safest guide.

Is a formal table more virtuous than a kitchen table? No. "Better is a dinner of herbs where love is, than a stalled ox and hatred therewith" (Proverbs 15:17). Jesus ate at a Pharisee's formal feast and also cooked fish over coals for His disciples on the shore (John 21). A formal setting is a way of saying, "This occasion matters and you matter"; an everyday setting says, "You belong here." A wise host knows how to do both well.

PICTURE STUDY



Dinner at Haddo House, 1884, Alfred Edward Emslie, Painted after a dinner on 15 September 1884; first exhibited 1890 · Oil on canvas · National Portrait Gallery, London (NPG 3845)
Wikimedia Commons · Public domain

Alfred Emslie was in Scotland to paint a portrait at Haddo House, home of the Earl and Countess of Aberdeen, when they gave a dinner for the Prime Minister, William Ewart Gladstone, on 15 September 1884. Emslie painted the scene. It is a record of a real formal dinner served in the Russian style, with a piper, Andrew Cant, playing for the guests as was the custom at Haddo.

Look closely

- Look along the table. Do you see large serving dishes set out, or mostly glasses, candles and decorations? What does that tell you about the style of service?
- Find the servants. Where do they stand, and what are they ready to do?
- Look at the glasses and silver at each place. Can you count how many pieces a single guest has?

Talk about it

1. Using the core ideas, explain how this painting shows service à la russe rather than à la française.
2. A family supper in the same house would have looked very different. Name three differences you would expect, and explain why each follows from the number of courses or the number of people serving.

HANDS-ON: TWO TABLES, ONE PRINCIPLE

Plan two meals for your family: an ordinary weekday supper and a five-course formal dinner. Set one place for each, side by side, and prove that the same principles govern both. Then compare your settings with Springsteed's 1894 breakfast and dinner instructions in the Primary source box.

You will need

- Plates (large and small), and as many forks, knives and spoons as you have
- Two or three glasses and two napkins
- Index cards for menu cards and place cards
- Ruler, pen, and a camera or paper for sketching

Steps

1. Write a weekday menu (for example: soup and bread, or a casserole and salad) and a five-course formal menu (for example: soup, fish, salad, roast chicken, dessert). Write the formal menu neatly on a menu card.
2. For each menu, list every course and the tools it needs. Cross out any tool that can be shared or that will be brought with the course.
3. Set the everyday place. Then set the formal place next to it, outside-in, with dessert silver above the plate and no more than three forks on the table at once.
4. Photograph or sketch both from above and label every piece with its course.
5. Read the Springsteed passages. Write a short table: her breakfast place, her dinner place, your everyday place, your formal place. Mark what all four share.
6. Write two or three sentences explaining which principle stayed the same in all four and what changed.

Check your work

- Every piece on my formal setting matches a course on my menu.
- Both settings follow the outside-in rule.

- My comparison table includes Springsteed's two settings and my two.
- My conclusion names the shared principle and the reason the settings differ.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, explain how the change from service à la française to service à la russe changed the dinner table. Include the date 1810, Prince Kurakin, and at least one consequence for place settings. A parent dates and keeps the page.
2. Draw two bird's-eye diagrams of a table for four: one laid à la française with serving dishes in a symmetrical pattern, one laid à la russe with only flowers, candles and place settings.
3. Paste or copy your formal menu card.

Did you know? Under Russian service, a host often placed a printed or hand-written menu card at the table so guests could see what courses were coming and pace their appetites. Under French service there was less need: guests could see the whole course spread before them.

Primary source. *Anne Frances Springsteed, The Expert Waitress: A Manual for the Pantry, Kitchen, and Dining-Room (1894), from "Breakfast" and "Dinner."* Project Gutenberg, ebook #49202. Separate sentences; the ellipses mark omitted text.

Breakfast: On the table, at the right of the plates, lay a breakfast knife, with the sharp edge of the blade turned towards the plate, a silver knife for butter, and a dessertspoon, with bowl turned up. ... At the left lay a breakfast fork, with the tines turned up, and a napkin.

Dinner: At the left of each plate lay a fork for fish, and a larger one for the roast. ... Lay them in the order in which they are to be used, the fish fork being outside.

Go deeper. Margaret Visser, *The Rituals of Dinner* (1991), on French and Russian service (for older readers and parents). Emily Post, *Etiquette in Society, in Business, in Politics and at Home* (1922), chapters on formal and informal dinners, free at Project Gutenberg (ebook #14314). The National Portrait Gallery, London, has a page on *Dinner at Haddo House, 1884* naming the guests. Second video topic: "A Victorian Christmas dinner recreated at a historic house."

Goes deeper in. History, "Victorian Britain," and Small Business & Economics, "Seven Small Businesses" (restaurant and catering) (coming soon).

For families. Sources: Springsteed (1894), Project Gutenberg #49202; Visser, *The Rituals of Dinner*; National Portrait Gallery, London, NPG 3845. Kurakin's 1810 dinners are widely reported; some historians date the English adoption to 1814 and stress that the change was gradual, so the stop gives both. Course lists varied widely; "seven or

more” is a typical, not fixed, number. The Primary source gives separate sentences joined by ellipses because the original sentences are not adjacent. Gladstone appears in the painting as a historical figure; the stop takes no view of his politics.

PRACTICE

1. **EASY** What decides how many pieces of flatware go in a place setting?
2. **EASY** Define service à la française and service à la russe in one sentence each.
3. **MEDIUM** Who is credited with bringing Russian service to Paris, and in what year?
4. **MEDIUM** According to the Primary source, how many forks does Springsteed’s breakfast place have, and how many her dinner place? Explain the difference.
5. **CHALLENGE** Explain why the switch to Russian service both *emptied* the table of serving dishes and *filled* each place with more flatware.
6. **CHALLENGE** A host plans this formal menu: soup, fish, roast, salad (served after the roast, in the European manner), dessert. Lay out the place from left to right, and say where the dessert pieces go. Why might the salad fork sit next to the plate this time?

Make it a game • Decode the Setting. One player secretly writes a menu of three to six courses and sets a place to match it. The others study the setting for one minute and then write down the menu, course by course, in order. Score one point for each course named in the right position. Then switch. Bonus point for spotting a deliberate mistake the setter has hidden.

Scripture. “Better is a dinner of herbs where love is, than a stalled ox and hatred therewith.” (Proverbs 15:17, KJV)

A “stalled ox” was a beast fattened in the stall for a feast, the finest meat a household could serve. Solomon weighs it against a plain dish of greens and finds love the heavier. Formal or everyday, a table is measured first by the peace and kindness around it.

Practice: answers

1. The number and kind of courses that will be served.
2. À la française: many dishes set on the table at once, from which guests help themselves and each other. À la russe: dishes brought one after another and handed or plated to each guest by servers.
3. Prince Alexander Kurakin, the Russian ambassador, at his residence at Clichy in 1810.
4. Breakfast: one (a breakfast fork). Dinner: two (a fish fork and a larger fork for the roast). Dinner has more courses, a fish course and a roast, so it needs more tools, laid in order of use with the fish fork outside.
5. Emptied: food was carved and portioned at the sideboard and brought round by servants, so serving dishes no longer needed to stand on the table; the space went to flowers, fruit and candles. Filled: because courses now came one at a time and each was eaten separately, each course needed clean, suitable tools. Rather than wash between courses, hosts laid or brought fresh pieces for each, and silversmiths invented specialized ones.

6. Left, outside in: fish fork, dinner (roast) fork, salad fork next to the plate. Plate (or service plate). Right, from the plate outward: dinner knife, fish knife, soup spoon. Dessert spoon and fork above the plate (or brought in with dessert). The salad fork sits innermost because salad comes after the roast here; the outside-in rule follows the actual order of courses, not a fixed position for each fork.

2.3 NAPKIN FOLDING

OBJECTIVES

- Fold three napkin designs (the plain oblong, the cutlery pocket and the bishop’s mitre) and explain each fold in the language of geometry.
- Trace the history of the table napkin from the Roman *mappa* through Renaissance folding to Victorian fashions and the 1890s reaction against them.
- Use a 1921 etiquette book as a primary source to state and defend the rules for using a napkin at table.

Warm-up. Take a square napkin or a square of paper. Without instructions, fold it into something that will stand up by itself on a plate. How many folds did it take? What made it stand: layers, stiffness, or shape?

Video slot. Video coming. How to fold a bishop’s mitre napkin and a cutlery pocket fold; historic napkin folding (Mattia Giegher, 1629) recreated by a museum or historic-house team. Search approved channels (a historic-house channel such as Historic Royal Palaces or the National Trust, a culinary-school or hospitality channel, a museum channel); preview first.

KEY TERMS

napery

An old word for household table linen: tablecloths, napkins and towels.

damask

A reversible woven fabric, often white linen, whose pattern appears by the way the threads catch the light. Fine table linen was woven in damask.

mappa

The Latin word for the cloth a Roman diner used to wipe his hands. English “map” and “napkin” both trace back to related words for cloth.

starch

A stiffener made from grain or potatoes, used on linen so that folds stay crisp and sculpted shapes stand up.

bishop’s mitre

A standing napkin fold shaped like the tall, pointed hat worn by bishops in many churches.

line of symmetry

A line along which a shape can be folded so that both halves match exactly. Every good napkin fold uses one.

CORE IDEAS

Romans of the wealthier classes often ate reclining on couches and took much of their food with their fingers, so a cloth for the hands was a necessity. A Roman diner used a **mappa**, and the poet Martial joked about guests who carried home food in their napkins after a feast. The idea of a personal cloth at table is therefore very old, but for most of the next thousand years it was not the usual practice.

In the medieval hall the tablecloth itself did much of the work. Long cloths, sometimes doubled, covered the boards; diners washed their hands from a ewer and basin before and after the meal and wiped them on towels carried round by servants or on the edge of the cloth. Courtesy books for boys in service warned them not to blow their noses on the cloth or wipe their knives on it. Fine linen was valuable, and inventories of great houses list it carefully alongside the silver.

The 1500s and 1600s made table linen into art. Weavers in Flanders and the Netherlands produced linen **damask** with patterns of hunting scenes, coats of arms and Bible stories that shone when light crossed the cloth. Linen was pressed in a heavy screw press so it showed a grid of sharp creases, a sign of wealth that Dutch painters loved to record. In Italy, napkin folding became a banquet spectacle. In 1629 Mattia Giegher, a Bavarian born Matthias Jäger who worked in Padua as a carver and steward for banquets, published *Li tre trattati* ("The Three Treatises"), on carving, on serving, and on folding. It is the first known book to describe and illustrate the art of folding starched napkins into table sculptures: animals, birds, castles and ships.

The Victorians revived fancy folding with enthusiasm. Household books offered the mitre, the fan, the lily, the swan and many more, and a stiffly starched napkin standing at each place became part of the formal dinner. Then came a reaction. In *The Expert Waitress* (1894), Anne Frances Springsteed laid down flatly that "Napkins must be folded simply, and not in fanciful shapes, as fans, etc." Her reasons were practical: elaborate folds took time, required much handling of a cloth that would touch the guest's mouth, and could crowd the bread and silver. Etiquette writers of the early 1900s generally agreed: a fine napkin, simply folded, was the mark of good taste.

Using the napkin has rules as well. Lillian Eichler's *Book of Etiquette* (1921) advised that a large dinner napkin be opened only halfway and laid across the knees, used freely during the meal, and at the end placed loosely on the table rather than refolded, since refolding suggested that the host might use it again before washing. Most modern guides agree on the main points: wait for the host to lift his napkin first; dab, do not scrub; if you leave the table during the meal, lay it on your chair (American custom) or loosely beside your plate (some European custom); at the end, lay it loosely to the left of the plate. Honest complexity: guides disagree on the chair-or-table question, so follow the host.

Napkin folding is applied geometry. A dinner napkin is commonly a square of roughly 20 to 24 inches, a luncheon napkin a smaller square. Each fold along a **line of symmetry** halves the visible area and doubles the layers: a 20-inch square folded in half is a 20-by-10-inch

rectangle of 2 layers; folded again, a 10-inch square of 4 layers. A diagonal fold makes a right triangle whose long side is the square's diagonal, about 1.41 times the side, so a 20-inch napkin has a diagonal of about 28.3 inches. Standing folds such as the mitre work because many layers, pressed edges and a closed base act together like a little tent. Starch adds stiffness; that is why Giegher's sculptures needed it.

Why fold at all, then? Because a simple, careful fold says that someone prepared this place. It is a small act of welcome that costs nothing but attention. A household that keeps good cloth napkins also practices thrift, since they last for years. The test of any fold is the one Springsteen applied: does it serve the guest, or does it only show off the host?

PICTURE STUDY



Still Life with Cheese, Floris Claesz van Dijck, c. 1615 · Oil on panel · Rijksmuseum, Amsterdam (SK-A-4821)
Wikimedia Commons · Public domain

Floris van Dijck was a painter of Haarlem and one of the first Dutch artists to paint laid tables. In his own day a picture like this was called a “breakfast.” He tilted the table toward us so that nothing hides anything else, and he painted the costly white damask so carefully that you can see the grid of folds pressed into it.

Look closely

- Find the creases in the white cloth. What pattern do they make, and what tool would have pressed them so sharply?
- Look for the pattern woven into the damask. How does the painter show it with only white and gray?
- Find the pewter plate hanging over the edge. Why might the painter want it to seem close enough to touch?

Talk about it

1. What does this cloth tell you about the value of linen in the 1600s? Give two clues from the painting.
2. Compare this table with a Victorian table of starched, standing napkins (search for “bishop’s mitre napkin” images). Which would Springsteed prefer, and why?

Safety first. If you starch or iron napkins, an adult should supervise the iron. Keep the cord away from the edge of the board, set the iron on its heel when not in use, and never leave it on unattended.

HANDS-ON: THREE FOLDS AND A RULE CARD

Fold three napkin designs, measure them, and write a rule card for napkin use based on Lillian Eichler’s 1921 passage in the Primary source box.

You will need

- Three square cloth napkins (or squares of paper about 12 inches on a side for practice)
- A ruler
- An iron and spray starch (optional, with an adult)
- A knife and fork for the pocket fold
- An index card and pen

Steps

1. **Plain oblong (Springsteed’s fold).** Fold the square in half, then in half again to make a smaller square. Fold that square in thirds, edges to the middle, to make a neat oblong. Lay it to the left of the forks with the folded edge toward the plate.
2. **Cutlery pocket.** Fold the napkin into quarters. Turn it so the loose corners point to the top right. Fold the top layer down diagonally to the bottom-left corner and crease. Fold the second layer down diagonally so it stops about an inch above the first fold. Turn it over, fold the left and right sides under so the pocket is about one third of the original width, turn it back, and slip a knife and fork into the pocket.
3. **Bishop’s mitre.** Fold the square in half to make a rectangle with the fold at the bottom. Fold the top-right corner down to the middle of the bottom edge, and the bottom-left corner up to the middle of the top edge, making a parallelogram. Turn it over. Fold the bottom edge up to the top edge, letting the triangular point on one side stick out. Turn it over again, fold one end around and tuck it into the pocket of the other end, then stand the napkin up and open the base into a ring. If it will not stand, check that your corner folds met the center exactly, or starch the napkin.
4. Measure each finished fold and write its dimensions and number of layers in your notebook.
5. Read Eichler’s passage. On an index card, write four rules for using a napkin at a formal dinner, each followed by the reason she gives or implies.

Check your work

- I folded all three designs, and the mitre stands by itself.
- I recorded the size and layers of each fold.
- My rule card has four rules, each with a reason drawn from the primary source.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, tell the history of the table napkin from the Roman mappa to Springsteed’s rule of 1894. Include Mattia Giegher and the year 1629. A parent dates and keeps the page.
2. Draw step diagrams for the bishop’s mitre, one small square per step, with arrows showing each fold and dashed lines for lines of symmetry.
3. Tape in a small paper version of your favorite fold, or a photo of all three.

Did you know? The French word *serviette* is still used for a napkin in Britain and Canada. The English word *napkin* comes from the Old French *nappe*, “tablecloth,” with the little ending *-kin*, so a napkin is literally a “little tablecloth.” The word *apron* comes from the same family: “a napron” became “an apron.”

Primary source. Lillian Eichler, *Book of Etiquette, Volume II (1921)*, “Dinners,” section “Use of the Napkin.” Project Gutenberg, ebook #7029.

The proper way to use a napkin, whether it is at a formal dinner, or in a restaurant, is to unfold it only half, leaving the center fold as it is, and lay it across the knees. It may be used constantly during the meal, whenever the guest finds need for it, but it must never be completely unfolded. When rising from the table, the napkin is placed as it is on the table. It is never folded again into its original form, as that would be an assumption on the part of the guest that the hostess would use it again before laundering.

Go deeper. The New York Public Library Digital Collections has a digitized copy of Mattia Giegher’s *Li tre trattati* (1629) with its folding plates (search “Li tre trattati di messer Mattia Giegher”). The Rijksmuseum page for Floris van Dijck’s *Still Life with Cheese* (SK-A-4821) lets you zoom into the damask. Margaret Visser, *The Rituals of Dinner* (1991), on napkins and tablecloths. Second video topic: “How linen damask is woven on a Jacquard loom.”

Goes deeper in. Arithmetic, “Geometry: Squares, Triangles and Symmetry,” and Art, “Still Life” (coming soon).

For families. Sources: Eichler (1921), Project Gutenberg #7029; Springsteed (1894), Project Gutenberg #49202; Thinking 3D and NYPL on Giegher (1629). Martial’s joke about napkins used to carry food home is well known, but customs varied, so the stop keeps it general. Napkin sizes vary by maker; the figures are typical, not fixed. Fold

instructions are standard modern methods; a short video helps with the mitre. On John 20:7: a popular modern story claims a Jewish table custom in which a folded napkin meant “I am coming back.” There is no historical evidence for that custom, so the stop does not repeat it.

PRACTICE

1. **EASY** What is the first known book on napkin folding, who wrote it, and when?
2. **EASY** What did Springsteed in 1894 say about fancy napkin folds, and what is one practical reason for her rule?
3. **MEDIUM** According to Eichler, why should a guest not refold the napkin at the end of a dinner?
4. **MEDIUM** A 22-inch square napkin is folded in half and then in half again. What are the dimensions and how many layers are there?
5. **CHALLENGE** A 20-inch napkin is folded once along its diagonal. What shape results, what is the length of its longest side (to the nearest tenth of an inch), and what is its area compared with the original?
6. **CHALLENGE** Eichler says the napkin is unfolded only halfway and “must never be completely unfolded.” Give two practical reasons for that rule, and say whether you think it applies to a small luncheon napkin.

Make it a game • Fold-Off. Each player has one paper square and three minutes. A caller names a fold (oblong, pocket, mitre, or “inventor’s choice”). When time is up, each fold faces two tests: Does it stand or hold a fork? Could it be shaken out by a guest with one hand? Score one point per test passed and one bonus point for the neatest creases. Play three rounds.

Scripture. “And the napkin, that was about his head, not lying with the linen clothes, but wrapped together in a place by itself.” (John 20:7, KJV)

In the King James Bible “napkin” means a small cloth, here the cloth that had been wrapped about Jesus’ head in the tomb. John, who ran to the tomb with Peter, records the detail as an eyewitness: the grave clothes were left in order, not torn off in haste as by robbers. It is quiet evidence of the Resurrection, not a table custom.

Practice: answers

1. *Li tre trattati* (“The Three Treatises”), by Mattia Giegher (Matthias Jäger), published in Padua in 1629.
2. That napkins must be folded simply, not in fanciful shapes such as fans. Reasons: elaborate folds take time, require much handling of a cloth that touches the mouth, and can crowd the place.
3. Because refolding it into its original form would suggest that the guest assumes the hostess will use it again before laundering it; instead it is laid on the table as it is.
4. After one fold: 22 by 11 inches, 2 layers. After the second: 11 by 11 inches, 4 layers.

5. A right isosceles triangle. The longest side is the diagonal: $20 \times \sqrt{2} \approx 28.3$ inches. Its visible area is half the original: $400 \div 2 = 200$ square inches, with two layers.
6. Reasons: a large dinner napkin fully opened would hang to the floor or spill over the table and the neighbor; half-folded it stays on the lap and leaves a clean inner surface for the next use; it looks orderly. For a small luncheon napkin, which is not much larger than the lap, many guides allow it to be opened fully, because the reason for the rule (size) no longer applies. A good answer reasons from the purpose of the rule.

2.4 CENTERPIECES FROM THE GARDEN

OBJECTIVES

- Design and build a low table centerpiece from garden, yard or roadside materials, using rules of proportion and conversation height.
- Trace the table centerpiece from the medieval great salt to the Georgian epergne and the Victorian flower arrangement, and explain how Russian service changed it.
- Condition cut flowers correctly and explain the science behind each step.

Warm-up. Sit at your dining table and have someone hold a ruler upright in the middle. At what height does it begin to block your view of the person opposite? Write the number down; you will use it as the height limit for your centerpiece.

Video slot. Video coming. How to condition cut flowers from the garden; making a low seasonal table arrangement; Georgian silver epergnes and 18th-century table decorations. Search approved channels (a botanical-garden or extension-service channel, the Royal Horticultural Society, a museum channel such as the Metropolitan Museum of Art or the Victoria and Albert Museum); preview first.

KEY TERMS

centerpiece

A decoration in the middle of the table, usually of flowers, greenery, fruit or candles.

epergne

An ornamental stand, usually silver or glass, with branching arms holding small dishes for fruit, sweets or flowers. Popular in Britain from the mid-1700s (say “ay-PURN”).

surtout de table

A long, low centerpiece platform, often mirrored or of gilt metal, on which figures, candlesticks and sweets were arranged at grand dinners in the 1700s and 1800s.

conditioning

Preparing cut flowers to last: cutting stems under water or at an angle, stripping lower leaves, and letting them drink in cool water before arranging.

focal, filler and greenery

The three roles in an arrangement: a few bold focal flowers, smaller filler flowers, and leaves or branches that give shape.

proportion

The relation of sizes. A common rule: an arrangement is about one and a half to two times as tall (or wide) as its container.

CORE IDEAS

The middle of the table has always held something that mattered. In the medieval hall the most important object was often the great salt, a large and sometimes splendid salt cellar placed before the lord. Some great houses also had a *nef*, a vessel shaped like a ship, in silver or gilt, which held the lord's salt, spices or personal knife and spoon. The old phrase "above the salt" for the honored end of the table reflects this, though historians caution that the phrase is better attested than the exact seating customs behind it.

In the 1700s, grand tables became stages. A long **surtout de table**, sometimes mirrored, ran down the center and carried figures of porcelain or sugar, candlesticks and dishes of sweets. Porcelain makers such as Meissen in Saxony sold whole sets of table figures. In Britain the **epergne** became fashionable from about the mid-1700s: a central silver stand with branching arms holding little baskets of fruit, nuts and sweetmeats. These were displays of wealth and craft, and under French service they had to compete for space with dozens of serving dishes.

The coming of service à la russe in the 1800s (Stop B2) changed the center of the table. Once the serving dishes left the table for the sideboard, the space they had filled was free for decoration, and flowers moved in. Victorian hostesses arranged ferns, roses and trailing greenery in tall stands and low bowls, sometimes running vines along the whole cloth. Anne Frances Springstead's *The Expert Waitress* (1894) shows the habit in an ordinary household: for breakfast and luncheon she placed "a vase of flowers, a pot of ferns, or a glass plate" of sweets in the center, and for supper flowers with four candlesticks around them.

The first rule of a modern table centerpiece is **conversation height**. Seated adults see each other across the table at roughly 12 to 14 inches above the tabletop, so most guides keep a centerpiece below about 12 inches, or else use something tall and slender, like a candle or a single branch, that the eye can see past. The second rule is **proportion**: an arrangement roughly one and a half to two times the height of its container usually looks balanced. The third is **scent**: strongly perfumed flowers such as lilies or hyacinths can overpower food, because much of what we call taste is smell. The fourth is safety: some garden plants are poisonous, including lily of the valley, foxglove and oleander, and lilies are dangerous to cats; keep them away from food and pets, or leave them in the garden.

Conditioning is plant science. A cut stem is still trying to draw water up its xylem vessels, but when the stem is cut in air, a bubble of air can enter and block the column. Cutting the stem again under water, or at a slant with a clean blade, opens fresh vessels and increases the area that can drink. Leaves below the waterline rot and feed bacteria that clog stems, so they are stripped. Flowers cut in the cool of early morning or evening hold more water than flowers cut in midday heat. Some stems need special care: daffodils release a sap that shortens the life of other flowers, so they are conditioned in a separate container for several hours first. Changing the water every day or two adds days of life.

A garden centerpiece follows the seasons. Spring offers bulbs and flowering branches; summer, roses, zinnias, herbs and sunflowers; autumn, seed heads, colored leaves, small

gourds and apples; winter, evergreens, berries and pine cones. A good arrangement uses odd numbers of focal flowers, three heights, and a little empty space. Honest complexity: “rules” of arrangement come from many schools, English, Dutch, Japanese and American, and they disagree. A family table needs only a few: low, fresh, unscented near food, and safe.

Two cautions apply outside the garden. Pick from someone else’s garden only with permission, and never take protected wildflowers; many parks and states forbid picking altogether. Within those limits, a handful of greenery from the yard can turn an ordinary supper into an occasion. Jesus pointed His hearers to the lilies of the field, which neither toil nor spin, yet are clothed more gloriously than Solomon. Flowers on the table are a small daily sermon on God’s generosity.

PICTURE STUDY



Still Life with Flowers and Fruit, Henri Fantin-Latour, 1866 · Oil on canvas · The Metropolitan Museum of Art, New York
Wikimedia Commons · CC0

Henri Fantin-Latour was a French painter famous for his flowers. This picture is one of four still lifes he painted in 1866 for Michael Spartali, a Greek merchant living in London. Fantin admired the plain, honest still lifes of Chardin, and he painted garden flowers as if each one deserved full attention.

Look closely

- Find the tallest flower and the lowest. How does the painter lead your eye from one to the other?
- Count the main colors. Which color appears in more than one place, tying the picture together?
- Look at the vase. Is the arrangement about one and a half or two times its height?

Talk about it

1. Would this arrangement work as a dinner-table centerpiece? Use the conversation-height and scent rules to decide.
2. Fantin chose ordinary garden flowers, not rare hothouse blooms. What does that choice say about beauty and about hospitality?

Safety first. Use garden shears or pruners with an adult's permission, cut away from your body, and close them when you set them down. Learn which plants in your yard are poisonous (for example foxglove, lily of the valley, oleander) and keep them off the food table and away from pets. Wash hands after handling plants, and never pick from another person's garden or a protected area without permission.

HANDS-ON: A LOW GARDEN CENTERPIECE

Gather, condition and arrange a centerpiece from your own yard, garden or permitted roadside, keeping it below your measured conversation height. Then compare your choices with Springsteed's 1894 instructions in the Primary source box.

You will need

- Pruners or sharp scissors (adult supervision)
- A bucket of cool water
- A low container: bowl, jar, teapot, mug or small basket with a jar inside
- Flowers, leaves, branches, herbs, berries or seed heads gathered with permission
- A ruler
- Optional: two to four candlesticks or tea lights

Steps

1. Early in the morning or in the evening, gather three to five focal flowers, a handful of filler and some greenery. Put stems in water at once.
2. Indoors, strip every leaf that will sit below the waterline. Recut each stem at a slant, under water if you can. Let them drink in a cool place for at least an hour (daffodils in their own container for several hours).
3. Arrange greenery first to make the shape, then focal flowers in a triangle of three heights, then filler in the gaps. Keep the top below your warm-up height limit.
4. Measure the container and the finished arrangement. Is the arrangement about one and a half to two times the container?
5. Place it on the table and sit at every chair. Can each person see every other face?
6. Read Springsteed's sentences. Write a short paragraph: what would she recognize in your table, and what would surprise her?

Check your work

- My arrangement is below conversation height and every seat can see every face.

- I conditioned the stems: stripped, recut and rested in water.
- I can name every plant in it and know that none is poisonous near food.
- My paragraph compares my table with the 1894 source.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, explain how the center of the table changed from the great salt and the epergne to the low flower arrangement, and why service à la russe made room for flowers. A parent dates and keeps the page.
2. Make a labeled diagram of a cut stem showing the xylem, the cut, an air bubble, and where bacteria grow.
3. Press one flower from your arrangement and tape it into the notebook with its name and the date.

Did you know? A Victorian dinner in a grand house might use hothouse flowers, ferns and fruit grown on the estate itself, with a head gardener responsible for sending them to the dining room. Pineapples, grown in heated “pineries” at great cost, were so prized as centerpieces in Georgian England that one could reportedly be hired for an evening and returned.

Primary source. *Anne Frances Springsteed, The Expert Waitress: A Manual for the Pantry, Kitchen, and Dining-Room (1894), from “Breakfast” and “Supper.” Project Gutenberg, ebook #49202. Separate sentences from two sections.*

Breakfast: In the centre of the table place a vase of flowers, a pot of ferns, or a glass plate with crystallized ginger or bonbons.

Supper: Place flowers in the centre of the table, and four candlesticks in a square outside of them.

Go deeper. The Metropolitan Museum of Art’s online collection has Georgian silver epergnes and Meissen table figures (search “epergne” and “Meissen table decoration”). Gertrude Jekyll, *Flower Decoration in the House* (1907), month-by-month advice from the great English garden designer; a digitized copy is in Cornell University Library’s HEARTH collection. The Royal Horticultural Society website explains conditioning cut flowers. Second video topic: “How plants move water: xylem and transpiration.”

Goes deeper in. Gardening & Animals, “A Cutting Garden,” and Life Science, “How Plants Drink” (coming soon).

For families. Sources: Springsteed (1894), Project Gutenberg #49202; Metropolitan Museum of Art collection notes on the Fantin-Latour (1866, painted for Michael Spartali) and on epergnes; Royal Horticultural Society on cut flowers. The “above the salt” seating custom is better attested as a phrase than as a fixed rule, and the stop says so. The story

of hired pineapples is widely repeated but thinly sourced; it is marked “reportedly.” Conversation height (about 12–14 inches) is a common guideline, not a fixed law. Check plant toxicity with your local extension service or poison-control resources. Gertrude Jekyll’s book is listed for further reading only and is not quoted.

PRACTICE

1. **EASY** What is an epergne?
2. **EASY** Why should a dinner-table centerpiece usually be kept low?
3. **MEDIUM** Give three steps in conditioning cut flowers and the reason for each.
4. **MEDIUM** Your container is 5 inches tall. Using the proportion rule, how tall should the arrangement be? Is that below a 12-inch conversation height?
5. **CHALLENGE** Explain how the change from service à la française to service à la russe made Springsteed’s instruction “Place flowers in the centre of the table” both possible and natural.
6. **CHALLENGE** Springsteed offers three choices for the center of the breakfast table: flowers, a pot of ferns, or a plate of crystallized ginger or bonbons. Evaluate each for a winter breakfast in a modest household in 1894, considering cost, season and practicality.

Make it a game • Eye-Line Challenge. Each player builds a quick centerpiece from whatever is at hand in five minutes (a mug, a sprig, a pine cone, a candle). Then everyone sits around the table. One player at a time calls out the name of the person opposite; if any player cannot see that person’s eyes over the centerpiece, it loses a point. Most points after three rounds wins and chooses the centerpiece for supper.

Scripture. “And why take ye thought for raiment? Consider the lilies of the field, how they grow; they toil not, neither do they spin: And yet I say unto you, That even Solomon in all his glory was not arrayed like one of these.” (Matthew 6:28–29, KJV)

Jesus told His hearers not to be anxious about clothing, because their Father dresses even the wild flowers in glory. A centerpiece of field flowers is a small reminder at every meal that the same Father feeds and clothes His children.

Practice: answers

1. An ornamental central stand, usually silver or glass, with branching arms holding small dishes for fruit, sweets or flowers, fashionable in Britain from the mid-1700s.
2. So that seated guests can see and talk to each other across the table; most guides keep it under about 12 inches, or use something slender enough to see past.
3. Strip leaves below the waterline (they rot and feed bacteria that clog stems); recut stems under water or at a slant (removes air blocks and opens more surface to drink); cut in the cool of morning or evening and rest flowers in cool water (they are full of water and lose less); change the water often (less bacteria). Any three.
4. One and a half to two times 5 inches: 7½ to 10 inches. Yes, both are below 12 inches.
5. Under French service the center of the table was crowded with serving dishes, arranged symmetrically, so decoration had to compete for space (hence tall epergnes and surtouts that

combined food and display). Under Russian service the serving dishes went to the sideboard and food came round by courses, leaving the center empty and visible for the whole meal. Flowers filled that space, and by Springsteed's time even an ordinary household's breakfast and supper tables had them.

6. Flowers: cut flowers in winter would be costly unless from a home conservatory; possible in wealthier homes. Ferns: a potted fern lives indoors all year, costs little once bought, and needs only watering; the most practical winter choice (and ferns were a Victorian craze). Ginger or bonbons: decorative and edible, but they are eaten and must be replaced, and sweets at breakfast suit guests more than daily family use. A thoughtful answer notices that Springsteed gives choices precisely because seasons and budgets differ.

2.5 SAYING GRACE

OBJECTIVES

- Explain the biblical basis for giving thanks at meals, both before eating (the example of Jesus and Paul) and after eating (Deuteronomy 8:10).
- Describe how Christians in different centuries have said grace, including Luther's table prayers of 1529 and Chardin's painting of 1740.
- Analyze Paul's thanksgiving on the storm-tossed ship in Acts 27 and write and lead a grace of your own.

Warm-up. Write down, word for word, the grace your family says most often (or one you know). Then answer: Whom does it address? What does it thank Him for? Does it ask for anything? How long does it take to say? Keep your notes for the project.

Video slot. Video coming. Chardin's painting *Le Bénédicité* (Saying Grace) explained; the history of table blessings in Christian homes; a sung doxology before a meal. Search approved channels (the Louvre, the National Gallery, Smarthistory, a church or seminary channel such as Concordia Publishing House); preview first.

KEY TERMS

grace

A short prayer of thanks before or after a meal. From the Latin *gratiae*, "thanks"; English speakers have "said grace" since the Middle Ages.

blessing

In Scripture, to bless God is to praise and thank Him; to ask a blessing on food is to ask God to use it for good. Older Americans often called grace "asking the blessing."

Benedicite

Latin, "Bless ye," the opening word of a traditional prayer before meals. Chardin's painting *Le Bénédicité* takes its title from it.

thanksgiving

Giving thanks to God. Paul teaches that food "received with thanksgiving" is "sanctified by the word of God and prayer" (1 Timothy 4:4–5).

doxology

A short hymn of praise to God. Thomas Ken's doxology, written in the 1670s, is sung as a grace in many homes and churches.

catechism

A short book of Christian teaching by questions and answers. Luther's Small Catechism (1529) included prayers for mealtimes.

CORE IDEAS

Giving thanks at meals begins in the Law of Moses. As Israel prepared to enter Canaan, God commanded, “When thou hast eaten and art full, then thou shalt bless the LORD thy God for the good land which he hath given thee” (Deuteronomy 8:10). The command was a guard against forgetting: Moses warned that a full people in fine houses might say, “My power and the might of mine hand hath gotten me this wealth.” Jewish practice developed blessings both before eating, over bread, and a longer thanksgiving after the meal. Notice that the oldest command concerns thanks *after* eating, when we are tempted to feel self-sufficient.

Jesus, born under the Law, gave thanks at meals publicly and plainly. At the feeding of the five thousand He looked up to heaven, “he blessed, and brake, and gave the loaves to his disciples” (Matthew 14:19). He gave thanks at the Last Supper. After the Resurrection, at Emmaus, “he took bread, and blessed it, and brake, and gave to them” (Luke 24:30), and in that act the two disciples knew Him. The apostle Paul followed the same pattern in the worst circumstances imaginable, as the Primary source shows, and taught Timothy that “every creature of God is good, and nothing to be refused, if it be received with thanksgiving.”

The Acts 27 account deserves close study. Paul was a prisoner on a grain ship bound for Rome. For fourteen days a storm had driven it across the Adriatic Sea; the crew had thrown cargo and tackle overboard and had given up hope. In the dark before dawn, with the ship about to run aground, Paul urged everyone to eat, promised in God’s name that not a hair of their heads would perish, and then “gave thanks to God in presence of them all.” There were 276 people aboard (Acts 27:37), soldiers, sailors and prisoners, most of them pagans. Paul’s grace was not a private habit; it was a public confession of trust in God before people who did not share it. The result: “Then were they all of good cheer.” The ship was wrecked that morning, and every person reached shore alive.

Christians have said grace in many forms. Monasteries of the Middle Ages sang Latin graces, often beginning *Benedicite*. Colleges at Oxford and Cambridge still say Latin graces in hall. Martin Luther’s Small Catechism (1529) taught families to come to the table with folded hands and say Psalm 145:15-16, “The eyes of all wait upon thee; and thou givest them their meat in due season. Thou openest thine hand, and satisfiest the desire of every living thing,” followed by the Lord’s Prayer and a short blessing; after the meal they gave thanks again. In English-speaking homes the doxology of Thomas Ken, an Anglican clergyman (later a bishop) who wrote it in the 1670s for the boys of Winchester College, is often sung. Many Puritan households prayed at length; many modern families pray a short, memorized grace.

Postures and customs vary, and none is commanded. Heads may be bowed; hands may be folded or joined around the table; some families stand. Some pray before the meal only, some before and after. A host usually leads grace or asks someone to; a guest waits to see whether the household prays before lifting a fork, and a Christian guest in a home that does not say grace may pray silently and briefly. In a restaurant, a short, unshowy grace is fitting. Jesus warned against “vain repetitions” and against long prayers made for show, so a memorized grace is good when it is meant and poor when it is mumbled.

Honest complexity: saying grace is not a charm that makes food safe or good. Paul says that food is sanctified “by the word of God and prayer”: God declared His creation good, and prayer receives it gratefully as His gift. Grace also widens our sight. It remembers the farmers, millers, truckers and cooks whose work stands behind every loaf, and it reminds a well-fed family of the hungry, whom Scripture commands us to feed.

Jean-Baptiste-Siméon Chardin’s painting *Saying Grace* catches all of this in one small scene. A mother sets the dishes on the table, an older child waits with folded hands, and the youngest is just learning the words. When Chardin was presented to King Louis XV in 1740, this was one of the two paintings he offered him; he painted several versions, and one is now in the Louvre. The king of France was given a picture of a household thanking the King of heaven.

PICTURE STUDY



Saying Grace (Le Bénédicité), Jean-Baptiste-Siméon Chardin, c. 1740 · Oil on canvas · Musée du Louvre, Paris

Wikimedia Commons · Public domain

Chardin painted quiet scenes of ordinary Paris households and simple still lifes, in soft light and few colors. In 1740 he offered this subject to King Louis XV. He painted it more than once, and the version in the Louvre came to the museum in 1869 from the collection of Dr. Louis La Caze.

Look closely

- Find the youngest child’s hands. What are they doing, and what does the mother’s face suggest as she waits?
- Look at the table. Is the meal elaborate or simple? What has been set out?

- Follow the light. Where does it fall most brightly, and why might Chardin have chosen that spot?

Talk about it

1. What does this painting suggest about who teaches children to pray, and how?
2. Chardin gave this picture to a king. Why might a painting of a modest family at prayer be a fitting gift for a ruler?

HANDS-ON: A FAMILY BOOK OF GRACES

Make a small book of table graces for your family: three drawn from Scripture and history, one written by you, and a short study of Paul’s grace in Acts 27 from the Primary source box. Then lead grace at a family meal every day for one week.

You will need

- A King James Bible
- Folded paper or a small blank booklet
- A pen, and colored pencils for decoration
- A hymnal (optional, for Thomas Ken’s doxology)

Steps

1. Copy Psalm 145:15–16 (Luther’s grace before meals) and Deuteronomy 8:10 (a grace after meals) exactly from the KJV onto two pages.
2. Find Thomas Ken’s doxology in a hymnal or ask a parent to write it out; copy it onto a third page.
3. Read the Acts 27 Primary source aloud. On a fourth page, answer: Where was Paul? Who was listening? What did he do before giving thanks, and what happened after? Why does it matter that he gave thanks “in presence of them all”?
4. Write your own grace of three or four sentences. It should address God, thank Him for specific gifts and people, and remember someone in need. Keep it short enough to say in thirty seconds.
5. Lead grace at one family meal every day for a week, using a different page each day. Afterward, write one sentence about which grace your family liked best and why.

Check your work

- My book has three historic graces copied exactly and one of my own.
- My Acts 27 page answers all four questions with evidence from the passage.
- I led grace for a week and recorded what I learned.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, explain why Christians give thanks at meals. Use at least three Scripture passages from this stop,

including Paul's grace in Acts 27, and one example from church history. A parent dates and keeps the page.

2. Sketch Chardin's composition in simple shapes: where the mother, the children and the table sit, and where the light falls.
3. Map Paul's voyage in Acts 27: Crete, the Adriatic, and Malta (Melita).

Did you know? Chardin painted several versions of *Le Bénédicité*; versions were shown at the Paris Salon in 1740, 1746 and 1761. Engravings of the picture sold widely, so prints of a French family saying grace hung in many homes that could never have afforded a painting.

Primary source. *Acts 27:33–36, King James Version (1611).*

And while the day was coming on, Paul besought them all to take meat, saying, This day is the fourteenth day that ye have tarried and continued fasting, having taken nothing. Wherefore I pray you to take some meat: for this is for your health: for there shall not an hair fall from the head of any of you. And when he had thus spoken, he took bread, and gave thanks to God in presence of them all: and when he had broken it, he began to eat. Then were they all of good cheer, and they also took some meat.

Go deeper. Martin Luther, *Small Catechism* (1529), section on "Blessing and Thanksgiving at Meals," in any Lutheran edition. Read all of Acts 27–28 for the shipwreck and the winter on Malta. The Louvre's online collection has Chardin's *Le Bénédicité*. Second video topic: "Ancient grain ships of Rome and the voyage of Paul."

Goes deeper in. History, "The Early Church and the Roman World," and Art, "French Painting: Chardin" (coming soon).

For families. Sources: KJV; Luther's *Small Catechism* (1529); Louvre and other museum notes on Chardin. Chardin painted several versions; the one given to Louis XV in 1740 and the Louvre version are not certainly the same canvas, so the stop says "several versions" and "one is in the Louvre." The Latin "Benedicite" grace and college graces vary by place and are described generally. Thomas Ken's doxology is referred to but not quoted, so families can use the wording of their own hymnal. Families of different church traditions pray differently at table; the project invites each household to use its own customs.

PRACTICE

1. **EASY** Where in the Law of Moses is there a command to bless God after eating, and what was it meant to guard against?
2. **EASY** Name two meals at which the Gospels show Jesus giving thanks or blessing the bread.
3. **MEDIUM** What did Luther's *Small Catechism* (1529) tell families to say before meals?

4. **MEDIUM** In Acts 27, how many people were aboard, how long had they gone without proper meals, and what happened after Paul gave thanks?
5. **CHALLENGE** Using the Primary source, explain why Paul's grace was an act of leadership as well as of prayer. Point to at least three phrases.
6. **CHALLENGE** Paul says food is "sanctified by the word of God and prayer" (1 Timothy 4:5). Explain what this means and what it does not mean, with reference to Genesis 1.

Make it a game • Thanks from A to Z. Around the table, each person in turn names something to thank God for that starts with the next letter of the alphabet: apples, bread, cousins, the dentist, and so on. Anyone who repeats or takes more than ten seconds passes. Try to reach Z together, then end with a short grace that uses three of the words.

Scripture. "When thou hast eaten and art full, then thou shalt bless the LORD thy God for the good land which he hath given thee." (Deuteronomy 8:10, KJV)

Moses spoke these words to Israel at the edge of the Promised Land. Hunger reminds people to pray; fullness tempts them to forget. A grace after the meal, as well as before it, keeps the giver in view when the plate is empty.

Practice: answers

1. Deuteronomy 8:10. It guarded against forgetting God when well fed and prosperous, and thinking "my power ... hath gotten me this wealth."
2. Any two: the feeding of the five thousand (Matthew 14:19), the feeding of the four thousand, the Last Supper, the meal at Emmaus (Luke 24:30).
3. Come to the table with folded hands and say Psalm 145:15–16 ("The eyes of all wait upon thee ..."), then the Lord's Prayer, then a short prayer asking God to bless them and His gifts; and to give thanks again after the meal.
4. 276 people (Acts 27:37). Fourteen days. They were "all of good cheer" and ate; the ship ran aground that morning and broke up, but everyone reached land safely.
5. "Paul besought them all to take meat": he took responsibility for the whole company's strength, not only his own. "For this is for your health": he gave a practical reason. "There shall not an hair fall from the head of any of you": he gave hope grounded in God's promise. "Gave thanks to God in presence of them all": he publicly confessed his trust before pagans, soldiers and sailors. "He began to eat": he went first. "Then were they all of good cheer": his example changed the mood of 276 frightened people.
6. It means that food is set apart for holy, grateful use because God's word declared His creation good (Genesis 1: "it was good") and because prayer receives it as His gift with thanks; in context Paul was answering teachers who forbade certain foods. It does not mean grace is a charm that changes the food's chemistry or makes unsafe food safe, nor that food without grace is evil. The emphasis is on God as Giver and the eater as grateful receiver.

2.6 TABLE MANNERS AND GOOD CONVERSATION

OBJECTIVES

- Use both the American (“zigzag”) and the Continental styles of knife and fork, and explain the reason behind at least eight common table manners.
- Trace the tradition of courtesy books from Erasmus (1530) through George Washington’s Rules of Civility to the etiquette books of the 1920s.
- Plan and lead a mealtime conversation that includes every person at the table, guided by Colossians 4:6.

Warm-up. Think of the most pleasant meal you have ever shared with other people. Was it pleasant because of the food, or because of the people and the talk? Write two sentences. Then write one table habit (yours or anyone’s) that makes a meal less pleasant, and why.

Video slot. Video coming. American versus Continental style of using a knife and fork; the art of dinner-table conversation; George Washington’s Rules of Civility explained. Search approved channels (Mount Vernon (George Washington’s Mount Vernon), Colonial Williamsburg, a culinary-school or etiquette-teaching channel); preview first.

KEY TERMS

courtesy book

A book of rules for behavior in company, especially at table. Courtesy books were written for boys in noble service from the Middle Ages onward.

civility

Polite, considerate behavior toward others in public life. Erasmus’s book of 1530 made the word popular across Europe.

American (zigzag) style

Cut with the knife in the right hand and the fork in the left; then lay the knife down, switch the fork to the right hand, and eat.

Continental style

Keep the fork in the left hand, tines down, and the knife in the right throughout, bringing food to the mouth with the left hand. Usual in Britain and Europe.

Table Talk

Conversation recorded at a meal. Martin Luther’s *Tischreden* (“Table Talk”), written down by students who boarded in his home, were published in 1566.

open question

A question that cannot be answered with one word, such as “What was the hardest part of that trip?” Open questions start conversations; closed questions often end them.

CORE IDEAS

Table manners can look like arbitrary rules invented to make people nervous. Most of them, however, rest on three plain reasons. Some protect **health**: not double-dipping, not talking with food in the mouth, covering a cough. Some show **consideration**: passing dishes before helping yourself, waiting until all are served, not reaching across a neighbor. Some avoid **drawing attention to yourself**: eating quietly, keeping elbows in, not hurrying or dawdling far behind everyone else. When you know the reason, you can work out the right thing to do in a situation no rule book covers.

Christians have written about manners for a long time. In 1530 the Dutch scholar Erasmus of Rotterdam published *De civilitate morum puerilium* ("On Civility in Children"), a short Latin handbook dedicated to a boy of noble family, Henry of Burgundy. It covered posture, dress, speech and above all conduct at table, and it was reprinted, translated and imitated across Europe for two centuries. A related tradition began with French Jesuit teachers, whose rules of 1595 were translated into English. Around 1744, a teenage George Washington copied 110 of these rules, in English, into a school notebook under the heading "Rules of Civility and Decent Behaviour in Company and Conversation." Many concern the table: not to eat greedily, not to spit or scratch at meat, not to speak with the mouth full, and to let the master of the house begin. Washington's copybook survives in the Library of Congress.

The knife and fork have their own history. In Europe the fork usually stayed in the left hand, tines down: the **Continental style**. Americans developed the **zigzag**: cut, lay the knife down, switch the fork to the right hand, eat. No one knows for certain why. A common theory points to the blunt two-tined forks and round-ended knives of the 1700s, which made it natural to use the fork like a spoon in the stronger hand. Etiquette writers of the 1920s, such as Lillian Eichler in her *Book of Etiquette* (1921), taught the zigzag as correct American practice. Today both are acceptable at an American table; what matters is to do either neatly.

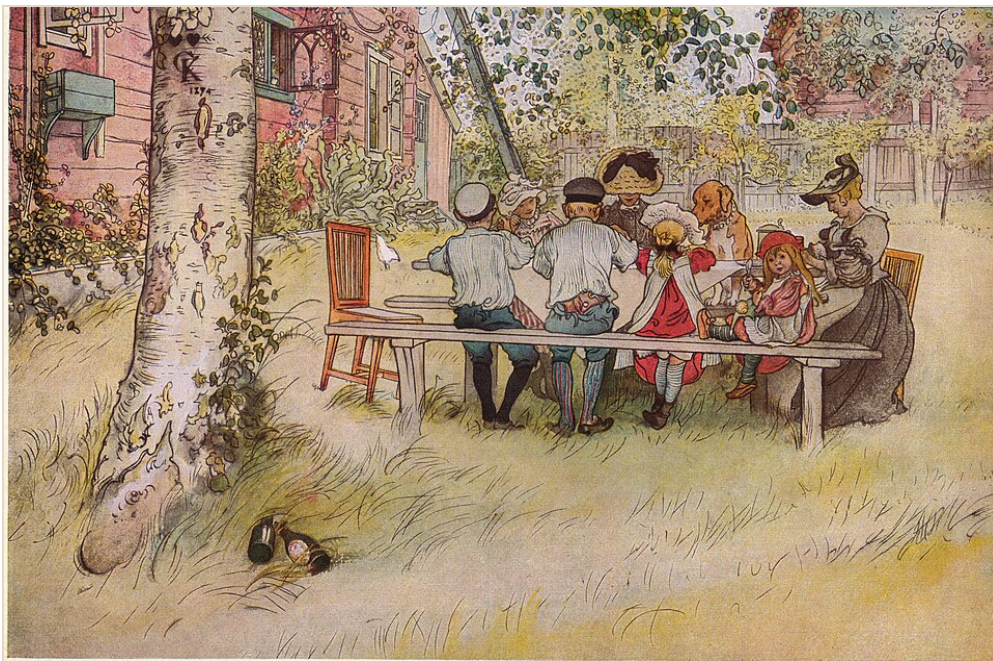
Some rules worth knowing: sit up straight, about a hand's breadth from the table; lift the napkin to the lap when the host does; wait until everyone is served and the host begins (or invites you to begin); pass dishes to the right, counterclockwise, and pass salt and pepper together; take a modest first helping; cut one or two bites at a time; break bread into small pieces rather than biting a whole roll; rest the knife and fork on the plate, never half on the table; when finished, lay them side by side across the plate. Elbows: Eichler wrote that idle hands rest in the lap and "never should the elbows be rested on the table." Many modern guides allow elbows on the table between courses, but never while eating.

Good conversation is the other half of a good table, and it is a skill. Martin Luther's house in Wittenberg was full of students who boarded there, and they wrote down so much of what he said at dinner that the collection, published in 1566 as the *Tischreden*, runs to thousands of entries, on theology, music, politics and family life. A table can be a school. Most of us are not Luther, so the art lies in drawing others out: ask **open questions**, listen to the answer, ask a follow-up, and include the quiet person and the youngest child. At Victorian formal dinners, guests often talked with the neighbor on one side during one course and "turned" to the other side for the next, so no one was left out.

Some topics have traditionally been kept off the table: illness in detail, money and prices, gossip, and quarrels. That is not because those subjects are unimportant, but because a meal is a poor place to settle them and an easy place to wound someone. Honest complexity: rules of manners differ between nations and generations. In parts of Asia, for example, chopsticks have their own rules, and a sound made in eating that is rude in one country may be a compliment in another. A good guest learns the customs of his host's table.

Jesus Himself taught a lesson in table manners. Watching guests at a dinner choose the best seats, He told them to take the lowest place, so that the host might say, "Friend, go up higher" (Luke 14:10). Humility is the root of courtesy. Paul gives the rule for table talk: "Let your speech be always with grace, seasoned with salt." Grace makes speech kind; salt makes it worth hearing.

PICTURE STUDY



Breakfast under the Big Birch, Carl Larsson, 1896 · Watercolor · Nationalmuseum, Stockholm
Wikimedia Commons · Public domain

Carl Larsson painted his own family at their country house, Lilla Hyttnäs, in the village of Sundborn in Sweden. This watercolor became part of his book *Ett hem* ("A Home," 1899), which made his family's cheerful, simple way of life famous across Europe. Breakfast here is not formal, but it is clearly a shared table.

Look closely

- Count the people. Who is talking with whom? Who is serving?
- Look at the table itself. What has been set out, and how formal is it?
- Find any child. What is the child doing, and how is the child included in the meal?

Talk about it

1. Which of the three reasons for manners (health, consideration, not drawing attention) can you see being practiced, or needed, in this picture?
2. How does Larsson make an everyday family breakfast feel important?

HANDS-ON: MANNERS AUDIT AND A CONVERSATION PLAN

Use Lillian Eichler's 1921 passages in the Primary source box to build a checklist, test both knife-and-fork styles, and plan and lead the conversation at one family dinner.

You will need

- A full place setting and a food that needs cutting (chicken, meat, pancakes)
- Notebook and pen
- Index cards

Steps

1. From the Primary source, list every rule Eichler states or implies (at least five). Next to each, write the reason: health, consideration, or not drawing attention.
2. At one meal, eat the first half in the American zigzag style and the second half in the Continental style. Note which was faster, which felt more natural, and which kept your plate neater.
3. Write five open questions for a family dinner, suited to the people who will be there (for example, a grandparent, a younger sibling, a guest). Put each on an index card.
4. At the dinner, use your questions to start talk; aim to hear every person speak at least twice. Ask at least two follow-up questions.
5. Afterward, write a short report: what went well, who spoke least and why, and what you would change. Include one sentence on how Colossians 4:6 applied.

Check your work

- My checklist has at least five rules from the primary source, each with a reason.
- I tried both styles and compared them honestly.
- I prepared five open questions and led the conversation.
- My report names one thing to improve.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, explain why table manners exist, using the three reasons from this stop, and give the history of the courtesy book from Erasmus (1530) to Washington's copybook (about 1744). A parent dates and keeps the page.
2. Draw two hands holding a knife and fork, once in the American style and once in the Continental style, with arrows showing the zigzag.
3. Copy Colossians 4:6 in your best handwriting.

Did you know? George Washington's 110 rules were not his own invention: they trace back to a French Jesuit collection of 1595, which was translated into English in the 1640s. The notebook in which young Washington copied them, probably around age 14 to 16, is preserved among his papers at the Library of Congress.

Primary source. *Lillian Eichler, Book of Etiquette, Volume II (1921), "Dinners," sections "The Fork and Knife," "Table Etiquette," and "The Successful Hostess."* Project Gutenberg, ebook #7029. Separate passages; the ellipses mark omitted text.

In using the fork and knife, one can display a pleasing grace, or just the opposite—awkward clumsiness. The knife is held in the right hand and the fork in the left. When the desired morsel of food is cut, the knife is laid aside temporarily and the fork is shifted to the right hand. ... When the hands are not being used, they should rest quietly in the lap—never should the elbows be rested on the table. ... Nothing is more delightful, at the dinner table, whether formal or informal, than the interesting little chats between old friends and new acquaintances.

Go deeper. *George Washington's Rules of Civility*, edited by Moncure D. Conway (1890), with the rules and their French sources, free at Project Gutenberg (ebook #12029). George Washington's Mount Vernon website has a page on the Rules of Civility. Margaret Visser, *The Rituals of Dinner* (1991). Second video topic: "Martin Luther's house in Wittenberg."

Goes deeper in. Literature, "Courtesy and Character," and History, "Colonial America" (coming soon).

For families. Sources: Eichler (1921), Project Gutenberg #7029; Conway's edition of Washington's Rules, Project Gutenberg #12029; Erasmus, *De civilitate morum puerilium* (1530). Washington's rules are summarized, not quoted. The date of his copybook is usually given as about 1744–1745. The reason Americans adopted the zigzag style is uncertain; the stop presents the common theory as a theory. In the Primary source, Project Gutenberg prints a double hyphen where the book has a dash; it is shown here as a dash. Passing to the right is a common American convention, not a universal rule; follow your host.

PRACTICE

1. **EASY** Name the three reasons behind most table manners and give one example of each.
2. **EASY** Describe the difference between the American and Continental styles.
3. **MEDIUM** Who wrote *On Civility in Children*, when, and why was it important?
4. **MEDIUM** What did Jesus teach about choosing a seat at a feast (Luke 14), and how does it connect to manners?
5. **CHALLENGE** Eichler (1921) says elbows must never rest on the table; many modern guides allow elbows on the table between courses. Using the three reasons for manners, argue

which rule is better.

6. **CHALLENGE** Turn these closed questions into open ones and explain why the change matters: (a) “Did you have a good day?” (b) “Do you like your new job?” (c) “Was the trip fun?”

Make it a game · Thread the Conversation. Pass a ball of yarn around the table. Whoever holds it asks someone an open question, keeps hold of the end of the yarn, and tosses the ball to the person questioned. That person answers and asks someone new. After ten minutes, look at the web: has everyone been included? Is anyone left with no strand? Try again and make a web with every person connected at least twice.

Scripture. “Let your speech be alway with grace, seasoned with salt, that ye may know how ye ought to answer every man.” (Colossians 4:6, KJV)

Paul wrote to Christians in Colossae about how to speak with those outside the church. Speech “with grace” is kind and generous; speech “seasoned with salt” has flavor and substance and does not spoil. Both belong at the dinner table, where words can make a guest feel welcome or unwanted.

Practice: answers

1. Health (not double-dipping or talking with the mouth full); consideration (passing dishes, waiting for all to be served); not drawing attention to yourself (eating quietly, keeping elbows in). Other correct examples are fine.
2. American: cut with knife in right hand and fork in left, lay the knife down, switch the fork to the right hand to eat. Continental: keep the fork in the left hand (tines down) and the knife in the right throughout.
3. Erasmus of Rotterdam, in 1530. It was a short, practical Latin handbook on manners that was reprinted, translated and imitated across Europe for about two centuries, spreading the idea of “civility.”
4. Take the lowest place, so the host may invite you higher (“Friend, go up higher”), rather than taking the best seat and being sent down. Manners are rooted in humility: thinking of others first and not pushing yourself forward.
5. Model answer: The purpose of the rule is consideration (elbows take a neighbor’s space and can upset dishes) and not drawing attention (sprawling looks careless). While eating, those reasons are strong, so both guides agree: no elbows. Between courses, when plates are cleared, leaning forward with elbows on the table can show interest in conversation without crowding anyone. So the modern rule keeps the reason and relaxes the letter. A student may argue for Eichler’s stricter rule as a safer habit, provided the argument uses the reasons.
6. Sample answers: (a) “What was the best part of your day?” (b) “What is the most surprising thing about your new job?” (c) “What did you see on the trip that you want to remember?” Closed questions invite one-word answers (“Yes,” “Fine”) and end the exchange; open questions invite a story, show real interest, and give the speaker a chance to be known. That is speech “seasoned with salt.”

2.7 SERVING AND CLEARING

OBJECTIVES

- Serve a course and clear a table in the correct order, explaining the reason for each rule (offer from the left, place and remove from the right, clear in sequence).
- Use the rules of an 1894 servants' manual as a primary source and compare them with modern restaurant practice.
- Explain the place of domestic service in history and Jesus' teaching that the greatest is the one who serves.

Warm-up. At your next meal, watch how the food reaches each plate and how the table gets cleared. Who does it? In what order? Does anything get spilled, bumped or forgotten? Write three observations before you read on.

Video slot. Video coming. How to serve and clear a table: serve from the left, clear from the right; how footmen served at a Victorian dinner (a historic-house reenactment). Search approved channels (a culinary-school or hospitality-training channel, English Heritage, the National Trust, Colonial Williamsburg); preview first.

KEY TERMS

sideboard

A long cabinet or table along the dining-room wall, used for carving, holding serving dishes, and setting down plates during service.

serve from the left

A platter from which a diner helps himself is offered at his left side, so he can serve himself with his right hand.

clear from the right

Used plates are removed from the diner's right side, the side of the knife and glass, keeping the server's arm out of his way.

crumbing

Brushing crumbs from the tablecloth onto a small tray or plate before dessert, using a folded napkin or a crumb brush.

footman

A male servant in a large house who waited at table, carried dishes and answered the door, under the butler.

parlourmaid

A female servant who waited at table and kept the dining room and drawing room, common in middle-class households of the late 1800s.

CORE IDEAS

Serving and clearing are the parts of a meal that guests notice only when they go wrong: a platter offered to the wrong hand, a sleeve in the gravy, a plate whisked away from someone still eating, a stack of dirty dishes clattering at a guest's elbow. Anne Frances Springsteed's *The Expert Waitress* (1894), written to train the single maid of a middle-class American household, gives the rules in a few compact sentences (see the Primary source box). Each one has a reason.

The first pair of rules turns on the word **choice**. Anything “which admits of choice,” a platter from which the diner chooses his own portion, a bread basket, a sauce boat, is *passed* at the diner's left. That way he can lift the serving spoon and fork with his right hand, and the server's body is clear of his knife and glass. Anything “which does not admit of choice,” a plate already served or a cup of soup, is *placed* from the right. Soiled plates are removed from the right. Modern restaurant training usually puts it more simply: serve food from the left, beverages from the right, clear from the right. Practices vary, and some restaurants now serve plated food from the right; what matters is a consistent, sensible system that keeps the server's arm out of the guest's way.

The second group of rules concerns **order**. Springsteed clears “food first ... then soiled china, glass, silver, and cutlery; then clean china, glass, silver, and cutlery; then crumbs.” Food goes first because it is the bulkiest and the most likely to spill. Dirty dishes go before clean pieces because they are the unpleasant sight. Crumbs go last, so that the cloth is fresh for dessert. “Everything relating only to one course must be removed before serving another course,” so that the guest is never confused by leftover tools. And she insists that plates never be piled with china resting on silver: stacking scratches silver, chips china, and makes a noise and a sight that spoils the table. Clearing begins only when everyone has finished; the signal in American custom is the knife and fork laid side by side across the plate.

Serving at table was once a major occupation. In Victorian Britain, domestic service was the largest single employment for women, and censuses of the late 1800s counted more than a million female servants in England and Wales alone. A great house had a **butler** who ran the dining room and the wine cellar, and **footmen** who carried and served; a modest household had one maid who did everything, which is why Springsteed's rules are so practical. Service could be hard work with long hours and little freedom, and many servants left as soon as they could find factory, shop or office work. It could also be skilled, respected and secure; many servants took real pride in their craft. After the First World War, the number of servants fell steeply, and the work of serving passed to the family itself.

Family service has its own rules. At a family-style meal, dishes are passed from hand to hand, usually to the right (counterclockwise), and the person holding a heavy dish may hold it while the neighbor serves himself. When a host serves plates at the table, the guest of honor is served first and the host last. Children who clear should take two plates at a time at most, one in each hand, from the right; scrape and stack them in the kitchen, not at the table. A good server also watches: whose glass is empty, who has no butter, who is still eating.

Honest complexity: a hundred years of etiquette books disagree on small points. Some taught that the hostess is served first so guests can see how to manage an unfamiliar dish; others, the guest of honor first. Some serve plates from the left; some from the right. Wise hosts choose a system, teach it to their helpers, and use it gracefully.

Serving is not beneath anyone. At the Last Supper, the disciples argued about which of them was greatest. Jesus answered: “For whether is greater, he that sitteth at meat, or he that serveth? is not he that sitteth at meat? but I am among you as he that serveth” (Luke 22:27). That same night He washed their feet (John 13). The Lord of all took the servant’s place, and every Christian who carries a plate for another follows Him.

PICTURE STUDY



A Woman Preparing Bread and Butter for a Boy, Pieter de Hooch, c. 1660-1663 · Oil on canvas · J. Paul Getty Museum, Los Angeles
Wikimedia Commons · CC0

Pieter de Hooch painted quiet Dutch homes in Delft and Amsterdam, with checkered floors and doorways opening onto light. Here a woman prepares a simple meal, bread and butter, for a boy who seems ready to leave for school. The boy’s head is bowed and his hat is in his hand; some viewers think he is saying grace before he eats.

Look closely

- Find the woman’s hands. What is she doing, and how carefully?
- Look at the boy’s posture and hat. What does it suggest about his manners?
- Follow the open doorways. Where does the light come from, and where might the boy be going?

Talk about it

1. This is service at its simplest: one person preparing food for another. How does the painter make it dignified?
2. Compare this scene with the formal service described by Springsteed. What is the same about good serving, whether for one child or twelve guests?

Safety first. Hot dishes: use oven mitts or a folded dry towel, never a damp one, which conducts heat. Carry no more than you can hold steadily, and say “behind you” when passing behind someone. Keep pot handles turned inward. If a glass or plate breaks, step back and let an adult sweep it up.

HANDS-ON: SERVE AND CLEAR A THREE-COURSE MEAL

Act as server for a family meal of three courses (for example soup, a main course and dessert), following Springsteed’s rules in the Primary source box. Then evaluate your service with a family member as the “guest critic.”

You will need

- A table set for three courses
- Serving dishes and spoons, a bread basket
- A tray, a small plate and a folded napkin for crumbing
- Oven mitts
- Notebook

Steps

1. Before the meal, copy Springsteed’s five rules onto a card. For each, write in your own words the reason for it.
2. Course 1: place each bowl of soup from the guest’s right. Offer the bread basket at each guest’s left.
3. When all have finished, clear the soup course: food first, then soiled dishes and spoons, from the right, two at a time at most. Do not stack at the table.
4. Course 2: offer the main dish on a platter at each guest’s left, holding it low and steady while each serves himself. Then clear in Springsteed’s order and crumb the cloth.
5. Course 3: place dessert from the right.
6. After the meal, ask your guest critic to score you from 1 to 5 on each rule. Write a short paragraph on what was hardest and which rule mattered most.

Check your work

- I followed the left-for-choice, right-for-placing rule.
- I cleared in the right order and never stacked at the table.
- I crumbed the table before dessert.
- I received and recorded honest feedback.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, explain how to serve and clear a course and why each rule exists. Use at least three of Springsteed's rules and end with Luke 22:27. A parent dates and keeps the page.
2. Draw a bird's-eye diagram of a guest at a table with arrows showing where food is offered (left), placed (right), and cleared (right).
3. Draw the order of clearing as a numbered flow chart: food, soiled dishes, clean pieces, crumbs.

Did you know? In great Victorian and Edwardian houses, footmen were often chosen partly for height, and matched pairs of tall footmen were a mark of status. Footmen who waited at dinner often wore white gloves so that no fingerprint touched a plate or glass.

Primary source. *Anne Frances Springsteed, The Expert Waitress: A Manual for the Pantry, Kitchen, and Dining-Room (1894), from the rules for "Dinner."* Project Gutenberg, ebook #49202.

Everything which admits of choice must be *passed* at the left. Everything which does not admit of choice must be *placed* at the right. Soiled plates and dishes should be removed from the right. In clearing the table, food must be first removed; then soiled china, glass, silver, and cutlery; then clean china, glass, silver, and cutlery; then crumbs. Everything relating only to one course must be removed before serving another course.

Go deeper. Springsteed's whole book, free at Project Gutenberg (ebook #49202), including chapters on breakfast, luncheon, dinner and supper service. Margaret Powell, *Below Stairs* (1968), a kitchen maid's memoir of 1920s service (for older readers and parents; summarize, do not quote). The National Trust website has pages on servants' lives at many of its houses. Second video topic: "A day in the life of a Victorian footman."

Goes deeper in. Small Business & Economics, "Seven Small Businesses" (restaurant and catering), and History, "Victorian Britain" (coming soon).

For families. Sources: Springsteed (1894), Project Gutenberg #49202; census summaries for domestic service in England and Wales. Exact servant numbers vary by census year and by how servants were counted, so the stop says "more than a million" for the late 1800s. Modern restaurant conventions differ; the stop presents Springsteed's rules and the common modern version side by side. The suggestion that the boy in de Hooch's painting is saying grace is a common interpretation, not a certainty. Picture: J. Paul Getty Museum.

PRACTICE

1. **EASY** From which side is a platter offered, and why?

2. **EASY** From which side are soiled plates removed?
3. **MEDIUM** List Springsteed's order for clearing the table.
4. **MEDIUM** What signal in American custom tells the server a diner has finished, and why should no plate be cleared before everyone at the table is done?
5. **CHALLENGE** Springsteed distinguishes things that "admit of choice" from things that do not. Classify each and say how it is served: (a) a platter of sliced roast beef; (b) a bowl of soup already ladled; (c) a basket of rolls; (d) a dessert plate with a slice of pie on it; (e) a gravy boat.
6. **CHALLENGE** Explain the reasoning behind Springsteed's clearing order. Why food first, why soiled before clean, and why crumbs last? Then explain why stacking plates at the table breaks her other rule about china and silver.

Make it a game • Waiter, Waiter. Three or four "guests" sit at a table with empty plates. The "server" is given cards naming items (soup, rolls, gravy, pie, a used plate) and must serve or clear each from the correct side, saying aloud "passed" or "placed." The guests call out "Left!" or "Right!" if the server goes wrong. Each correct move scores a point; switch servers after ten moves. Bonus point for crumbing without dropping a crumb.

Scripture. "For whether is greater, he that sitteth at meat, or he that serveth? is not he that sitteth at meat? but I am among you as he that serveth." (Luke 22:27, KJV)

Jesus said this at the Last Supper, when His disciples were arguing about rank. By the world's measure the one seated is greater than the one serving; Christ, the true Master, chose to serve. To carry a plate, clear a table or fill a glass for someone else is to stand where He stood.

Practice: answers

1. From the diner's left, so he can serve himself with his right hand and the server's arm stays clear of his knife and glass.
2. From the right.
3. Food first; then soiled china, glass, silver and cutlery; then clean china, glass, silver and cutlery; then crumbs.
4. The knife and fork laid side by side across the plate. Clearing early hurries slower eaters and makes them feel conspicuous; waiting keeps the table together.
5. (a) Admits of choice: passed at the left. (b) No choice: placed at the right. (c) Choice: passed at the left. (d) No choice: placed at the right. (e) Choice (the diner decides whether and how much): passed at the left.
6. Food first: it is the bulkiest, the most likely to spill, and the least pleasant to leave in view. Soiled before clean: dirty dishes are the unsightly part, and clean pieces can wait without spoiling the table. Crumbs last: everything above the cloth must be gone before the cloth can be brushed, leaving it fresh for the next course. Stacking at the table rests china on silver (forks and knives left on plates), which scratches silver and chips china; it also makes noise and an ugly sight at the guest's elbow.

2.8 TEA TIME: THE HISTORY OF AFTERNOON TEA

OBJECTIVES

- Trace tea from China to Britain and America with key dates (1658, 1662, 1706, 1773, 1784, about 1840) and explain the causes behind each change.
- Distinguish afternoon tea, high tea and cream tea, and explain why afternoon tea arose in the 1840s.
- Host a small afternoon tea, brewing tea correctly, and analyze the opening of Henry James's *The Portrait of a Lady* (1881) as a primary source.

Warm-up. Look at a box or tin of tea in your kitchen (or at a store). Where was it grown? Find that country on a map, then find Britain. Estimate how far the tea traveled. Why do you think a drink from so far away became the national drink of an island nation that cannot grow it?

Video slot. Video coming. The history of afternoon tea and the Duchess of Bedford; how tea came to England; the Boston Tea Party (history, not reenactment entertainment). Search approved channels (Historic Royal Palaces, English Heritage, the British Museum, the Boston Tea Party Ships & Museum, a museum channel); preview first.

KEY TERMS

Camellia sinensis

The tea plant, an evergreen shrub native to China and nearby regions. Black, green and oolong teas all come from its leaves, processed differently.

afternoon tea

A light meal of tea, sandwiches, scones and cakes served in the late afternoon, about four or five o'clock, popularized in England in the 1840s.

high tea

In Britain, a substantial evening meal with tea, meat, pies, bread and cake, eaten by working families after the day's work. Not a fancier version of afternoon tea.

East India Company

The English (later British) trading company, chartered in 1600, that held the monopoly on importing tea from Asia to Britain for most of two centuries.

Commutation Act

The British law of 1784 that cut the tax on tea from about 119 percent to 12.5 percent, ending large-scale tea smuggling and making tea affordable to ordinary families.

Boston Tea Party

The protest of 16 December 1773, in which colonists destroyed 342 chests of East India Company tea in Boston Harbor in opposition to the Tea Act and taxation by Parliament.

CORE IDEAS

Tea is made from the leaves of **Camellia sinensis**, a shrub native to China, where it had been drunk for many centuries before Europeans tasted it. Portuguese and Dutch traders brought tea to Europe in the early 1600s. In England, a London coffee house advertised it for sale in 1658, and on 25 September 1660 the diarist Samuel Pepys recorded that he sent for a cup of “tee,” which he called a China drink and had never tasted before. Tea was then an exotic and very expensive medicine-and-luxury.

Royalty made it fashionable. In 1662 King Charles II married the Portuguese princess Catherine of Braganza, who had grown up drinking tea and made it the drink of the court. In 1706 Thomas Twining opened Tom’s Coffee House in the Strand, London, and soon specialized in tea; the firm still trades at the same address. Yet for most of the 1700s tea was heavily taxed, and by the 1780s the duty stood at about 119 percent. The result was enormous smuggling: much of the tea drunk in Britain had never paid duty. In 1784 Prime Minister William Pitt the Younger, advised by Richard Twining, passed the **Commutation Act**, cutting the tax to 12.5 percent. Legal imports more than tripled in a year, smuggling collapsed, and tea became an everyday drink for every class.

In the American colonies tea was popular too, and it became tangled with politics. Parliament taxed it under the Townshend duties of 1767, and the Tea Act of 1773 gave the **East India Company** special rights to sell tea in America while keeping a tax colonists had not voted for. On 16 December 1773, men disguised as Mohawks boarded three ships in Boston Harbor and dumped 342 chests of tea into the water. Parliament responded with the Coercive Acts, and the road to the War of Independence grew shorter. Many patriotic Americans switched to coffee, and the United States has remained a coffee-drinking nation ever since.

Afternoon tea was born of a change in the clock. In the 1700s the fashionable dinner hour was mid-afternoon; by the 1840s it had moved to seven or eight in the evening, leaving a long gap after a light midday luncheon. According to the traditional account, Anna Russell, the seventh Duchess of Bedford and a friend and lady of the bedchamber to Queen Victoria, began around 1840 to ask for tea, bread and butter and cake in her room at Woburn Abbey in the late afternoon to stave off the “sinking feeling” of the long afternoon, as the story is usually told. She invited friends, carried the habit to London, and it spread. The story may simplify a broader change, but by the later 1800s the drawing-room tea at four or five o’clock was firmly established, and Queen Victoria herself gave large tea receptions.

The terms are often confused. **Afternoon tea** (sometimes called “low tea,” because it was served at low tables in the drawing room) was light: thin sandwiches, perhaps of cucumber, scones, small cakes. **High tea** was the evening meal of working families, eaten at the kitchen or dining table after a day in the mill or field, with meat, pies, cheese, bread and strong tea; the reason for the name “high” is often said to be the high table, but that is not certain. A **cream tea** is tea with scones, clotted cream and jam, associated with Devon and Cornwall, whose people still debate whether cream or jam goes on first.

Honest complexity: the British cup of tea had costs far from the drawing room. For decades Britain bought its tea from China and paid largely in silver; to reduce that drain, British merchants sold opium grown in India into China against Chinese law, and two Opium Wars followed (1839-1842 and 1856-1860). Britain then planted tea in India itself. Assam tea was developed commercially from the 1830s, and the botanist Robert Fortune smuggled tea plants and seeds out of China between 1848 and 1851. On many Assam plantations, laborers recruited under long indentures worked in harsh conditions with high death rates. In Ceylon (Sri Lanka), tea replaced coffee after a leaf disease destroyed the coffee estates from 1869. A Christian historian names these wrongs plainly while still enjoying the gift of tea with thanksgiving.

Making a good pot is simple. Warm the teapot with hot water and pour it out. Use about one teaspoon of loose black tea per cup (the old rule adds “one for the pot”), pour on water just off the boil, and steep three to five minutes; green tea wants cooler water and a shorter steep. A teapot, a few cups and a plate of bread and butter make one of the cheapest and kindest forms of hospitality there is: “Use hospitality one to another without grudging.”

PICTURE STUDY



The Tea, Mary Cassatt, 1879-1880 · Oil on canvas · Museum of Fine Arts, Boston
Wikimedia Commons · Public domain

Mary Cassatt was an American painter from Pennsylvania who lived in Paris and exhibited with the Impressionists. This painting, also called *Five O’Clock Tea*, shows a hostess and a guest at the hour when Parisian and London ladies received visitors. The silver tea service in the foreground is painted larger and brighter than anything else in the picture.

Look closely

- Find the hostess and the guest. How can you tell which is which?

- Look at the silver tea service. What reflections can you see in it? Why might Cassatt give it so much space?
- Look at the guest's gloves and hat. What do they suggest about the length of her visit?

Talk about it

1. How does this painting show afternoon tea as a time for calling and conversation rather than a full meal?
2. Compare it with the first paragraph of *The Portrait of a Lady*. What do the painter and the novelist both find “delightful” in the hour of tea?

Safety first. Boiling water causes serious burns. An adult should supervise the kettle. Pour away from yourself, keep the teapot handle turned toward you and its spout away from people, and set hot pots on a trivet or tray, never near the table edge or within reach of small children.

HANDS-ON: HOST AN AFTERNOON TEA

Plan, cost and host a small afternoon tea for your family or a few guests. Brew a proper pot, serve simple food, and lead a conversation about the history of tea. Use the opening of Henry James's novel in the Primary source box as a reading at the table.

You will need

- A teapot (or a saucepan and strainer), kettle, cups and saucers
- Loose black tea or tea bags; milk, sugar and lemon
- Bread, butter, cucumber, and a simple scone or cake recipe
- A tray, a small cloth, napkins and a small centerpiece (see Stop B4)
- Notebook and pencil for a cost sheet

Steps

1. Plan a menu: one kind of tea, one kind of sandwich, one scone or cake. Write a shopping list with prices and work out the cost per guest.
2. Write a short invitation for four o'clock.
3. Set a tea table or tray with cups, saucers, spoons, plates, napkins and a small centerpiece.
4. Brew the tea: warm the pot, add one teaspoon per cup, pour on water just off the boil, steep three to five minutes, then pour through a strainer.
5. Serve your guests first, offering milk and sugar. Read the Henry James passage aloud and ask each guest what makes this hour “agreeable.”
6. Afterward, record the real cost per guest and one thing you would change.

Check your work

- My cost sheet gives a total and a cost per guest.

- I brewed the tea correctly and safely.
- I set the table and served guests before myself.
- I read the primary source aloud and led a short discussion.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, tell how tea became Britain’s national drink and how afternoon tea began. Use at least four dates from this stop and explain at least two causes. A parent dates and keeps the page.
2. Draw a world map showing tea’s route from China (and later India and Ceylon) to London and Boston, labeled with dates.
3. Draw a three-tier tea stand and label what goes on each tier: sandwiches at the bottom, scones in the middle, cakes on top.

Did you know? After the Commutation Act of 1784, retained tea imports into Britain rose from about 5 million pounds in 1784 to about 16 million pounds in 1785, more than three times as much in one year. To make up the lost revenue, Parliament raised the window tax, so in a sense Britons paid for cheap tea with their windows.

Primary source. Henry James, *The Portrait of a Lady* (1881), Chapter I, opening paragraph. Project Gutenberg, ebook #2833.

Under certain circumstances there are few hours in life more agreeable than the hour dedicated to the ceremony known as afternoon tea. There are circumstances in which, whether you partake of the tea or not—some people of course never do,—the situation is in itself delightful. Those that I have in mind in beginning to unfold this simple history offered an admirable setting to an innocent pastime.

Go deeper. Jane Pettigrew, *A Social History of Tea* (2001), by a leading tea historian (for older readers and parents). Sarah Rose, *For All the Tea in China* (2010), on Robert Fortune. The Boston Tea Party Ships & Museum website and the Massachusetts Historical Society on 16 December 1773. Samuel Pepys’s diary entry for 25 September 1660 is free at Project Gutenberg. Second video topic: “How black tea is processed: withering, rolling, oxidizing, drying.”

Goes deeper in. History, “The American Revolution” and “Victorian Britain,” and Geography, “India and Sri Lanka” (coming soon).

For families. Sources: Henry James, Project Gutenberg #2833; Commutation Act figures (duty about 119% cut to 12.5%; imports 4,962,000 lb in 1784 and 16,307,000 lb in 1785) from standard histories; Pepys’s diary, 25 September 1660 (paraphrased, since printed editions differ slightly in spelling and punctuation); Twinings company history. The Duchess of Bedford story is traditional and hard to verify in detail, so the stop presents it as the traditional account. The origin of the name “high tea” is uncertain. In the James passage, Project Gutenberg prints double hyphens where the book has dashes; they are

shown here as dashes. The novel is listed only for its opening; the rest of the book is adult reading. The stop names the opium trade and plantation labor plainly as historical wrongs without modern slogans.

PRACTICE

1. **EASY** What plant does tea come from, and where is it native?
2. **EASY** Who made tea fashionable at the English court, and in what year did she marry Charles II?
3. **MEDIUM** Explain the difference between afternoon tea and high tea.
4. **MEDIUM** Why did afternoon tea begin in the 1840s rather than a century earlier?
5. **CHALLENGE** In 1784 legal tea imports were about 4,962,000 pounds; in 1785, about 16,307,000 pounds. By what factor did they rise? Explain why most of that increase was probably not new tea drinking.
6. **CHALLENGE** In the Primary source, Henry James calls afternoon tea a “ceremony” and an “innocent pastime,” and says the situation is delightful “whether you partake of the tea or not.” What does he think is the real attraction of the hour? Support your answer with the text and connect it to hospitality.

Make it a game • Tea Timeline. Write eight events on cards: tea first sold in London (1658), Pepys’s first cup (1660), Catherine of Braganza marries Charles II (1662), Twining opens his shop (1706), Boston Tea Party (1773), Commutation Act (1784), afternoon tea at Woburn Abbey (about 1840), Robert Fortune’s tea journey (1848–1851). Shuffle the cards. Players race to lay them in order without looking at dates on the back. Score one point per card in the right place; best of three rounds pours the tea.

Scripture. “Use hospitality one to another without grudging.” (1 Peter 4:9, KJV)

Peter wrote to scattered and often persecuted Christians, for whom opening a home was costly and sometimes dangerous. He asked them to do it gladly, without complaining. A pot of tea and a plate of bread and butter are within reach of almost any household, and offered cheerfully they keep this command.

Practice: answers

1. *Camellia sinensis*, an evergreen shrub native to China and nearby regions.
2. Catherine of Braganza, the Portuguese princess, in 1662.
3. Afternoon tea was a light, fashionable refreshment at about four or five o’clock, served in the drawing room: tea, thin sandwiches, scones and cakes. High tea was the substantial evening meal of working families after the day’s work, with meat, pies, bread and tea, eaten at the table.
4. Because the fashionable dinner hour had moved from mid-afternoon in the 1700s to seven or eight in the evening, leaving a long hungry gap after luncheon; a light meal at about four or five filled it. (Cheap, legal tea after 1784 also made the habit affordable.)
5. $16,307,000 \div 4,962,000 \approx 3.3$, so imports rose about 3.3 times. Most of the rise was tea that had previously been smuggled: once the tax fell from about 119% to 12.5%, smuggling was no

longer profitable, so tea that had come in illegally now came in legally and was counted. People did not suddenly drink three times as much tea in one year.

6. James suggests the attraction is not the drink but the setting and the company: the hour is “dedicated” (set apart), a “ceremony” with its own order, and it is delightful even to those who never drink the tea, so the pleasure lies in leisure, conversation and being together. That is the heart of hospitality: making time and a place for others. (Strong answers notice “ceremony” implies form and ritual, and “innocent” implies a simple, wholesome pleasure.)

TRAIL 2 BADGE QUIZ

The badge quizzes are optional and may be taken open-notebook. Answer in complete sentences; challenge items need reasons, not just facts. Four of five right on the first quiz earns the first badge, and five of six on the second earns the second. Badges and the certificate are earned by completing the stops, not by scores.

Badge quiz 1 (Stops 1-5)

1. Name the three principles behind a place setting and apply each to one placement.
2. Explain how service à la russe, introduced to Paris by Prince Kurakin in 1810, both emptied the dinner table and filled each place with more flatware.
3. What is the first known book on napkin folding, and what did Springsteed say about fancy folds in 1894? Then: a 24-inch square napkin is folded in half twice; give its dimensions and number of layers.
4. Give two rules for a dinner-table centerpiece and two steps in conditioning cut flowers, with reasons.
5. In Acts 27, what did Paul do before the shipwreck, and why was his grace an act of witness?

Badge quiz 2 (Stops 6-8)

6. Describe the American and Continental styles of using knife and fork, and name the courtesy book Erasmus published in 1530.
7. Turn the closed question "Did you like the trip?" into an open one, and explain from Colossians 4:6 why good table conversation matters.
8. According to Springsteed, what is passed at the left, what is placed at the right, and in what order is the table cleared?
9. What did the Commutation Act of 1784 do, and why did legal tea imports more than triple the next year?
10. Distinguish afternoon tea from high tea, and explain why afternoon tea arose around 1840.
11. Quote or paraphrase Luke 22:27 and explain how it applies to serving at table.

TRAIL CERTIFICATE: A TABLE SET AND DEFENDED: TRAIL B PORTFOLIO

Set a full table for a real family meal or guest dinner of at least three courses, with a centerpiece you made (Stop B4) and napkins you folded (Stop B3). Photograph it from above and from a seated guest's eye level.

Print or draw the photograph and label every piece. Beside it, write a one-page defense explaining each placement by handedness, order of use or safety, and citing at least two primary sources from the trail (Springsteed, Eichler, Acts 27 or Henry James).

Add the menu card, the grace you used (Stop B5), your conversation questions (Stop B6), and a short reflection on how the meal went and what you would change. Gather all eight narration pages behind it. A parent reviews the portfolio and signs the Trail B certificate.

- **Accuracy:** Every piece is correctly placed for the stated menu; the setting follows the outside-in rule and the knife faces the plate.
- **Reasoning:** The written defense gives a reason for every placement and cites at least two primary sources accurately.
- **Hospitality:** The meal included a centerpiece, folded napkins, grace and planned conversation, and guests were served before the host.
- **Presentation:** Photographs and labels are clear, the narration pages are complete and dated, and the reflection is honest about what could improve.

Answer key

1. Handedness (the knife is on the right because most people cut with the right hand); order of use (pieces are laid outside-in, so the first-course fork is farthest out); safety and courtesy (the knife's blade faces the plate).
2. Serving dishes moved to the sideboard and food came round course by course, so the center of the table was free for decoration; but each course now needed its own clean tools, so specialized forks, knives and spoons multiplied.
3. Mattia Giegher's *Li tre trattati* (Padua, 1629). Springsteed wrote that napkins must be folded simply, not in fanciful shapes such as fans. The folded napkin is 12 by 12 inches, with 4 layers.
4. Rules (any two): keep it below conversation height (about 12 inches) so guests can see each other; avoid strong scents that overpower food; keep poisonous plants off the table; proportion about 1½-2 times the container. Conditioning (any two): strip leaves below the waterline (prevents rot and bacteria); recut stems under water or at a slant (removes air blocks, increases drinking surface); cut in cool morning or evening; change water often.
5. After fourteen days of storm he urged the 276 people aboard to eat, promised that none would perish, took bread and gave thanks to God "in presence of them all," and began to eat. It was a public confession of trust in God before pagan sailors, soldiers and prisoners, and it gave them courage.
6. American: cut, lay the knife down, switch the fork to the right hand to eat. Continental: fork stays in the left hand, tines down, knife in the right. Erasmus: *De civilitate morum puerilium* ("On Civility in Children").
7. For example: "What did you see on the trip that you want to remember?" Open questions invite a story and show real interest. Colossians 4:6 asks that speech be "always with grace, seasoned with salt": kind and worth hearing, so that every person at the table is welcomed and included.
8. Anything that admits of choice (a platter, bread basket, gravy boat) is passed at the left; anything that does not (a filled plate or soup bowl) is placed at the right; soiled plates are removed from the right. Clear food first, then soiled china, glass, silver and cutlery, then clean pieces, then crumbs.
9. It cut the tax on tea from about 119% to 12.5%. Smuggling stopped being profitable, so tea that had come in illegally was now imported legally and counted; tea also became cheap enough for every class.
10. Afternoon tea is a light refreshment at about four or five o'clock (tea, sandwiches, scones, cakes); high tea is the substantial evening meal of working families. Afternoon tea arose because the fashionable dinner hour had moved to seven or eight in the evening, leaving a long gap after luncheon; the Duchess of Bedford is traditionally credited with starting the custom.

11. "For whether is greater, he that sitteth at meat, or he that serveth? ... but I am among you as he that serveth." By worldly measure the diner is greater than the server, but Jesus took the servant's place; serving others at table follows His example and is honorable, not beneath anyone.

HOSPITALITY AND HOME TRAIL C: HOSTING AND MANNERS

The third trail of the Hospitality and Home track asks what hospitality is and how to practice it well. Students begin with the Bible's word *philoxenia*, "love of strangers," in Romans 12 and Hebrews 13. They study Abraham's welcome at Mamre and Jesus' gentle correction of Martha. Then they learn the practical arts of the host: invitations, the welcome at the door, introductions and names, and thank-you notes. The trail ends with a real party, planned, budgeted, hosted and reviewed from start to finish.

This is the  **Expert** level, for students about 14 and up. Each stop takes 35 to 50 minutes and is read independently. It has high-school-level reading, real numbers to work, and a primary source. Six come from the King James Version, one from the Rule of St. Benedict and one from Emily Post's *Etiquette* of 1922, both copied from Project Gutenberg. Every stop includes a written narration paragraph for the parent to keep, six practice problems with at least two challenge problems, a "Go deeper" list and a picture study of a public-domain painting, from Rublev and Vermeer to Rembrandt and Bruegel. Each stop adds a page to the student's **Hospitality notebook** in the Field Notebook. Stops stand alone, but Stop C8 draws on all the others and is best done last.

Five stops earn the **Hospitality Expert badge, part 1**; eight stops earn part 2 and the **Trail C certificate**. The badge quizzes below are optional review. Badges are earned by doing the stops.

BEFORE YOU BEGIN

- Read a two-page nonfiction passage or a chapter of Scripture independently and summarize it in a paragraph.
- Work with fractions, percentages, money and elapsed time (a calculator is allowed).

MASTERY CHECKLIST

- ☐ I can explain what Scripture means by hospitality, using Romans 12:13, Hebrews 13:2, Genesis 18 and Luke 10:38-42, and name its sensible limits.
- ☐ I can write a complete formal and informal invitation and a specific, honest thank-you note.
- ☐ I can welcome a guest at the door, make a correct introduction and use proven methods to remember names.
- ☐ I can read a primary source on hospitality, from Scripture, Benedict or Emily Post, and say what is a lasting principle and what is a custom of its time.
- ☐ I have planned, budgeted, hosted and reviewed a real small party, and written eight narration paragraphs.

GO DEEPER: BOOKS, MUSEUM PAGES AND RESOURCES

- **Project Gutenberg** (<https://www.gutenberg.org>): Free full texts of the trail's non-biblical primary sources: *St. Benedict's Rule for Monasteries*, translated by Leonard J. Doyle (#50040), and Emily Post, *Etiquette* (1922) (#14314).
- **Bible Gateway (King James Version)** (<https://www.biblegateway.com>): For looking up and comparing the KJV passages used on every stop.
- **Smithsonian National Postal Museum** (<https://postalmuseum.si.edu>): Exhibits on the history of letters and mail, for Stops C4 and C7.
- **The Phillips Collection** (<https://www.phillipscollection.org>): Pages on Renoir's *Luncheon of the Boating Party* identifying the people in it, for Stop C6.
- **Google Arts & Culture** (<https://artsandculture.google.com>): Zoomable images of several of the trail's paintings, including Vermeer's *Christ in the House of Martha and Mary* and Bruegel's *The Peasant Wedding*.
- **Your public library** (<https://www.worldcat.org>): Look for Alexander Strauch, *The Hospitality Commands*, and a modern edition of Emily Post's *Etiquette* to compare with the 1922 text.

3.1 WHAT HOSPITALITY MEANS

OBJECTIVES

- Define hospitality from its Greek and Latin roots and explain how the New Testament uses the word.
- Read Romans 12:9-13 as a primary source and show how hospitality fits Paul's larger picture of love in action.
- Explain why hospitality mattered so much in the ancient world and in the early church, and name its sensible limits.

Warm-up. Write down the last three times someone welcomed you into their home or welcomed a guest into yours. For each, list one thing that made the visit feel welcoming and one thing that cost the host something (time, money, work or comfort). Keep the list; you will use it in the narration.

Video slot. Video coming. Christian hospitality in the early church; travel and inns in the Roman world; the meaning of Romans 12:13 and Hebrews 13:2. Search approved channels (Ligonier Ministries, The National Gallery, Khan Academy Smarthistory); preview first.

KEY TERMS

hospitality

The generous welcome and care of guests, especially strangers. In the New Testament the Greek word is *philoxenia*, "love of strangers."

hospes

A Latin word that meant both "host" and "guest." From it come *hospitality*, *host*, *hostel*, *hospice* and *hospital*.

entertain

In the King James Version, to receive someone and provide for him, as a host does for a guest. It does not mean "amuse."

stranger

In Scripture, a person away from his own people or home: a traveler, a foreigner or a sojourner who had no one to take him in.

given to

In Romans 12:13, a translation of a Greek verb meaning "pursuing" or "chasing after." Paul tells Christians to go looking for chances to be hospitable.

saints

In Paul's letters, all believers in Christ, "set apart" for God; not only famous or especially holy Christians.

CORE IDEAS

Most people think of hospitality as having friends over for dinner. Scripture means something larger and harder. The Greek word in Romans 12:13 and Hebrews 13:2 is **philoxenia**, built from *philos* (“loving”) and *xenos* (“stranger” or “foreigner”). Hospitality, in the Bible’s sense, is love aimed first at the person who has no claim on you. The Latin word **hospes** shows the same idea from another side, because it meant both “host” and “guest.” The two belong together. From that one root English later took *host*, *hostel*, *hospice* and *hospital*. Medieval hospitals began as houses where travelers, the poor and the sick were taken in.

Hospitality mattered so much in the ancient world because travel was dangerous and lodging was poor. Roman roads were good, but inns had a bad name for dirt, theft and immoral company. A traveler without friends in a town might have nowhere safe to sleep. So the duty to receive strangers ran through the ancient Near East and the Greek world alike. In the Law of Moses, God reminded Israel to love the stranger, “for ye were strangers in the land of Egypt” (Deuteronomy 10:19). Israel was to remember its own homelessness and be kind to the homeless.

Paul wrote Romans around AD 57, probably from Corinth, to a church he had not yet visited and hoped would help him on to Spain. Read the primary source below. In chapter 12 he turns from teaching to practice, and the list moves quickly: sincere love, hatred of evil, brotherly affection, diligence, hope, patience, prayer, generosity. Then come the words “given to hospitality.” The verb behind “given to” means **pursuing**. It is the same word Paul uses elsewhere for persecuting. A Christian should not merely accept guests who show up. He should go after chances to welcome people. Notice also that hospitality sits right beside “distributing to the necessity of saints.” Welcoming people into the home is one way of meeting real needs.

Hebrews 13:2 adds a reason: “for thereby some have **entertained** angels unawares.” The writer is almost certainly thinking of Abraham, who fed three visitors under the trees at Mamre (Genesis 18), and of Lot, who took two angels into his house at Sodom (Genesis 19). Neither man knew at first who his guests were. The point is not that every visitor is secretly an angel. The point is that you do not know what God is doing through the person at your door. Jesus made the same lesson sharper: “I was a stranger, and ye took me in” (Matthew 25:35). Kindness to the least of His people is kindness to Him.

The early church took this seriously, and the numbers of travelers made it necessary. Apostles, teachers and ordinary believers moved constantly between cities. They stayed in Christian homes, and those homes were also where churches met. Lydia’s house at Philippi, Priscilla and Aquila’s house at Rome and Gaius’s house at Corinth are named in the New Testament. Peter told believers to “use hospitality one to another without grudging” (1 Peter 4:9). Three centuries later, the pagan emperor Julian, who tried to revive the old gods, complained in a letter that the Christians cared for strangers and the poor, even pagan ones, better than the temples did. A hostile witness is strong evidence.

Here is the honest complexity. Biblical hospitality had sensible limits. The apostle John told one church not to receive a teacher who denied Christ (2 John 10), because hosting him would help his work. An early Christian handbook called the *Didache* told churches that a traveling teacher should stay a day or two, and that one who wanted to stay three days, or asked for money, was a false prophet. Paul also wrote that anyone who would not work should not eat (2 Thessalonians 3:10). Hospitality is generous, but it is not foolish. A family must still protect its children, keep its home safe and use wisdom with strangers. Generosity and good judgment are meant to work together.

Hospitality is also more than skill. The rest of this trail teaches invitations, greetings, introductions and thank-you notes, and those skills are good gifts. But a perfect table set in a proud spirit misses the point, and a plain supper given gladly keeps it. Christians welcome others because God first welcomed them. They were once “strangers and foreigners,” Paul writes in Ephesians 2:19, and are now “of the household of God.”

PICTURE STUDY



Supper at Emmaus, Michelangelo Merisi da Caravaggio, 1601 · Oil and tempera on canvas · The National Gallery, London

Wikimedia Commons · Public domain

On the road to Emmaus, two disciples met a stranger, talked with him for miles, and then urged him to stay with them because evening was coming (Luke 24:13–31). At supper he broke the bread, and they knew him: it was the risen Christ. Caravaggio painted the very moment of recognition. Their invitation to a stranger became the place where they met their Lord, which is exactly what Hebrews 13:2 describes.

Look closely

- Find the two disciples. How does each one show his surprise with his arms or his chair?
- Find the innkeeper standing at the left. Does he understand what is happening? How can you tell?
- Find the basket of fruit at the edge of the table. Why might Caravaggio have made it look as if it is about to fall into your space?

Talk about it

1. The disciples did not know who their guest was until the meal. How does this painting illustrate Hebrews 13:2?
2. Caravaggio painted Christ without a beard, which surprised viewers. Luke says the disciples' "eyes were holden" at first. How might the painter be helping us feel that they did not at first recognize Him?

HANDS-ON: A HOSPITALITY WORD STUDY AND HOUSEHOLD PLAN

Use the primary source and the key terms to study what Scripture means by hospitality, then turn the study into a short, practical plan for your own family.

You will need

- The primary source in this stop (Romans 12:9-13)
- A KJV Bible
- Paper and pen, or a page in the Field Notebook

Steps

1. Copy Romans 12:9-13 by hand. Circle every command (for example, "abhor," "cleave").
2. Sort the commands into three columns: what love does toward God, toward fellow believers and toward outsiders. Which column does "given to hospitality" belong in? Could it belong in more than one?
3. Look up Deuteronomy 10:19, Matthew 25:35, 1 Peter 4:9 and Hebrews 13:2. For each, write one sentence: what does this verse add to Romans 12:13?
4. With a parent, list three people or kinds of people your family could welcome in the next two months (a new family at church, a widow, a visiting relative, a lonely neighbor).
5. For one of them, write a short plan: when, what you would serve, and what you would do together. Add one sensible safety rule your family follows with guests.

Check your work

- My sorting shows that hospitality is a form of love, not only a social skill.
- Each cross-reference has its own sentence explaining what it adds.
- My family plan names a real person or group and is simple enough to do.

FIELD NOTEBOOK

1. **Hospitality notebook, page 1.** Write the words *philoxenia* and *hospes* and draw a word tree showing the English words that grew from *hospes*.
2. Draw a simple map of the eastern Mediterranean and mark Corinth, Rome and Philippi, three cities where New Testament Christians opened their homes.
3. **Narration.** Write one paragraph explaining what the Bible means by hospitality and why it is harder and larger than “having friends over.” Use at least one verse and one example from your warm-up list. A parent keeps this paragraph.

Did you know? The word *xenos* in *philoxenia* also gives English the word *xenophobia*, “fear of strangers.” Scripture calls Christians to the opposite. And the word *hospital* first meant a guesthouse: the Knights Hospitaller of the Middle Ages began by running a hospice for pilgrims in Jerusalem.

Primary source. *Romans 12:9-13, King James Version (1611):*

9 Let love be without dissimulation. Abhor that which is evil; cleave to that which is good.

10 Be kindly affectioned one to another with brotherly love; in honour preferring one another;

11 Not slothful in business; fervent in spirit; serving the Lord;

12 Rejoicing in hope; patient in tribulation; continuing instant in prayer;

13 Distributing to the necessity of saints; given to hospitality.

Go deeper.

- Alexander Strauch, *The Hospitality Commands* (1993): a short book on the New Testament words for hospitality.
- Rosaria Butterfield, *The Gospel Comes with a House Key* (2018): one family’s practice of daily hospitality (parents may wish to preview).
- The National Gallery, London, collection page for Caravaggio’s *Supper at Emmaus* (nationalgallery.org.uk).
- Second video topic: “Roman roads, inns and travel in the time of Paul” (preview first).

Goes deeper in. History, “The Early Church in the Roman World,” and Literature, “Reading the Epistles” (coming soon).

For families. Sources: KJV text of Romans 12:9–13, Hebrews 13:2 and the verses cited; standard Greek lexicons for *philoxenia* and *diōkō* (“pursue”); the *Didache*, chapter 11; Julian’s letter to Arsacius (c. AD 362), summarized rather than quoted. The date of Romans (about AD 57) is the usual estimate. The stop names limits on hospitality (2 John 10, family safety) so students do not mistake generosity for naivety; talk together about your own household rules for guests.

PRACTICE

1. **EASY** What does the Greek word *philoxenia* literally mean?
2. **EASY** In the KJV, what does “entertain” mean in Hebrews 13:2?
3. **MEDIUM** Name the two Old Testament people Hebrews 13:2 most likely has in mind, and give the chapters.
4. **MEDIUM** Why was hospitality especially important for travelers in the Roman world?
5. **CHALLENGE** The verb translated “given to” in Romans 12:13 means “pursuing.” Using the primary source, explain how that changes the meaning of the command, and show how verses 10 and 13 fit together.
6. **CHALLENGE** A classmate says, “If the Bible commands hospitality to strangers, Christians should let anyone stay in their house for as long as they like.” Write a careful three- or four-sentence reply using at least two sources from this stop.

Make it a game • Root Hunt. Set a timer for three minutes. Players write as many English words as they can that come from *hospes* (host, hostess, hostel, hotel, hospital, hospice, hospitality, hospitable) or from *xenos* (xenophobia, xenon, philoxenia). Each correct word scores a point; a parent with a dictionary is the judge. For a bonus point, use one of your words in a sentence about welcoming a guest.

Scripture. “Let brotherly love continue. Be not forgetful to entertain strangers: for thereby some have entertained angels unawares.” (Hebrews 13:1–2, KJV)

The writer joins love for fellow believers (verse 1) to love for strangers (verse 2). Both flow from the same source: God’s love for us, who were once strangers to Him.

Practice: answers

1. “Love of strangers” (from *philos*, loving, and *xenos*, stranger).
2. To receive a guest and provide for him, as a host does; not to amuse.
3. Abraham, who fed three visitors at Mamre (Genesis 18), and Lot, who took two angels into his house at Sodom (Genesis 19).
4. Travel was dangerous and inns had a bad reputation for dirt, theft and immoral company, so a traveler needed trustworthy people to take him in. Christian teachers and believers traveled often and relied on Christian homes, which were also where churches met.
5. “Pursuing” means Christians should actively seek out chances to welcome others, not just respond when someone shows up. Verse 10 calls for brotherly love that prefers others in honour; verse 13 shows two concrete ways to do it: meeting other believers’ needs and opening the home. Hospitality is the practical form of the love described in verses 9–10.
6. Scripture really does call Christians to welcome strangers generously (Romans 12:13; Hebrews 13:2). But it also sets limits: John told a church not to receive a teacher who denied Christ (2 John 10), and the early *Didache* warned that a traveling teacher who stayed more than two days or asked for money was false. Paul said a man who would not work should not eat (2 Thessalonians 3:10). So biblical hospitality is generous and active, but it uses wisdom and protects the household.

3.2 ABRAHAM WELCOMES THREE VISITORS

OBJECTIVES

- Read Genesis 18:1–8 closely and identify every action Abraham takes as a host.
- Estimate the size of Abraham’s meal using ancient measures and modern arithmetic.
- Explain how Christians have understood the visitors, and how the story shapes the Bible’s teaching on hospitality.

Warm-up. Read Genesis 18:1–8 aloud once, slowly. Without looking back, write down everything you remember Abraham doing. Then read it again and check your list. What did you miss on the first reading?

Video slot. Video coming. Abraham at Mamre (Genesis 18); life in a herding family’s tent in the ancient Near East; Rublev’s Trinity icon. Search approved channels (Ligonier Ministries, The State Tretyakov Gallery, Khan Academy Smarthistory); preview first.

KEY TERMS

Mamre

A place of great trees near Hebron, in the hill country of Canaan, where Abraham pitched his tents (Genesis 13:18). The KJV calls it “the plains of Mamre”; many translations say “the oaks” or “terebinths.”

measure

In Genesis 18:6, the Hebrew *seah*, a dry measure. Three seahs made one ephah, very roughly 20 to 30 litres. Scholars’ estimates differ.

fine meal

Finely ground flour, the best kind, used for offerings and for honored guests.

dress

In the KJV, to prepare meat for cooking and serving.

theophany

An appearance of God to people in a visible form. Genesis 18 opens by saying “the LORD appeared” to Abraham.

icon

In Eastern Christian art, a painted image, usually on a wooden panel, made for prayer and teaching and following long-established patterns.

CORE IDEAS

Genesis 18 opens in the hottest part of the day. Abraham is ninety-nine years old (Genesis 17:24), sitting in the shade of his tent door at Mamre, near Hebron. In that country, people rested at midday and traveled in the cool of morning and evening. Three men suddenly stand near him. The reader has already been told the most important fact: “the LORD appeared

unto him.” Abraham, at first, has not. What he does next has been read for three thousand years as the model of welcoming a guest.

Read the primary source and count the verbs of speed. Abraham *ran* to meet them (verse 2). He *hastened* into the tent and told Sarah to make cakes *quickly* (verse 6). He *ran* to the herd, and the young man *hasted* to dress the calf (verse 7). That is five words of hurry in seven verses, from a man of ninety-nine in the heat of the day. Abraham does not wait to be asked. He goes out to the strangers, bows to the ground and begs them not to pass him by. The host treats it as an honor that the guests would stop.

Next, look at the gap between what Abraham promises and what he gives. He offers “a little water” and “a morsel of bread” (verses 4–5). Then he orders cakes from three **measures of fine meal**, a calf “tender and good,” butter (probably curds) and milk. Three seahs made an ephah, which scholars estimate at very roughly 20 to 30 litres. Even at the low figure, that is more than 80 cups of flour, enough bread for a crowd. A herding family rarely killed a calf, because its herd was its wealth. Abraham offered little and served much. A good host does not boast of what he will do; he does more than he said.

The guests’ comfort comes first. Water for their dusty feet, rest in the shade “under the tree,” and food are all provided before any business is discussed. Then Abraham “stood by them under the tree, and they did eat” (verse 8). The head of a wealthy household stands like a servant while his guests sit. Only after the meal do the visitors give their message: Sarah, who is ninety and long past childbearing, will have a son. Sarah laughs inside the tent, and the LORD asks, “Is any thing too hard for the LORD?” (verse 14). When the guests leave, Abraham walks with them “to bring them on the way” (verse 16). He is courteous to the very end of the visit.

Who were the visitors? The text gives clues but does not answer every question. Verse 1 says the LORD appeared. Verse 2 says three men. Later, two of them go on to Sodom and are called angels (Genesis 19:1), while Abraham remains “before the LORD” (18:22) and pleads for the city. Many early Christian writers saw this as a **theophany**, and some believed the LORD who spoke with Abraham was the Son of God before His incarnation. Eastern Christians came to see the three visitors as an image of the Trinity, as in Andrei Rublev’s famous **icon**. Other readers have stressed that the text calls two of them angels. Christians agree on the main point: God Himself came to Abraham’s tent, and Abraham welcomed Him before he knew it.

That is why Genesis 18 stands behind Hebrews 13:2. Jewish tradition also made Abraham the great example of hospitality, and later rabbis told stories of his tent open on all four sides so travelers could find the door from any direction. Those stories are legends, not Scripture, but they show how deeply the chapter shaped both peoples. Hospitality in Genesis 18 is not a side matter. It is the setting in which God renewed His promise of a son, the promise through which, in the end, all nations would be blessed.

Abraham’s example sums up much of this trail. He noticed the guests, went out to meet them, put their comfort first, gave more than he promised, served with his own hands and

escorted them on their way. None of it needed fine dishes. It needed an alert eye, willing feet and a generous heart.

PICTURE STUDY



The Trinity (The Hospitality of Abraham), Andrei Rublev, c. 1411 or 1425–1427 · Tempera on wood panel ·
The State Tretyakov Gallery, Moscow
Wikimedia Commons · Public domain

Andrei Rublev was a Russian monk and painter. He made this icon for the Trinity Monastery of St. Sergius, north of Moscow. Earlier paintings of Genesis 18 showed Abraham and Sarah serving their guests. Rublev left the hosts out and painted only the three visitors at the table, turning the story into a picture for prayer about God Himself. The building behind them stands for Abraham's house and the tree for the oak of Mamre.

Look closely

- Follow the tilt of the heads and the lines of the bodies. How do they lead your eye in a circle around the table?
- Find the cup on the table. What is in it, and why might the painter have put one dish at the center?
- Find the open space at the front of the table. Some viewers say it seems to leave room for someone else. Who might that be?

Talk about it

1. Rublev left out Abraham and Sarah. What does the icon gain by that choice, and what does it lose compared with the Genesis text?
2. The date of the icon is disputed (about 1411 or 1425–1427). What kinds of evidence could historians use to date a painting that has no written date on it?

HANDS-ON: ABRAHAM'S MEAL BY THE NUMBERS

Use the primary source and some careful arithmetic to estimate the size of the meal Abraham served, and then write a short host's checklist from his example.

You will need

- The primary source in this stop
- A calculator
- A measuring cup and a 1-litre container (optional, to see the size)

Steps

1. List every action Abraham takes in verses 1–8 in order. Mark the five words of speed.
2. Take the low estimate for an ephah (three seahs): 22 litres. A US cup holds about 0.237 litres. Find how many cups of flour that is.
3. A loaf of bread uses about 3 cups of flour. How many loaves could Sarah have made? (Flatbread cakes on the hearth would be thinner, so the number of cakes was larger.)
4. Flour weighs about 0.53 kg per litre. Find the weight of 22 litres of flour in kilograms and pounds (1 kg $\approx$ 2.2 lb).
5. Write a six-line "Abraham's checklist" for hosting, one line for each thing he did (notice, go out, comfort first, give more than promised, serve, escort out).

Check your work

- My list of actions follows the order of the text.
- My arithmetic shows its steps: about 93 cups, about 31 loaves, about 11.7 kg or 26 lb.
- Each line of my checklist points to a verse.

FIELD NOTEBOOK

1. **Hospitality notebook, page 2.** Draw Abraham's tent under the trees with the three visitors, and label the water, the bread, the calf, and the butter and milk.
2. Draw a timeline of Genesis 18: arrival, welcome, meal, promise, Sarah's laugh, departure, Abraham's prayer for Sodom.
3. **Narration.** Write one paragraph retelling Abraham's welcome and explaining two things a host today can learn from it. A parent keeps this paragraph.

Did you know? Near Hebron today there are two different sites called the Oak of Abraham or Mamre. One, Ramat el-Khalil, has the ruins of a large enclosure and a church built under the Roman emperor Constantine in the 300s. Nobody can be sure which tree, if any, is the one in Genesis, but pilgrims have visited Mamre for well over a thousand years.

Primary source. *Genesis 18:1–8, King James Version (1611):*

1 And the LORD appeared unto him in the plains of Mamre: and he sat in the tent door in the heat of the day;
2 And he lift up his eyes and looked, and, lo, three men stood by him: and when he saw them, he ran to meet them from the tent door, and bowed himself toward the ground,
3 And said, My Lord, if now I have found favour in thy sight, pass not away, I pray thee, from thy servant:
4 Let a little water, I pray you, be fetched, and wash your feet, and rest yourselves under the tree:
5 And I will fetch a morsel of bread, and comfort ye your hearts; after that ye shall pass on: for therefore are ye come to your servant. And they said, So do, as thou hast said.
6 And Abraham hastened into the tent unto Sarah, and said, Make ready quickly three measures of fine meal, knead it, and make cakes upon the hearth.
7 And Abraham ran unto the herd, and fetcht a calf tender and good, and gave it unto a young man; and he hasted to dress it.
8 And he took butter, and milk, and the calf which he had dressed, and set it before them; and he stood by them under the tree, and they did eat.

Go deeper.

- Read the whole of Genesis 18 and 19 and compare Abraham's welcome with Lot's welcome and with the men of Sodom.
- The State Tretyakov Gallery, Moscow, collection page for Rublev's *Trinity* (tretyakovgallery.ru).
- Rembrandt's etching *Abraham Entertaining the Angels* (1656), in many museum collections, including the Rijksmuseum and the Metropolitan Museum of Art: compare it with Rublev.
- Second video topic: "Bedouin hospitality and tent life" (preview first).

Goes deeper in. History, "Abraham and the Patriarchs," and Art, "Icons and Byzantine Art" (coming soon).

For families. Sources: KJV text of Genesis 17-19; standard Bible dictionaries for the *seah* and *ephah* (estimates of the ephah range from about 22 to about 36 litres; the stop uses the low figure); State Tretyakov Gallery for Rublev's *Trinity*, whose date is disputed (often given as 1411 or 1425-1427). The identity of the visitors is presented as Christians have read it, with the Eastern Trinitarian reading and the reading of a pre-incarnate appearance of the Son named as interpretations; families may discuss their own church's teaching. The "tent open on four sides" is a later rabbinic legend and is labeled as such.

PRACTICE

1. **EASY** Where was Abraham living, and what time of day did the visitors come?
2. **EASY** List the four foods Abraham set before his guests.

3. **MEDIUM** What did Abraham promise in verse 5, and what did he actually serve? What does the difference teach a host?
4. **MEDIUM** What did Abraham do while his guests ate, and what did he do when they left (verse 16)?
5. **CHALLENGE** Take an ephah as 22 litres. (a) How many US cups (0.237 L) is that? (b) How many 3-cup loaves? (c) About how much does it weigh at 0.53 kg per litre, in kilograms and pounds?
6. **CHALLENGE** Genesis 18:1 says “the LORD appeared,” verse 2 says “three men,” and Genesis 19:1 calls two of them angels. Explain in three or four sentences how a careful reader should handle these details, and why Rublev’s icon is an interpretation rather than an illustration.

Make it a game • Haste to the Tent. A relay for two teams. At one end of the yard, set a “tent” (a chair with a blanket) and a basin of water, a plate, a cup and a napkin. On “Go!” each runner hurries to the tent, sets one item correctly before the “guest” (a teddy bear in a chair), and runs back. The first team to set the whole “meal” neatly wins, but a spilled cup or a thrown plate costs ten seconds. Afterward, ask: what is the difference between serving quickly and serving carelessly?

Scripture. “Is any thing too hard for the LORD? At the time appointed I will return unto thee, according to the time of life, and Sarah shall have a son.” (Genesis 18:14, KJV)

The promise came to Abraham at his own table, after he had welcomed his guests. God gave Isaac to a couple far too old to have children, and through Isaac’s line came Christ.

Practice: answers

1. At Mamre, near Hebron; in the heat of the day (midday).
2. Cakes (bread) baked on the hearth, a calf “tender and good,” butter and milk.
3. He promised “a morsel of bread” but served cakes from three measures of fine meal, a tender calf, butter and milk. A good host promises modestly and gives generously, without boasting.
4. He stood by them under the tree, like a servant ready to help. When they left, he walked with them to bring them on their way.
5. (a) $22 \div 0.237 \approx 92.8$, about 93 cups. (b) $93 \div 3 = 31$ loaves. (c) $22 \times 0.53 \approx 11.7$ kg; $11.7 \times 2.2 \approx 25.7$, about 26 lb.
6. A careful reader keeps all three details without forcing them: God truly appeared to Abraham, the visitors looked like men, and two of them are later called angels while Abraham remains before the LORD. Christians have explained this in different ways, such as a pre-incarnate appearance of the Son with two angels, or (in Eastern tradition) an image of the Trinity. Rublev’s icon leaves out Abraham, Sarah and the meal and arranges the three as equals around one cup, so it teaches a theological reading rather than showing the scene as Genesis tells it.

3.3 MARTHA AND MARY

OBJECTIVES

- Read Luke 10:38–42 closely, define its key KJV words, and explain exactly what Jesus corrected in Martha.
- Compare Luke’s account with John 11–12 to form a fuller, fairer picture of Martha.
- Apply the passage to hosting by planning a gathering so that the host can sit with the guests.

Warm-up. Think of a time you were working hard while someone else seemed to be doing nothing. Write two sentences: what did you feel, and what did you say (or want to say)? Keep it private if you like. You will compare it with Martha’s words.

Video slot. Video coming. Martha and Mary (Luke 10:38–42); Bethany in the time of Jesus; Vermeer’s Christ in the House of Martha and Mary. Search approved channels (Ligonier Ministries, National Galleries of Scotland, Khan Academy Smarthistory); preview first.

KEY TERMS

cumbered

In the KJV, weighed down or distracted. The Greek word suggests being pulled away in many directions.

careful

In the KJV, “full of care”: anxious and worried. It does not mean “cautious,” as it does today.

needful

Necessary. “One thing is needful” means one thing is truly required.

good part

The good portion or share, like the best dish at a meal. Mary chose to receive Christ’s word, a portion that could not be taken away.

at the feet

The posture of a student before a teacher. Paul said he was brought up “at the feet of Gamaliel” (Acts 22:3).

Bethany

A village on the Mount of Olives, “about fifteen furlongs” (roughly 1.7 miles) from Jerusalem (John 11:18), home of Martha, Mary and Lazarus.

CORE IDEAS

Luke places this short scene right after the parable of the Good Samaritan. Just before it, a lawyer summed up the Law: love God with all your heart, soul, strength and mind, “and thy

neighbour as thyself" (Luke 10:27). The Samaritan shows love to a neighbor; Mary at Jesus' feet shows love to God by listening. Read the two stories together and the balance is plain. Serving people matters, and so does sitting still before the Lord. Luke says only "a certain village." John's Gospel tells us the sisters lived at Bethany, less than two miles from Jerusalem, with their brother Lazarus.

Notice first who the host is. "A certain woman named Martha received him into her house" (verse 38). Martha opens the door. That is good, and it is what Romans 12:13 commands. Jesus usually traveled with the Twelve and often with others, so a meal for Him could mean a meal for more than a dozen hungry men. Martha had a great deal of real work to do: water drawn, bread baked, perhaps meat or fish prepared, all without running water or a stove. Her problem was not that she worked.

Her problem was what the work did to her. Luke says she was **cumbered** "about much serving," pulled in many directions. Then she said something remarkable. She interrupted the Teacher in front of His guests, accused Him of not caring ("dost thou not care?"), and told Him what to do ("bid her therefore that she help me"). Many of us know that feeling: the busier the host, the more resentful she becomes toward anyone sitting down. Martha's anxiety turned her service into complaint.

Jesus answered gently. He said her name twice, "Martha, Martha," as He said "Simon, Simon" to Peter and lamented "O Jerusalem, Jerusalem." It is the voice of affection, not scorn. He named the trouble exactly: she was **careful** (anxious) and troubled about many things. Then He said, "one thing is **needful**." Some read this as a gentle joke about the menu, meaning one dish would be enough. Most see a deeper meaning: one thing is truly necessary, and that is to hear Him. Mary had chosen "that **good part**," the best portion of the meal, which would not be taken from her. Jesus did not send Mary to the kitchen, and He did not tell Martha that cooking was wrong.

Here is some honest complexity. A few ancient manuscripts of Luke read slightly differently in verse 42, something like "few things are needful, or only one." The main point does not change. More important, Martha is not the villain of the Gospels. In John 11, when Lazarus had died, it was Martha who went out to meet Jesus, and she made one of the great confessions of faith in the New Testament: "I believe that thou art the Christ, the Son of God" (John 11:27). In John 12:2, at another supper in Bethany, we read simply, "Martha served." She is still serving, and this time without complaint. Meanwhile Mary pours costly ointment on Jesus' feet. Each sister honors Him in her own way.

Christian writers have discussed this passage for centuries. Augustine and Gregory the Great saw in the two sisters the active life of service and the contemplative life of prayer, and they said that both are good but that contemplation, like Mary's part, lasts into eternity. Medieval monks and nuns thought about the passage constantly. A thoughtful reader can accept their insight without making it a rule that people who cook are less holy than people who pray. Martha needed to sit; Mary would later need to serve.

For a host, the lesson is very practical. Hospitality exists for the guests and for fellowship, not to show off. Plan a menu you can manage; cook what you can a day ahead; set the table

early; and arrange the work so that when the guests arrive you can sit with them. A simpler meal with a host who listens is better than a feast with a host who is frantic. As Proverbs 15:17 says, “Better is a dinner of herbs where love is, than a stalled ox and hatred therewith.”

PICTURE STUDY



Christ in the House of Martha and Mary, Johannes Vermeer, c. 1654–1655 · Oil on canvas · Scottish National Gallery, Edinburgh
Wikimedia Commons · Public domain

This is the largest painting Johannes Vermeer is known to have made and one of only a few with a religious subject. He painted it early in his career, before the quiet interiors with women reading letters or pouring milk that made him famous. Vermeer gives each sister a place in one calm triangle with Christ at its center.

Look closely

- Find Martha’s basket of bread. Where is she standing, and how is she leaning?
- Find Christ’s hand. Whom is He pointing toward, and how does the gesture answer Martha’s request?
- Find Mary’s face. What is she doing with her eyes and her hand?

Talk about it

1. Vermeer shows Martha close to Christ and looking at Him, not off in a kitchen. Is this a fair reading of Luke 10? Use the text to defend your answer.
2. How does the painting connect the three figures by lines of gaze and gesture? What does that suggest about the painter’s view of the two sisters?

HANDS-ON: THE UNHURRIED HOST: A WORK PLAN

Turn Jesus' words to Martha into a real plan. Choose a simple supper for six people, and arrange the work so that the last 30 minutes before guests arrive and the whole meal are free for conversation.

You will need

- The primary source in this stop
- A family recipe or two for a simple supper
- Paper ruled into a timeline, or a spreadsheet

Steps

1. Choose a menu of no more than four items (for example, soup, bread, salad and a simple dessert). Write the total working time each item needs.
2. Sort every task into "a day ahead," "morning of," "last two hours" or "at the table." Move as much as possible earlier.
3. Draw a timeline for the day of the meal. Mark the 30 minutes before guests arrive as "ready and sitting." Nothing but lighting candles or warming bread may go there.
4. Assign tasks to family members by name, so no one is left serving alone.
5. Write two sentences linking your plan to Luke 10:40-42.

Check your work

- No more than 10 minutes of work is left for the time the guests are present, except serving and clearing.
- Every family member has a named task.
- My two sentences quote or refer to the passage accurately.

FIELD NOTEBOOK

1. **Hospitality notebook, page 3.** Draw a two-column chart, "Martha" and "Mary," with everything Luke and John tell about each sister.
2. Copy Luke 10:41-42 in your best handwriting.
3. **Narration.** Write one paragraph explaining what Jesus corrected in Martha and what He did not correct, using both Luke 10 and John 11-12. A parent keeps this paragraph.

Did you know? For many years Vermeer's *Martha and Mary* was not recognized as his. It was given to the Scottish National Gallery in 1927. Fewer than forty paintings by Vermeer are known to survive today, so the discovery of a large one in a private collection was a major event.

Primary source. *Luke 10:38-42, King James Version (1611):*

38 Now it came to pass, as they went, that he entered into a certain village: and a certain woman named Martha received him into her house.

39 And she had a sister called Mary, which also sat at Jesus' feet, and heard his word.

40 But Martha was cumbered about much serving, and came to him, and said, Lord, dost thou not care that my sister hath left me to serve alone? bid her therefore that she help me.

41 And Jesus answered and said unto her, Martha, Martha, thou art careful and troubled about many things:

42 But one thing is needful: and Mary hath chosen that good part, which shall not be taken away from her.

Go deeper.

- Read John 11:1-44 and John 12:1-8 and add what you learn to your Martha and Mary chart.
- National Galleries of Scotland, collection page for Vermeer's *Christ in the House of Martha and Mary* (nationalgalleries.org).
- Compare Diego Velázquez, *Kitchen Scene with Christ in the House of Martha and Mary* (1618), National Gallery, London, where the kitchen fills the front and Christ is seen through an opening at the back.
- Second video topic: "Vermeer's early history paintings" (preview first).

Goes deeper in. Art, "The Dutch Golden Age," and Literature, "Reading the Gospels" (coming soon).

For families. Sources: KJV text of Luke 10, John 11-12, Acts 22:3 and Proverbs 15:17; National Galleries of Scotland for the painting. The text-critical note on Luke 10:42 is stated simply; families who want detail can consult a study Bible's footnote. Augustine's and Gregory the Great's reading of the sisters as the active and contemplative lives is summarized, not quoted. The stop takes care to honor both sisters; talk together about which one each family member tends to resemble.

PRACTICE

1. **EASY** In the KJV, what do "cumbered" and "careful" mean?
2. **EASY** Who was the host in Luke 10:38, and how do you know?
3. **MEDIUM** Name three things Martha said in verse 40 that show her anxiety had turned into complaint.
4. **MEDIUM** Why is it significant that Jesus said "Martha, Martha"?
5. **CHALLENGE** Someone says, "This passage teaches that cooking and serving are unspiritual." Using the primary source and John 11-12, write a careful three- or four-sentence answer.

6. **CHALLENGE** A host's supper needs 3 hours and 40 minutes of work in all. She can do 1 hour 50 minutes the day before and 55 minutes the morning of. Guests arrive at 6:00 p.m. If she wants to be finished by 5:30, at what time must the remaining work begin?

Make it a game • One Thing Needful. One player is "Martha" and juggles a list of chores called out by the others ("Stir the soup!" "Fetch the bread!" "Light the candles!"), acting each one out faster and faster. At any moment the leader rings a bell and says, "Martha, Martha." Martha must stop at once, sit down and repeat Luke 10:42 from memory. If she can, she chooses the next Martha; if not, she gets one more round of chores.

Scripture. "Be still, and know that I am God: I will be exalted among the heathen, I will be exalted in the earth." (Psalm 46:10, KJV)

Mary was still before the Lord, and Martha needed to learn to be. A host who has learned to be still can make a quiet, welcoming room for others.

Practice: answers

1. "Cumbered" means weighed down or distracted; "careful" means full of care, anxious.
2. Martha; the verse says she "received him into her house."
3. She interrupted Jesus in front of others; she accused Him of not caring ("dost thou not care"); she blamed her sister ("hath left me to serve alone"); and she told Him what to do ("bid her therefore that she help me"). Any three.
4. Repeating a name was a tender, earnest way of speaking (compare "Simon, Simon" and "O Jerusalem, Jerusalem"). It shows Jesus corrected her with affection, not contempt.
5. Jesus did not criticize Martha for receiving Him or for working; He corrected her anxiety and her complaint ("careful and troubled about many things"). Mary's "good part" was hearing His word, which is the one thing needful, but that does not make serving bad. In John 11:27 Martha makes a great confession of faith, and in John 12:2 "Martha served" at a supper for Jesus without rebuke. The passage puts serving in its right place, beneath and after listening to Christ.
6. Total 220 minutes; done ahead $110 + 55 = 165$ minutes; remaining 55 minutes. 5:30 minus 55 minutes = 4:35 p.m.

3.4 WRITING INVITATIONS

OBJECTIVES

- Write a complete invitation in both the formal third-person style and the informal note style, with every needed detail.
- Read the parable of the great supper (Luke 14:16–24) as a primary source on ancient invitations and the duties of guests.
- Plan invitation dates and expected numbers with simple calendar and percentage arithmetic.

Warm-up. Find an invitation your family has received (a wedding, a birthday, a church event) or look one up with a parent. List every piece of information it gives. Is anything missing that a guest would need to know?

Video slot. Video coming. How to write and address a handwritten invitation; the history of formal engraved invitations and RSVP cards. Search approved channels (The Emily Post Institute, Smithsonian National Postal Museum, Khan Academy Smarthistory); preview first.

KEY TERMS

bidden

In the KJV, invited. “Them that were bidden” are the invited guests.

R.S.V.P.

Short for the French *répondez s’il vous plaît*, “please reply.” It asks every guest to answer, yes or no.

regrets

A polite refusal of an invitation. “Regrets only” means reply only if you cannot come.

formal invitation

An invitation written in the third person (“Mr. and Mrs. John Smith request the pleasure of ...”), traditionally engraved or written in ink on a card, and answered in the same form.

informal invitation

A short, friendly note in the first person (“We would love you to come ...”), handwritten or sent by message.

excuse

A reason given for not doing something. In Luke 14 the guests “make excuse” after they had already been invited.

CORE IDEAS

An invitation does two jobs at once. It tells the guest, “You are wanted,” and it tells him exactly what he needs to know to come. A warm invitation that leaves out the time is a poor

invitation. A complete one that sounds cold is a poor one too. Good invitations have been written for thousands of years, and the best ones still answer the same questions: **who** is inviting, **what** the occasion is, **when** (day, date and time), **where** (with an address), **why**, and **how to reply**.

In the ancient Near East, a feast often came with a double invitation. Guests were asked ahead of time, and when the meal was ready a servant went round to say, "Come." The book of Esther shows this: Haman had already been invited to Esther's banquet, yet the king's chamberlains still came "and hasted to bring Haman" when the hour arrived (Esther 6:14). Jesus' parable of the great supper assumes the same custom. Read the primary source. A man "made a great supper, and bade many," and then sent his servant at supper time to say to them that were **bidden**, "Come; for all things are now ready."

The guests had accepted the first invitation. Now, with the meat roasted and the bread baked, "they all with one consent began to make excuse." One had bought land and must go to see it. Another had bought five yoke of oxen and must test them. A third had married and could not come. Who buys land without seeing it, or oxen without trying them? These are thin excuses, and the host is rightly angry, because a last-minute refusal after acceptance wastes his food and shames his table. Jesus' main point is about God's kingdom. God invites, many refuse, and the poor, maimed, halt and blind are brought in instead. But the story also teaches plain manners. When you accept an invitation, keep it.

Written invitations became common in Europe as paper grew cheaper and more people learned to read. By the 1700s and 1800s polite society used printed and engraved cards, written in the third person: "Mr. and Mrs. Smith request the pleasure of Mr. Brown's company at dinner on Thursday, the tenth of May, at eight o'clock." The guest replied in the same form. The French phrase **R.S.V.P.** spread because French was the language of fashion and diplomacy. In Britain, Rowland Hill's Penny Post of 1840 let anyone send a letter anywhere in the country for one penny, and notes and invitations multiplied. Emily Post's *Etiquette* (1922) gave a whole chapter, "Invitations, Acceptances and Regrets," to the forms for every occasion.

Today most families use the **informal invitation**: a friendly note, a card or a message. The formal style survives for weddings and other solemn events. Timing still matters. A common guide is two to three weeks' notice for a dinner or a party, longer for weddings, and a reply date about a week before the event so the host can plan food and seats. A guest should answer promptly, by the date asked, and should never bring someone uninvited without asking first.

Here is the honest complexity. Texts and e-mails are quick and easy to answer, and for a casual supper they are perfectly fine. But a handwritten invitation does things a text cannot. It shows that the host took time. It can be kept on a refrigerator or in a scrapbook. And it reaches people, such as many elderly neighbors, who may not use a phone for messages. On the other hand, paper invitations are slower, and replies are easier to lose. A wise host chooses the form that suits the occasion and the guests, and keeps a written list of who has answered.

Finally, invitations are a moral choice as well as a social one. Just before the parable, Jesus told His host not to invite only friends, relatives and rich neighbors who would invite him back, but to “call the poor, the maimed, the lame, the blind” who could not repay (Luke 14:12–14). The guest list is where hospitality begins. Who is on yours?

PICTURE STUDY



Woman Writing a Letter, Gerard ter Borch, c. 1655 · Oil on panel · Mauritshuis, The Hague
Wikimedia Commons · Public domain

Gerard ter Borch was a Dutch painter of small, quiet scenes of well-to-do households. Letter writing was one of his favorite subjects, and in the 1650s Dutch painters made it popular. Many people in the Dutch Republic could read and write, and letters, notes and invitations moved constantly between houses. The small panel invites the viewer to wonder what she is writing.

Look closely

- Find the quill pen, the paper and the inkwell. How is the paper held steady?
- Look at her face and her posture. How does the painter show concentration?
- Look at the light. Where does it fall most brightly, and why might the painter have chosen that?

Talk about it

1. Writing a letter in 1655 required a quill, ink, paper and time. How might that have changed what people wrote, compared with a quick text today?
2. If this woman were writing an invitation, what details would she have needed to include? Which are the same today?

HANDS-ON: A SET OF INVITATIONS

Write a matching set of invitations for a real gathering, ideally the small party you will plan in Stop C8: one formal, one informal, and a reply card or note. Use the primary source as a reminder of what a guest owes a host.

You will need

- Good paper or plain cards, and envelopes
- A pen with dark ink (a fountain pen or fine-tip pen is ideal)
- A calendar and a pencil for drafts

Steps

1. Choose the event, date, time, place and guests with a parent. Fill in a planning list: who, what, when, where, why and how to reply.
2. Draft a formal invitation in the third person, centered line by line, for example: "Mr. and Mrs. ___ / request the pleasure of / ___'s company / at a garden tea / on Saturday, the thirteenth of June / at three o'clock / [address] / R.S.V.P. by June 6."
3. Draft an informal note in the first person that gives the same facts warmly in three or four sentences.
4. Draft a short reply card a guest could return: accepting or sending regrets, with a line for the name.
5. Copy your best version neatly in ink. Address the envelope with the full name, street, city, state and ZIP code, and your return address in the upper left.
6. Read your finished invitation against the planning list. Is any fact missing?

Check your work

- Each invitation states who, what, when, where, why and how to reply, with a reply date.
- The formal invitation stays in the third person throughout.
- The writing is neat, in ink and correctly spelled; the envelope is fully addressed.

FIELD NOTEBOOK

1. **Hospitality notebook, page 4.** Glue in a copy or photo of your best invitation, and write the six questions every invitation must answer.
2. Make a three-column chart of the excuses in Luke 14:18-20: the excuse, why it is weak, and what a guest should do instead.
3. **Narration.** Write one paragraph explaining what a host owes a guest in an invitation and what a guest owes a host in reply, using the parable of the great supper. A parent keeps this paragraph.

Did you know? In the time of the formal engraved invitation, a guest who accepted a dinner invitation was expected to come unless he was ill or there was a death in the

family. Accepting a better invitation that came later was thought very rude. The parable's three excuse-makers broke exactly that rule.

Primary source. *Luke 14:16–21, King James Version (1611):*

16 Then said he unto him, A certain man made a great supper, and bade many:
17 And sent his servant at supper time to say to them that were bidden, Come;
for all things are now ready.

18 And they all with one consent began to make excuse. The first said unto him, I
have bought a piece of ground, and I must needs go and see it: I pray thee have
me excused.

19 And another said, I have bought five yoke of oxen, and I go to prove them: I
pray thee have me excused.

20 And another said, I have married a wife, and therefore I cannot come.

21 So that servant came, and shewed his lord these things. Then the master of
the house being angry said to his servant, Go out quickly into the streets and
lanes of the city, and bring in hither the poor, and the maimed, and the halt, and
the blind.

Go deeper.

- Emily Post, *Etiquette in Society, in Business, in Politics and at Home* (1922), chapter XI, “Invitations, Acceptances and Regrets”: free on Project Gutenberg (#14314).
- Smithsonian National Postal Museum (postalmuseum.si.edu): exhibits on the history of letters and the mail.
- Read Matthew 22:1–14, the parable of the wedding feast, and compare it with Luke 14.
- Second video topic: “Calligraphy basics for invitations” (preview first).

Goes deeper in. Literature, “Letters and Letter Writing,” and Arithmetic, “Calendars and Percentages” (coming soon).

For families. Sources: KJV text of Luke 14 and Esther 6:14; Emily Post, *Etiquette* (1922), Project Gutenberg #14314, for the chapter title (not quoted); the Penny Post of 1840 from standard British postal histories. The double-invitation custom is widely described by Bible commentators from Esther and Luke 14. Timing guides (two to three weeks, reply a week before) are common modern advice, not fixed rules. If your student will mail real invitations, help address and stamp them.

PRACTICE

1. **EASY** What does R.S.V.P. stand for, and what does it ask?
2. **EASY** List the six questions every invitation should answer.
3. **MEDIUM** Rewrite this informal invitation in the formal third-person style: “Hi Sam! We’re having a birthday dinner for Grandpa at our house (12 Oak Lane) Friday, March 6, at 6:30. Please let us know by March 1.”

4. **MEDIUM** Why were the excuses in Luke 14:18-20 especially rude, given the custom of the double invitation?
5. **CHALLENGE** A party is on Saturday, June 13. You want invitations to arrive three weeks before, and they take 3 days in the mail. Replies are due one week before the party. (a) On what date must you mail them? (b) What is the reply date?
6. **CHALLENGE** You invite 16 guests. From past experience, about 75% of those invited usually come. Your family of 5 will also be there. (a) How many places should you plan for? (b) The table seats 18. Is there room if every single guest comes? What would you do?

Make it a game • Excuses, Excuses. One player is the host and reads an invitation aloud. Each other player in turn invents the most ridiculous excuse they can, in KJV style (“I have bought a goldfish, and I must needs go and feed it: I pray thee have me excused”). The host chooses the funniest excuse. Then the whole group writes one honest, gracious note of regret, the kind a guest should actually send.

Scripture. “And he saith unto me, Write, Blessed are they which are called unto the marriage supper of the Lamb. And he saith unto me, These are the true sayings of God.” (Revelation 19:9, KJV)

The Bible ends with an invitation to a feast. Every earthly invitation is a small picture of God’s call, and every accepted invitation a reminder to answer His.

Practice: answers

1. *Répondez s’il vous plaît*, French for “please reply.” It asks every guest to answer, whether yes or no.
2. Who is inviting, what the occasion is, when (day, date, time), where (with address), why, and how (and by when) to reply.
3. Sample: “Mr. and Mrs. [Family Name] / request the pleasure of / Mr. Samuel [Surname]’s company / at dinner / in honor of [Grandfather’s name]’s birthday / on Friday, the sixth of March / at half past six o’clock / 12 Oak Lane / R.S.V.P. by March 1.” It must stay in the third person and keep every fact.
4. The guests had already accepted the first invitation, so the host had prepared food for them. Refusing when the servant came to say “all things are now ready” wasted his feast and shamed him, and the excuses (land and oxen bought without inspection) were thin.
5. (a) Three weeks before June 13 is Saturday, May 23; three days earlier is Wednesday, May 20. (b) One week before June 13 is Saturday, June 6.
6. (a) $16 \times 0.75 = 12$ guests; $12 + 5 = 17$ places. (b) No: $16 + 5 = 21$, which is 3 more than 18. Plan a second small table or extra folding chairs, or invite fewer people. A host should be ready for everyone invited to come.

3.5 WELCOMING A GUEST AT THE DOOR

OBJECTIVES

- Describe the steps of a gracious welcome, from preparing the entry to seeing a guest off.
- Read chapter 53 of the Rule of St. Benedict as a primary source and explain why monasteries treated guests as they did.
- Compare welcomes in Scripture (Abraham, Simon the Pharisee, the father of the prodigal son) and apply them sensibly and safely today.

Warm-up. Go outside, shut your own front door, and then walk in as if you were a guest seeing the house for the first time. Write down five things you notice in the first thirty seconds: what you see, smell and hear, and where you would put your coat.

Video slot. Video coming. Medieval monastic hospitality and the Rule of St. Benedict; the guesthouse and gatehouse of a medieval abbey. Search approved channels (English Heritage, The British Library, Khan Academy Smarthistory); preview first.

KEY TERMS

threshold

The strip of wood or stone at the bottom of a doorway; by extension, the moment of passing from outside to inside.

Rule of St. Benedict

A short book of 73 chapters written by Benedict of Nursia (c. 480–c. 547) in the early 500s to order the life of a monastery. It became the main rule for monks in Western Europe.

porter

In a monastery, the brother who kept the gate, answered every knock and brought word of visitors. Benedict asked for a sensible older monk in this post.

pilgrim

A traveler on a journey to a holy place. Medieval monasteries housed great numbers of them.

salutation

A greeting, in words or by a gesture such as a bow, a handshake or an embrace.

first impression

The judgment people form in the first moments of meeting. Psychologists have found that people form some impressions of a face within a tenth of a second.

CORE IDEAS

The welcome at the door is short, but it matters more than its length suggests. In a famous 2006 study, the psychologists Janine Willis and Alexander Todorov found that people formed

judgments about a face, such as whether it looked trustworthy, after seeing it for only a tenth of a second, and that more time mostly made them more confident. A guest who is greeted with a smile, by name and without delay feels wanted before he has taken off his coat. A guest who waits on the step, hears shouting inside and is met with “Oh, is it today?” feels the opposite, whatever the dinner is like.

Scripture shows what a welcome looked like in the ancient world. Abraham ran to meet his guests, bowed and had water brought for their feet (Genesis 18). In Luke 7, Jesus dined with Simon the Pharisee and afterward pointed out what Simon had left undone: “thou gavest me no water for my feet ... Thou gavest me no kiss ... My head with oil thou didst not anoint.” Water for dusty feet, a kiss of greeting and a little oil were the ordinary courtesies of a host. Simon’s omissions showed his coolness toward his guest. A sinful woman who wept at Jesus’ feet showed more love than the man who owned the house.

Christian monasteries turned welcome into a discipline. Around 530, Benedict of Nursia wrote a **Rule** for his monks at Monte Cassino in Italy. Read the primary source from chapter 53. Guests are to be received “like Christ,” because Christ will say, “I came as a guest, and you received Me” (Matthew 25:35). The superior and the brethren go out to meet a guest, greet him with humility, give him water for his hands and wash his feet. The poor and the **pilgrims** get “the greatest care,” because in them “especially” Christ is received. Benedict adds a shrewd note: the rich need no rule, because they win respect anyway. In chapter 66 he placed a sensible old monk at the gate as **porter**, with a room near the door so that no knock would go unanswered. For a thousand years, Benedictine houses were among the main inns, hospitals and refuges of Europe.

A good welcome today follows the same order: prepare, greet, bring in, settle. Prepare before the doorbell: turn on the porch light, clear the walk, tidy the entry, put pets away and decide where coats will go. Greet promptly: open the door wide, smile, look the guest in the eye, use his name (“Mrs. Lee! We’re so glad you came”) and invite him in. Bring in: take coats and bags, and if your family removes shoes, say so kindly and have a place for them. Settle: offer a drink, show where the washroom is, and introduce the guest to anyone he does not know (the subject of Stop C6). In a family, an older child can be the porter, ready at the door so that the parents can finish in the kitchen.

The welcome also includes the goodbye. Abraham walked with his guests “to bring them on the way” (Genesis 18:16). A host walks the guest to the door, helps with coats, thanks him for coming and, at night, keeps the porch light on until the car has gone. Monks did the same: in chapter 53, humility is shown to guests “whether arriving or departing.”

Here is the honest complexity. Customs differ. In Japan, Korea and much of Scandinavia, guests take off their shoes at the door; in some homes they do not. Some cultures greet with a bow, some with a handshake, some with a kiss on each cheek. A considerate host explains his house customs warmly and never embarrasses a guest who does not know them. A considerate guest follows the host’s custom. Wisdom also has a place. Not every knock is a guest. Children should not open the door to strangers when no adult is home, and a family can be generous without being careless.

The finest welcome in Scripture is the father's in Luke 15. While the prodigal son was "yet a great way off," his father saw him, ran, fell on his neck and kissed him, before the son could finish his prepared speech. Then came a robe, a ring, shoes and a feast. Every Christian welcome is a small picture of that one.

PICTURE STUDY



The Return of the Prodigal Son, Rembrandt van Rijn, c. 1668 · Oil on canvas · The State Hermitage Museum, St. Petersburg
Wikimedia Commons · Public domain

Rembrandt painted this huge canvas, more than eight feet tall, near the end of his life, after the deaths of his wife and his son. He shows the very moment of welcome in Jesus' parable. The father has come to the threshold of his house, and the son has fallen to his knees. Watching from the side is a tall, upright figure many viewers take to be the elder brother.

Look closely

- Look at the father's two hands on his son's back. Are they alike? What might each one express?
- Look at the son's feet. What do his shoes tell you about his journey?
- Find the standing figure on the right. How is his posture different from the father's?

Talk about it

1. The light in this painting falls most brightly on the father and son. Why do you think Rembrandt left the onlookers in shadow?
2. Compare this welcome with Simon the Pharisee's in Luke 7:44-46. What did the father give that Simon withheld?

Safety first. Answering the door is a job for a grown-up or for a child with a grown-up close by. Never open the door to someone you do not know when no adult is home. Look through a window or a peephole first, and when in doubt, keep the door closed and fetch a parent.

HANDS-ON: THE PORTER'S PLAN

Write and practice a family “welcome plan” for guests, using Benedict’s Rule and the Scripture welcomes as a model, and then use it for real.

You will need

- The primary source in this stop
- Paper and pen
- A family member or friend to play the guest

Steps

1. Read the primary source aloud. List each thing Benedict asks the monks to do for a guest. Next to each, write a modern equivalent (for example, water for the hands → offering a drink or showing the washroom).
2. Make a “Before the bell” checklist of at least six items for your home: light, walk, entry, coats, shoes, pets, smells, noise.
3. Write a short script for the door: the greeting, the invitation in, taking coats, the offer of a drink, and the first introduction.
4. Write a “Goodbye” checklist: coats, thanks, walking out, porch light.
5. Practice twice with a family member as the guest: once on time, once arriving early while the house is still busy. What changes?
6. Use the plan for a real guest and write two sentences afterward on what went well and what to change.

Check your work

- My plan covers preparing, greeting, bringing in, settling and saying goodbye.
- At least three items are clearly drawn from Benedict or from Scripture.
- I practiced the script aloud and used it with a real guest.

FIELD NOTEBOOK

1. **Hospitality notebook, page 5.** Draw a plan of your front entry from above. Mark where guests will stand, where coats and shoes go and where the porter waits.
2. Make a table comparing three welcomes: Abraham (Genesis 18), Simon the Pharisee (Luke 7) and the father of the prodigal (Luke 15). What did each host do or fail to do?
3. **Narration.** Write one paragraph on why Benedict told his monks to receive guests “like Christ,” and what that would look like at your own front door. A parent keeps this paragraph.

Did you know? Benedict's own monastery at Monte Cassino was destroyed several times: by the Lombards around 580, by Saracen raiders in 883, by an earthquake in 1349, and by Allied bombing in February 1944 during the Second World War. Each time it was rebuilt. The present abbey was reconsecrated in 1964.

Primary source. *The Rule of St. Benedict* (early 500s), chapter 53, "On the Reception of Guests," translated by Leonard J. Doyle (Project Gutenberg #50040):

Let all guests who arrive be received like Christ, for He is going to say, 'I came as a guest, and you received Me.' And to all let due honor be shown, especially to the domestics of the faith and to pilgrims. As soon as a guest is announced, therefore, let the Superior or the brethren meet him with all charitable service. ... In the salutation of all guests, whether arriving or departing, let all humility be shown. ... Let the Abbot give the guests water for their hands; and let both Abbot and community wash the feet of all guests. ... In the reception of the poor and of pilgrims the greatest care and solicitude should be shown, because it is especially in them that Christ is received; for as far as the rich are concerned, the very fear which they inspire wins respect for them.

Go deeper.

- *St. Benedict's Rule for Monasteries*, translated by Leonard J. Doyle: free on Project Gutenberg (#50040). Read chapters 53 and 66.
- Gregory the Great, *Dialogues*, Book II: the earliest life of St. Benedict (many translations; look for one at the library).
- English Heritage pages on Rievaulx Abbey or Fountains Abbey (english-heritage.org.uk, nationaltrust.org.uk): look for the guesthouse and gatehouse.
- Second video topic: "A day in a medieval monastery" (preview first).

Goes deeper in. History, "Monasteries and the Middle Ages," and Art, "Rembrandt and the Dutch Golden Age" (coming soon).

For families. Sources: *The Rule of St. Benedict*, Doyle translation, copied from Project Gutenberg #50040 (ellipses mark omitted sentences); KJV text of Luke 7 and Luke 15; Willis and Todorov, "First Impressions," *Psychological Science* (2006). Benedict's dates are approximate. The Monte Cassino bombing is mentioned without detail. The safety rule about answering the door is meant to be adapted to your own household's rules.

PRACTICE

1. **EASY** What did Benedict say guests should be received "like"? Which verse does he point to?
2. **EASY** What three courtesies did Simon the Pharisee fail to give Jesus (Luke 7:44-46)?

3. **MEDIUM** List the four stages of a good welcome described in this stop, with one action for each.
4. **MEDIUM** In the primary source, which guests does Benedict say need “the greatest care,” and why?
5. **CHALLENGE** Benedict observes that the rich win respect by “the very fear which they inspire.” Explain what he means and why this observation makes his rule about the poor necessary. Give a modern example.
6. **CHALLENGE** In Luke 15:20–24, list in order everything the father does from first seeing his son to the feast. What does the order show about the father’s welcome?

Make it a game • Doorbell Drill. Players take turns as “porter” and “guest.” The leader draws a card describing the guest (a grandmother with a cane, a new neighbor carrying a pie, a family with a baby and a stroller, a friend arriving very early). The guest rings the bell and acts the part; the porter must greet by name, invite in, help with whatever the guest carries and settle him. The others score the porter from 1 to 5 for warmth and helpfulness, then swap.

Scripture. “And he arose, and came to his father. But when he was yet a great way off, his father saw him, and had compassion, and ran, and fell on his neck, and kissed him.” (Luke 15:20, KJV)

The father was watching the road, saw his son first and ran to meet him. That is how God welcomes sinners who come home, and it is the pattern for every welcome a Christian family gives.

Practice: answers

1. Like Christ; he quotes Christ’s words “I came as a guest, and you received Me,” from Matthew 25:35.
2. Water for His feet, a kiss of greeting and oil for His head.
3. Prepare (porch light, clear walk, tidy entry, pets away); greet (open promptly, smile, use the guest’s name); bring in (take coats, explain shoes kindly); settle (offer a drink, show the washroom, introduce).
4. The poor and pilgrims, because in them especially Christ is received; the rich already win respect through the fear they inspire.
5. People naturally treat rich or powerful guests well because they hope for favor or fear offending them; no rule is needed for that. The poor offer nothing in return, so they are easily neglected, and a rule is needed to make sure they are treated best. A modern example: a family might fuss over a wealthy visitor while ignoring a shy newcomer at church; Benedict would reverse that.
6. He saw him a great way off, had compassion, ran, fell on his neck, kissed him; then (after the son began his confession) called for the best robe, a ring, shoes, and the fatted calf, and began a feast. The welcome comes before the son’s speech is finished: the father’s love goes out first and is not earned. The gifts restore him to the family as a son, not a servant.

3.6 INTRODUCTIONS AND REMEMBERING NAMES

OBJECTIVES

- Make a correct and gracious introduction, naming the person to be honored first and adding a helpful detail.
- Read Emily Post's 1922 rules for introductions, explain the reasoning behind them, and judge which parts are lasting and which are custom.
- Explain why names are easily forgotten and use at least three proven methods for remembering them.

Warm-up. Without looking anything up, write the full names of every adult you spoke to at church or a gathering last week. How many can you remember? Mark the ones you only know by face. Keep the list for the project.

Video slot. Video coming. How to make a proper introduction and remember names; Renoir's Luncheon of the Boating Party and who is in it. Search approved channels (The Emily Post Institute, The Phillips Collection, Khan Academy Smarthistory); preview first.

KEY TERMS

introduction

Making two people known to each other by name, usually by a third person who knows both.

present

In formal manners, to introduce someone to a person of higher honor: "Mrs. Jones, may I present Mr. Smith?"

precedence

The order of honor among people, which decides whose name is said first in an introduction or who is seated first.

honorific

A title of respect used with a name, such as Mr., Mrs., Miss, Dr. or Pastor.

next-in-line effect

The tendency to forget what was said just before your own turn to speak, because your attention is on what you are about to say.

mnemonic

A memory aid, such as a picture, rhyme or link, that helps you recall something (say "neh-MON-ik").

CORE IDEAS

A name is not a label stuck on a person; it stands for the person. In Scripture, God names and calls by name. Adam named the animals (Genesis 2:19). God told Israel, "I have called

thee by thy name; thou art mine” (Isaiah 43:1). Jesus looked up into a sycamore tree and said, “Zacchaeus, make haste, and come down; for to day I must abide at thy house” (Luke 19:5). On Easter morning He said a single word, “Mary,” and she knew Him (John 20:16). Paul closed his letter to the Romans by greeting more than two dozen believers by name. To learn and use someone’s name is a small way to honor him.

An **introduction** makes two strangers known to each other. A good one does three things. It gives both names clearly. It shows respect in the order of the names. And it offers something to talk about. “Grandmother, this is my friend Ben Carter. Ben, this is my grandmother, Mrs. Ellen Hayes. Ben just moved here from Ohio, and Grandmother grew up in Cincinnati.” In under ten seconds, both people know who the other is and have a way into conversation.

The order of names is called **precedence**, and it follows a simple principle: say first the name of the person you wish to honor, and bring the other person to him. Read the primary source from Emily Post’s *Etiquette* (1922), the best-selling American guide of its day. Post explains that the younger person is presented to the older or more distinguished, and that a gentleman is presented to a lady. So you say, “Mrs. Jones, may I **present** Mr. Smith?” The honored person hears his own name first and receives the other. Post insisted that only a very few people outranked a lady in this order: the President, a cardinal and a reigning king or queen.

When you are introduced, stand if you are seated (adults always did this for elders, and young people still should). Look the person in the eye, give a firm, brief handshake if one is offered, and repeat the name: “How do you do, Mrs. Hayes?” Use an **honorific** with older adults until they ask you to use a first name. Post also gave a useful rule for a dinner party where the host has not introduced you to your neighbor at table: introduce yourself. Say your own name plainly, and the other person will usually answer with his.

Then comes the hard part: remembering. Psychologists have found several reasons names slip away. One is the **next-in-line effect**, first described by Malcolm Brenner in 1973. People in a group taking turns forgot what was said just before their own turn because they were rehearsing their own lines. In an introduction, that means you miss the other person’s name while thinking about your handshake. Another is the “Baker/baker” puzzle. In a 1987 study, people shown faces remembered that a man was a baker more easily than that his name was Baker. A job brings pictures and links to mind, but a name, by itself, means little. The cure follows from the cause. First, **pay attention** at the moment the name is said. Second, **repeat it** aloud at once. Third, **use it** once more in the conversation. Fourth, **link it** to a picture or a person you know (Mr. Fisher holding a fishing rod). Fifth, **review it** later in the evening and write it down afterward.

Here is the honest complexity. Some of Post’s rules were the customs of her time and class. Business etiquette today usually orders introductions by rank or age rather than by whether someone is a man or a woman, and many families now use first names more freely. Post also wrote that people of good taste disliked being asked their names. Today, if you have forgotten someone’s name, most people would much rather hear an honest “I’m so sorry, please tell me your name again” than watch you bluff. Customs change. The principle does

not. Paul's command to be "in honour preferring one another" (Romans 12:10) still governs the order of names and the care taken to learn them.

For a host, introductions are part of the job, not an extra. No guest should stand alone in a room of strangers. As each guest arrives, a good host introduces him to at least one person and gives the two of them something in common. At a larger gathering, name tags written in large, clear letters help everyone. The guest who goes home having been called by name all evening knows he was truly welcome.

PICTURE STUDY



Luncheon of the Boating Party, Pierre-Auguste Renoir, 1880–1881 · Oil on canvas · The Phillips Collection, Washington, D.C.

Wikimedia Commons · Public domain

Renoir painted his friends on the balcony of the Maison Fournaise, a restaurant on the Seine at Chatou, outside Paris, where boaters stopped for lunch. Unlike most crowd scenes, almost every person in this painting is a real, named individual. Art historians have identified most of them, including the restaurant owner's son and daughter, the painter Gustave Caillebotte and the seamstress Aline Charigot, who later became Renoir's wife. A few identifications are still debated.

Look closely

- Count the people. How many separate conversations can you find?
- Find the young woman holding the small dog at the front left, and the man sitting backward on a chair at the front right. Whom is each one looking at?
- Find someone who seems to be outside the conversation. How could a good host draw that person in?

Talk about it

1. If you had arrived at this party knowing no one, whom would you want to be introduced to first, and why?
2. Renoir's friends could be named by historians more than a century later. What does that suggest about the value of knowing and recording people's names?

HANDS-ON: THE NAMES CHALLENGE

Practice introductions until they are automatic, and test the memory methods from this stop at a real gathering.

You will need

- The primary source in this stop
- Index cards and a pen
- Your warm-up list

Steps

1. On index cards, write eight imaginary people with an age, a title and one interesting fact (for example, "Dr. Ruth Nolan, 70, retired surgeon, grows roses").
2. Draw two cards at a time and introduce them aloud to a family member, putting first the name of the person to be honored and adding a fact they share or could talk about. Do this until you have made eight introductions without hesitation.
3. Rewrite Post's example "Mrs. Jones, may I present Mr. Smith?" in the less formal words you would actually use today. Keep the same order of names.
4. At the next gathering you attend, use the five steps: attend, repeat, use, link, review. Aim to learn at least five new names.
5. Afterward, write each name with the link you used. Test yourself again one week later. How many do you still know?

Check your work

- I made eight smooth introductions with the honored person named first.
- I learned at least five new names at a real gathering and wrote them down with links.
- I tested my memory after one week and recorded the result.

FIELD NOTEBOOK

1. **Hospitality notebook, page 6.** Write the five steps for remembering a name and draw a small picture-link for one name you learned.
2. Write out a model introduction between two real people you know, with the reason for the order of names.
3. **Narration.** Write one paragraph explaining how to make a good introduction and why names matter, using at least one Scripture example and one idea from Emily Post. A parent keeps this paragraph.

Did you know? Duncan Phillips bought *Luncheon of the Boating Party* in 1923 for \$125,000, a huge sum then, and it became the centerpiece of his museum, which opened in his family home in Washington in 1921 as one of America's first museums of modern art. The Maison Fournaise at Chatou has been restored and is still a restaurant and small museum.

Primary source. *Emily Post, Etiquette in Society, in Business, in Politics and at Home (1922), chapter II, "Introductions" (Project Gutenberg #14314):*

The word "present" is preferable on formal occasions to the word "introduce." ... The correct formal introduction is: "Mrs. Jones, may I present Mr. Smith?" or, "Mr. Distinguished, may I present Mr. Young?" The younger person is always presented to the older or more distinguished, but a gentleman is always presented to a lady, even though he is an old gentleman of great distinction and the lady a mere slip of a girl. ... Most people of good taste very much dislike being asked their names.

Go deeper.

- Emily Post, *Etiquette* (1922), chapter II, "Introductions," which also covers introducing yourself at a dinner: free on Project Gutenberg (#14314).
- Read Romans 16:1-16 and count the people Paul greets by name. What does he say about several of them?
- The Phillips Collection, Washington, D.C. (phillipscollection.org): its pages on *Luncheon of the Boating Party* identify the sitters.
- Second video topic: "Memory techniques: the method of loci and picture links" (preview first).

Goes deeper in. Art, "Impressionism," and Literature, "Manners in Classic Novels" (coming soon).

For families. Sources: Emily Post, *Etiquette* (1922), chapter II, copied from Project Gutenberg #14314 (ellipses mark omitted text; the two example introductions are printed as set-off lines in the original); KJV text of the verses cited; Brenner, "The Next-in-Line Effect," *Journal of Verbal Learning and Verbal Behavior* (1973); McWeeny, Young, Hay and Ellis, "Putting names to faces," *British Journal of Psychology* (1987), for the Baker/baker finding; The Phillips Collection for the painting and its sitters. Post's rule of presenting a gentleman to a lady is described as the custom of her day; talk together about how your family introduces people.

PRACTICE

1. **EASY** In a correct introduction, whose name is said first?
2. **EASY** What is the next-in-line effect?

3. **MEDIUM** Introduce your 15-year-old friend Daniel Ortiz to your pastor, Rev. Thomas Hale, adding one helpful detail.
4. **MEDIUM** Explain the “Baker/baker” finding and what it suggests about how to remember names.
5. **CHALLENGE** At a party of 12 people who are all strangers, every pair must be introduced. How many introductions is that? If a host introduces each new arrival to everyone already there, how many introductions does the 12th guest need? Why do hosts use small-group introductions instead?
6. **CHALLENGE** Using the primary source and Romans 12:10, separate Post’s rules into (a) a lasting principle and (b) a custom of her time. Defend your choices in three or four sentences.

Make it a game • Name Chain. Players sit in a circle. The first says, “I am Hannah, and I like honey.” The next says, “That is Hannah who likes honey; I am Peter, and I like pancakes.” Each player repeats every name and food before adding his own, choosing a food that starts with the same letter as his name. A player who forgets a name is helped by the group and then continues. Afterward, talk about why the matching letters made the names easier to remember.

Scripture. “But I trust I shall shortly see thee, and we shall speak face to face. Peace be to thee. Our friends salute thee. Greet the friends by name.” (3 John 1:14, KJV)

John ends his short letter to Gaius, a faithful host, with a command about names. The early Christians knew one another personally, and greeting each other by name was part of their love.

Practice: answers

1. The name of the person to be honored (traditionally the older, more distinguished person, or the lady); the other person is presented to him or her.
2. The tendency to forget what was said just before your own turn to speak, because you are concentrating on what you will say.
3. Sample: “Pastor Hale, I’d like you to meet my friend Daniel Ortiz. Daniel, this is our pastor, Reverend Hale. Daniel plays the cello in the youth orchestra, Pastor; you mentioned you used to play.” The pastor is named first.
4. People remember that someone is a baker more easily than that his name is Baker, because a job calls up pictures and links while a name alone means little. So you should give a name meaning by linking it to an image or a person you know.
5. Pairs = $12 \times 11 \div 2 = 66$ introductions. The 12th guest must meet the 11 already there, so 11 introductions. Because the total grows very fast, hosts introduce each guest to one or two people with something in common and let small groups form.
6. (a) The lasting principle is that an introduction shows honor by naming first, and bringing others to, the person who deserves respect, such as an elder; this matches “in honour preferring one another” (Romans 12:10). (b) Customs of her time include always using “present” on formal occasions, never asking a person’s name, and presenting a gentleman to

a lady regardless of age or rank. These details depend on the society of 1922, while the duty to honor others does not change.

3.7 THANK-YOU NOTES

OBJECTIVES

- Write a specific, sincere handwritten thank-you note with all its parts, for a gift and for hospitality.
- Read the healing of the ten lepers (Luke 17:11–19) as a primary source on gratitude and explain what Jesus noticed.
- Explain what research and Scripture show about the value of expressing thanks, and handle hard cases honestly.

Warm-up. List every gift, meal, ride, lesson or kindness you received in the last month. Put a check by each one you thanked the giver for in words, and a star by any you thanked in writing. What fraction did you thank in writing?

Video slot. Video coming. How to write a handwritten thank-you note; the history of letter writing and the post. Search approved channels (The Emily Post Institute, Smithsonian National Postal Museum, National Gallery of Ireland); preview first.

KEY TERMS

gratitude

Thankfulness: recognizing a good thing as a gift and honoring the giver.

thank-you note

A short handwritten message thanking someone for a gift, a kindness or hospitality, usually four to six sentences.

bread-and-butter letter

A traditional name for the thank-you note a guest writes to a host after a meal or a stay in the home.

salutation and closing

The greeting that opens a letter (“Dear Aunt Ruth,”) and the words before the signature (“With love,” “Gratefully,” “Sincerely,”).

specific detail

A concrete fact in a note that shows you noticed the gift or kindness, such as how you will use it or a moment you enjoyed.

Samaritan

A member of a people living between Judea and Galilee, related to Israel but separated from the Jews by religion and history. Jews and Samaritans generally avoided each other.

CORE IDEAS

Gratitude is first a matter of the heart toward God. “In every thing give thanks,” Paul wrote, “for this is the will of God in Christ Jesus concerning you” (1 Thessalonians 5:18). But

gratitude does not stay invisible. It speaks. Read the primary source, Luke 17:11-19. Ten men with leprosy cried out to Jesus from a distance, because the law kept them apart from others. He sent them to show themselves to the priests, and on the way they were cleansed. All ten were healed. Only one turned back, glorified God with a loud voice and fell at Jesus' feet "giving him thanks." That is one in ten, or ten percent. Luke adds the surprise: "he was a Samaritan."

Jesus noticed. "Were there not ten cleansed? but where are the nine?" The nine were not wicked. They were probably doing exactly what He told them, hurrying to the priests to be declared clean and to go home to their families. But they let the gift carry them away from the Giver. The **Samaritan**, a "stranger," was the one who came back. Gratitude completes a gift. Without it, something is left undone.

Paul's own letters show what Christian thanks sounds like on paper. He opens Philippians, "I thank my God upon every remembrance of you." Near the end he thanks the church specifically for the money and supplies they sent him in prison by their messenger Epaphroditus. He calls the gift "an odour of a sweet smell, a sacrifice acceptable, wellpleasing to God" (Philippians 4:18). He names the gift, names the messenger, tells them what it meant and points them to God. That is a thank-you note.

A good **thank-you note** today has the same parts. (1) A **salutation**: "Dear Mrs. Park," (2) The thanks, naming the gift or kindness exactly: "Thank you for the supper on Friday and for the recipe for your lemon cake." (3) A **specific detail** that shows you noticed, or how you will use the gift: "I made the cake for my brother's birthday, and it was gone in ten minutes." (4) A word about the giver or the relationship: "Your kitchen always feels like home." (5) A **closing** and signature: "Gratefully, Anna." Four to six sentences is enough. Write promptly, within a week or so for most gifts and visits. A note after a meal or a stay is an old courtesy called a **bread-and-butter letter**.

Research suggests we badly underestimate the value of such notes. In a 2018 study in *Psychological Science*, Amit Kumar and Nicholas Epley asked people to write a letter of thanks to someone who had helped them. The writers then predicted how the person would feel. Most letters took only a few minutes to write. Writers consistently underestimated how surprised and happy the recipients would be and overestimated how awkward the recipients would feel. The researchers concluded that a mistaken fear of awkwardness keeps many people from expressing thanks at all. Proverbs 11:25 says it more simply: "he that watereth shall be watered also himself."

Here is the honest complexity. What if you do not like the gift? A thank-you note must never lie. Do not write "I love the purple sweater" if you do not. But you can always tell the truth about the giver's kindness, thought and effort: "It was so kind of you to remember my birthday, and I could tell you chose it with care." What about a quick text instead? For a small favor between friends, a text is fine. For gifts, hospitality, help from an older person and anything that cost the giver real effort, a handwritten note is better. It takes longer, and that is the point. A note written by hand can also be kept. Many families have shoeboxes of old letters that become treasures. Finally, a form note ("Thank you for the gift. I like it a

lot.") that could be sent to anyone is barely better than nothing. The specific detail is what makes thanks real.

The habit is worth building early. A family can keep a stack of cards, stamps and addresses in one drawer, and set aside an hour after birthdays and Christmas for notes. The one leper who returned was not the only one healed, but he was the only one who heard Jesus say, "Arise, go thy way: thy faith hath made thee whole."

PICTURE STUDY



Man Writing a Letter, Gabriel Metsu, c. 1664–1666 · Oil on panel · National Gallery of Ireland, Dublin
Wikimedia Commons · Public domain

Gabriel Metsu painted this panel as one of a pair. Its partner, *Woman Reading a Letter*, shows a young woman reading a letter while her maid lifts a curtain from a painting of a ship on a stormy sea. Viewers are meant to imagine that the letter he writes is the one she reads. Dutch painters of the 1660s loved such quiet stories told in objects: a globe, a rug, a seal, an inkwell.

Look closely

- Find the quill, the inkwell and the seal for closing the letter. What tools did a letter writer need in the 1660s?
- Look at the window light. What does it fall on most brightly?
- Look at his face and hands. Is he writing quickly or carefully? How can you tell?

Talk about it

1. Writing and sending a letter in 1665 took time, materials and money. How might that cost have changed what people wrote?

2. Metsu painted the writer and the reader as a pair. What does that suggest about a letter's purpose: is it finished when it is written or when it is read?

HANDS-ON: FIVE REAL THANK-YOU NOTES

Write and send five real handwritten thank-you notes: at least one for a gift, one for hospitality (a bread-and-butter letter) and one to someone who has helped you in a way that was not a gift at all, such as a teacher, coach, pastor or neighbor.

You will need

- Five note cards or sheets of good paper, and envelopes
- A pen with dark ink
- Addresses and stamps (a parent can help)
- Your warm-up list

Steps

1. Choose five people from your warm-up list. For each, write in pencil the five parts: salutation, thanks naming the gift or kindness, a specific detail, a word about the giver, and a closing.
2. Read each draft aloud. Cross out any sentence that could be sent to anyone. Replace it with something only this person could receive.
3. Copy each note neatly in ink. Sign by hand.
4. Address and stamp the envelopes, with your return address in the upper left.
5. Before mailing, predict on a scale of 1 to 10 how happy each person will be to receive it. Afterward, if anyone mentions the note, record what they said. Compare with Kumar and Epley's finding.

Check your work

- All five notes have all five parts and at least one specific detail.
- None of my notes says anything untrue.
- The notes are in ink, neatly written, signed and mailed or delivered.

FIELD NOTEBOOK

1. **Hospitality notebook, page 7.** Copy one of your thank-you notes (or a photo of it) and label its five parts.
2. Draw a simple diagram of the ten lepers: ten figures walking away and one turning back. Write Luke 17:17 beneath it.
3. **Narration.** Write one paragraph explaining what the story of the ten lepers teaches about gratitude and how it applies to writing thank-you notes. A parent keeps this paragraph.

Did you know? Metsu's *Man Writing a Letter* and *Woman Reading a Letter* have had dramatic lives. Both were among the paintings stolen from Russborough House in Ireland in 1974, and *Man Writing a Letter* was stolen again in 1986. Both were recovered. In 1987 Sir Alfred and Lady Beit gave them, with other masterpieces, to the National Gallery of Ireland, where the pair now hang together.

Primary source. *Luke 17:11-19, King James Version (1611):*

11 And it came to pass, as he went to Jerusalem, that he passed through the midst of Samaria and Galilee.

12 And as he entered into a certain village, there met him ten men that were lepers, which stood afar off:

13 And they lifted up their voices, and said, Jesus, Master, have mercy on us.

14 And when he saw them, he said unto them, Go shew yourselves unto the priests. And it came to pass, that, as they went, they were cleansed.

15 And one of them, when he saw that he was healed, turned back, and with a loud voice glorified God,

16 And fell down on his face at his feet, giving him thanks: and he was a Samaritan.

17 And Jesus answering said, Were there not ten cleansed? but where are the nine?

18 There are not found that returned to give glory to God, save this stranger.

19 And he said unto him, Arise, go thy way: thy faith hath made thee whole.

Go deeper.

- Read Philippians 4:10-20, Paul's thank-you for the Philippians' gift, and list its parts.
- National Gallery of Ireland (nationalgallery.ie): collection pages for Metsu's pair of letter paintings.
- Smithsonian National Postal Museum (postalmuseum.si.edu): the history of letters and mail in America.
- Second video topic: "Handwriting and penmanship: improving your cursive" (preview first).

Goes deeper in. Literature, "Letters and Letter Writing," and Art, "The Dutch Golden Age" (coming soon).

For families. Sources: KJV text of Luke 17, Philippians 1 and 4, 1 Thessalonians 5:18 and Proverbs 11:25; Kumar and Epley, "Undervaluing Gratitude: Expressers Misunderstand the Consequences of Showing Appreciation," *Psychological Science* (2018), summarized; National Gallery of Ireland for the Metsu pair and its history. Timing advice (within a week or so) is common modern guidance. The project asks students to mail real notes; please help with addresses and stamps, and consider writing a note of your own alongside.

PRACTICE

1. **EASY** How many of the ten lepers returned to give thanks, and what percentage is that? Who was he?
2. **EASY** Name the five parts of a thank-you note.
3. **MEDIUM** Improve this note: "Dear Uncle Joe, Thank you for the gift. I like it a lot. Love, Sam." The gift was a pocketknife, and Sam used it on a camping trip.
4. **MEDIUM** In Philippians 4:18, what does Paul name, and what does he compare the gift to?
5. **CHALLENGE** Using the primary source, explain why the nine who did not return were not necessarily disobedient, and yet why Jesus still asked, "where are the nine?" What does this teach about gratitude?
6. **CHALLENGE** After Christmas you have 14 notes to write. Each takes 12 minutes, and you will write for 36 minutes a day. (a) How many days will it take? (b) If you start on December 27, on what day do you finish? (c) Your aunt sent a sweater you do not like. Write the two most important sentences of an honest note.

Make it a game • Where Are the Nine? A leader reads aloud a list of ten everyday kindnesses ("Mom made your lunch," "a neighbor shoveled the walk," "a friend lent you a book"). After each, players race to say a specific, sincere thank-you sentence, with a real detail. A plain "thanks" does not count. Anyone who gives a vague answer must stand "afar off" until the next round. At the end, everyone writes the best sentence on a real card and gives it away that day.

Scripture. "I thank my God upon every remembrance of you." (Philippians 1:3, KJV)

Paul thanked God for the Philippians before he thanked them for their gift. A Christian's thank-you note gives thanks to the giver, but behind every giver it sees God, the giver of every good gift.

Practice: answers

1. One out of ten, or 10%. He was a Samaritan, a "stranger."
2. Salutation; thanks naming the gift or kindness; a specific detail; a word about the giver or relationship; a closing and signature.
3. Sample: "Dear Uncle Joe, Thank you so much for the pocketknife you sent for my birthday. I took it camping last weekend and used it to whittle tent stakes and cut rope, and Dad said it was the most useful thing in the pack. It means a lot that you remembered how much I like the outdoors. I hope we can go fishing together this summer. Love, Sam." It names the gift, gives a detail, mentions the relationship and looks ahead.
4. He names the gift ("the things which were sent from you") and the messenger (Epaphroditus), and compares the gift to "an odour of a sweet smell, a sacrifice acceptable, wellpleasing to God."
5. Jesus had told them to go show themselves to the priests, and they were probably doing just that. But obedience to the instruction did not replace returning to the Healer to give thanks. Only the Samaritan let the gift bring him back to the Giver. Gratitude is not merely following the rules; it is turning back toward the one who gave, and Jesus notices whether we do.

6. (a) $36 \div 12 = 3$ notes a day; $14 \div 3 = 4 \frac{2}{3}$, so 5 days. (b) December 27, 28, 29, 30, 31: you finish on December 31. (c) Sample: "Thank you so much for the sweater you sent for Christmas. It meant a great deal that you thought of me and took the time to choose and mail a gift." Nothing untrue is said.

3.8 PLAN AND HOST A SMALL PARTY, START TO FINISH

OBJECTIVES

- Plan a small gathering from purpose and guest list to clean-up and thank-you notes, using a written plan, budget and timeline.
- Scale recipes and estimate quantities and costs accurately with fractions and per-person arithmetic.
- Read Nehemiah 8:9–12 as a primary source on a God-centered feast that remembered those who had nothing, and apply it to the guest list.

Warm-up. Think of the best gathering you have ever been to (a birthday, a holiday, a church supper). Write down three things that made it good. How many of them were about the food, and how many were about the people and the welcome?

Video slot. Video coming. Planning a party: guest list, budget, timeline and scaling a recipe; Pieter Bruegel's The Peasant Wedding. Search approved channels (The Emily Post Institute, Kunsthistorisches Museum Wien, Khan Academy Smarthistory); preview first.

KEY TERMS

budget

A plan for spending: the total amount allowed, divided among items such as food, drinks, paper goods and decorations.

backward timeline

A schedule made by starting from the moment the party begins and working back, so each task is placed early enough to be finished on time.

scaling factor

The number a recipe is multiplied by to serve more or fewer people: $\text{new servings} \div \text{original servings}$.

per-person estimate

A planning rule giving how much of something one guest will use, multiplied by the number of people.

contingency

A backup plan for what might go wrong: rain, a late guest, a burnt dish, a food allergy.

portions

In Nehemiah 8, shares of food sent from the feast to people who had none prepared.

CORE IDEAS

Every stop on this trail comes together in one real event. A small party, with six to ten guests, is the right size for a first attempt. It is large enough to need a plan and small enough that the host can still talk to everyone. The plan has seven parts: **purpose and**

guests, budget, invitations, menu and shopping, timeline, the event itself, and afterward. Write each one down. A written plan frees the host's mind for the guests.

Start with purpose and guests. Why are you gathering: a birthday, a welcome for a new family, a thank-you to neighbors, a garden tea? The purpose decides almost everything else. Then make the list, remembering Jesus' words in Luke 14 to invite some who cannot repay. Read the primary source from Nehemiah 8. In about 445 BC, after the walls of Jerusalem were rebuilt, Ezra read the Law to the people, and they wept. Nehemiah told them to stop mourning and to feast: "eat the fat, and drink the sweet, and send **portions** unto them for whom nothing is prepared." A godly feast was joyful, and it remembered the people who had nothing. A family party can do the same. It can include a widow, a new family or a lonely student, or it can send a plate next door.

Next, set a **budget** and stick to it. Hospitality costs something, but it need not cost much. Proverbs 15:17 prefers "a dinner of herbs where love is" to a fattened ox served with hatred. Suppose a family allows \$60 for 12 people (8 guests and 4 family). That is \$5 a person. A simple menu of lemonade, sandwiches, fruit and one homemade cake easily fits. A **per-person estimate** helps with quantities. Common rules of thumb for a two-hour afternoon party are about 2 to 3 cups of drink per person, 3 or 4 small sandwich halves each, and one slice of cake each with a few extra. These are guides, not laws. Teenage boys eat more than grandmothers, and hot days mean more drinks.

Recipes must then be **scaled**. The **scaling factor** is new servings divided by original servings. A lemonade recipe that serves 8 needs a factor of $12 \div 8 = 1\frac{1}{2}$ to serve 12. So $\frac{2}{3}$ cup of sugar becomes $\frac{2}{3} \times 1\frac{1}{2} = 1$ cup, and 6 lemons become 9. Write the scaled quantities on a single shopping list grouped by store section, and check the pantry before buying. Ask guests about food **allergies** when they reply, and label any dish that contains nuts.

The **backward timeline** keeps the host from becoming Martha. Begin with the start time and work back: guests at 3:00; host dressed and sitting at 2:30; table set, ice in the cooler and sandwiches covered by 2:15; sandwiches made at 1:00; cake baked the day before; house cleaned and shopping done two days before; invitations mailed three weeks before. During the party, follow the order of Stops C5 and C6. Be at the door, greet by name, take coats, introduce every guest to someone, offer a drink, and then serve. Have one simple activity ready, such as a game, a walk in the garden or a question for the table, but let conversation lead. Then see guests to the door, as Abraham did.

Here is the honest complexity. Something will go wrong. It may rain, a guest may come early, a pitcher may spill, or a cake may sink. A **contingency** plan for the likely problems helps: a rainy-day room, a few extra chairs, a spare box of crackers, a towel near the drinks. But the host's calm matters more than any plan. Guests take their mood from the host. A host who laughs at a fallen cake and serves it in bowls with cream has given a better party than one who apologizes all afternoon. Remember, too, that the purpose is not to impress. If the host is exhausted and short-tempered with the family, the party has cost too much.

Afterward come clean-up, a short review and thank-you notes. Clean the same day, with everyone helping, and save leftovers for someone who would enjoy them. Write down what

worked, what you would change and how much you actually spent. Write thank-yous to anyone who brought a gift or helped. Then file the plan. The next party will be easier, and the habit of an open door, practiced over years, becomes what Peter called using “hospitality one to another without grudging.”

PICTURE STUDY



The Peasant Wedding, Pieter Bruegel the Elder, c. 1567 · Oil on panel · Kunsthistorisches Museum, Vienna
Wikimedia Commons · Public domain

Pieter Bruegel the Elder painted village life in the Netherlands with sharp eyes and good humor. This wedding feast is held in a barn, with sheaves of grain stacked against the back wall. Bruegel shows not only the guests but the work of hosting: carrying, pouring, serving and music. The bride sits quietly before a green cloth with a paper crown hanging above her.

Look closely

- Find the two men carrying bowls on a door taken off its hinges. Why might they have used a door?
- Find the man filling jugs at the lower left. How many people are working to serve this feast?
- Find the bride. How does the painter make her stand out in such a crowded room?

Talk about it

1. Make a list of every job you can see being done to serve this feast. Which jobs would your own party need, and who would do them?
2. The barn is crowded and the food is plain bowls of porridge or custard and bread. Does the feast look joyful anyway? What does that suggest about what makes a celebration?

Safety first. A grown-up must approve the party plan, the guest list and any cooking. Use oven mitts and keep handles turned in on the stove. Ask every guest about food allergies when they reply and label any dish with nuts. Never leave candles burning unattended, and keep them away from napkins and curtains.

HANDS-ON: THE PARTY PLAN: PLAN IT, HOST IT, REVIEW IT

Plan and host a real small gathering of six to ten guests, using everything from this trail. Turn in a complete written plan, then host the party, then write a review. This is the trail's capstone project and the centerpiece of the portfolio.

You will need

- A notebook or folder for the plan
- The invitations from Stop C4 (or new ones)
- Recipes, a calculator and a shopping list
- A budget agreed with a parent
- The primary source in this stop

Steps

1. **Purpose and guests.** Write the purpose in one sentence and the guest list with addresses. Following Nehemiah 8:10, include at least one person who might not otherwise be invited, or plan to send a plate to someone.
2. **Budget.** Agree on a total with a parent. Divide it among food, drink, paper goods and decorations. Find the cost per person.
3. **Invitations.** Send them about three weeks ahead with a reply date and a question about allergies. Keep a reply list.
4. **Menu and shopping.** Choose no more than four items. Scale each recipe with the scaling factor, make one combined shopping list and estimate its cost.
5. **Timeline.** Make a backward timeline from the start time to three weeks before. Name a family member for each task. Leave the last 30 minutes before guests arrive free.
6. **Contingency.** List three things that might go wrong and what you will do.
7. **Host the party.** Greet at the door, introduce every guest, serve, lead one activity and see guests out.
8. **Afterward.** Clean up, record the actual cost and write a half-page review: what went well, what to change, and one moment you will remember. Send thank-you notes where they are due.

Check your work

- My written plan has all seven parts and a parent signed the budget and guest list.
- My scaled recipes and shopping list are correct, and my actual spending was within budget (or I explained why not).

- I hosted the party, greeted and introduced every guest, and wrote my review and any thank-you notes.

FIELD NOTEBOOK

1. **Hospitality notebook, page 8.** Glue in your backward timeline and your budget, with planned and actual costs side by side.
2. Draw the room or table as it looked when the guests arrived, with labels.
3. **Narration.** Write one paragraph telling the story of your party: who came, what happened, what went wrong and how you handled it, and what you learned about hospitality. A parent keeps this paragraph.

Did you know? Historians still debate which man in *The Peasant Wedding* is the bridegroom. Some point to the young man pouring drink, some to the man passing bowls, and some think he is not shown at all. In Flemish custom of the time the groom might even serve at his own feast. The painting is nearly 4 feet tall and more than 5 feet wide, and it hangs in Vienna with the largest collection of Bruegel's paintings in the world.

Primary source. *Nehemiah 8:9–12, King James Version (1611):*

9 And Nehemiah, which is the Tirshatha, and Ezra the priest the scribe, and the Levites that taught the people, said unto all the people, This day is holy unto the LORD your God; mourn not, nor weep. For all the people wept, when they heard the words of the law.

10 Then he said unto them, Go your way, eat the fat, and drink the sweet, and send portions unto them for whom nothing is prepared: for this day is holy unto our Lord: neither be ye sorry; for the joy of the LORD is your strength.

11 So the Levites stilled all the people, saying, Hold your peace, for the day is holy; neither be ye grieved.

12 And all the people went their way to eat, and to drink, and to send portions, and to make great mirth, because they had understood the words that were declared unto them.

Go deeper.

- Norman Rockwell, *Freedom from Want* (1943): see it on the Norman Rockwell Museum's website (nrm.org); it is still under copyright, so look rather than copy. Compare its family dinner with Bruegel's feast.
- Kunsthistorisches Museum, Vienna (khm.at): collection page for *The Peasant Wedding*, with zoomable detail.
- Read Nehemiah 8 entire and the account of the Feast of Tabernacles that follows (verses 13–18).
- Second video topic: "How to scale a recipe with fractions" (preview first).

Goes deeper in. Arithmetic, “Fractions in Recipes,” and Small Business & Economics, “Budgets and Planning” (coming soon).

For families. Sources: KJV text of Nehemiah 8, Luke 14, Proverbs 15:17 and 1 Peter 4:9–10; Kunsthistorisches Museum for the painting (dated about 1567 or 1568). The date of Nehemiah 8 (about 445 BC) follows the usual reckoning from Nehemiah 2:1. Per-person quantities are rules of thumb; adjust for your guests. This project involves a real gathering: please approve the guest list, budget and kitchen work, supervise the stove and oven, and sign the plan. Nothing is sold in this stop.

PRACTICE

1. **EASY** Name the seven parts of a party plan in order.
2. **EASY** In Nehemiah 8:10, to whom were the people told to send portions?
3. **MEDIUM** A lemonade recipe serves 8 and uses 6 lemons, $\frac{2}{3}$ cup sugar and 5 cups water. Scale it for 12.
4. **MEDIUM** Guests arrive at 3:00. Working backward: you want to be sitting by 2:30, setting the table takes 15 minutes, and making sandwiches takes 1 hour 15 minutes. If the table is set last, when must you start the sandwiches?
5. **CHALLENGE** Budget \$60 for 12 people. Lemonade ingredients cost \$7.50 per batch of 8 servings; sandwiches cost \$1.25 per person; a homemade cake costs \$9; paper goods cost \$8. (a) How many lemonade batches do you need if each person drinks 2 servings? (b) Find the total cost. (c) Are you within budget, and what is the cost per person?
6. **CHALLENGE** Using the primary source and at least two other stops on this trail, write a four- or five-sentence answer: how should a Christian family’s party differ from a party meant only to impress?

Make it a game · Party Planner’s Race. Write twenty party tasks on slips of paper (mail invitations, bake cake, buy lemons, set table, greet guests, write thank-you notes, and so on). Teams race to lay them out in a correct backward timeline from “three weeks before” to “the day after.” The parent checks the order: one point for each task in a sensible place, minus a point for any task scheduled after it was needed. Then each team adds one contingency card (“It rains!”) for the other team to solve.

Scripture. “Use hospitality one to another without grudging. As every man hath received the gift, even so minister the same one to another, as good stewards of the manifold grace of God.” (1 Peter 4:9–10, KJV)

Peter calls hosts “stewards”: managers of what belongs to God. Our homes, food and time are His gifts, lent to us to be shared gladly, without grumbling.

Practice: answers

1. Purpose and guests; budget; invitations; menu and shopping; timeline; the event itself; afterward (clean-up, review, thank-you notes).

2. "Unto them for whom nothing is prepared": people who had no food of their own for the feast.
3. Factor $12 \div 8 = 1\frac{1}{2}$. Lemons $6 \times 1\frac{1}{2} = 9$; sugar $\frac{2}{3} \times 1\frac{1}{2} = 1$ cup; water $5 \times 1\frac{1}{2} = 7\frac{1}{2}$ cups.
4. Table set from 2:15 to 2:30; sandwiches must be finished by 2:15, so start at $2:15 - 1:15 = 1:00$ p.m.
5. (a) $12 \times 2 = 24$ servings; $24 \div 8 = 3$ batches. (b) Lemonade $3 \times \$7.50 = \22.50 ; sandwiches $12 \times \$1.25 = \15.00 ; cake \$9.00; paper goods \$8.00; total \$54.50. (c) Yes, \$5.50 under budget; $\$54.50 \div 12 \approx \4.54 per person.
6. Sample: A Christian family's party aims at love and fellowship, not display. Like Nehemiah's feast, it is joyful and gives thanks to God, and it remembers people "for whom nothing is prepared," by inviting some who cannot repay (Luke 14) or sending portions. Like Jesus' words to Martha, it keeps the menu simple enough that the host can sit with the guests. Like Abraham and Benedict's monks, it welcomes every guest warmly at the door and sees them off. And it ends in gratitude, with thank-you notes, rather than in boasting.

TRAIL 3 BADGE QUIZ

The badge quizzes are optional. The student answers in writing without notes; a parent checks the answers against the key. Full sentences are expected for explanation questions, and work must be shown for calculations. Four right out of five earns the first badge quiz; five right out of six earns the second. Badges and the certificate are earned by completing the stops, not by scores.

Badge quiz 1 (Stops 1-5)

1. What does *philoxenia* mean, and what does the verb behind “given to” in Romans 12:13 add to the command?
2. Give three actions of Abraham in Genesis 18:1-8 that a host today could copy.
3. What exactly did Jesus correct in Martha, and what did He not correct? Give one fact from John 11-12 that shows Martha fairly.
4. List the six questions every invitation must answer, and explain why the excuses in Luke 14:18-20 were rude.
5. According to chapter 53 of Benedict’s Rule, how are guests to be received, and which guests need the greatest care?

Badge quiz 2 (Stops 6-8)

6. Introduce your friend Lucy Grant (age 14) to your grandfather, Mr. Walter Reed, putting the names in the correct order, and explain the order.
7. Name the next-in-line effect and give three of the five steps for remembering a name.
8. What fraction of the healed lepers returned to give thanks? Name the five parts of a thank-you note.
9. How should you thank someone for a gift you do not like?
10. A cookie recipe serves 24 and uses $\frac{3}{4}$ cup butter. Scale it for 36. What is the scaling factor, and how much butter is needed?
11. What did Nehemiah tell the people to do on the holy day (Nehemiah 8:10), and how can that shape a family’s party?

TRAIL CERTIFICATE: THE HOST’S PORTFOLIO AND TRAIL C CERTIFICATE

Assemble the eight Hospitality notebook pages and the eight narration paragraphs into a “Host’s Portfolio” with your name and the dates of each stop.

Include the complete party plan from Stop C8: purpose and guest list, budget (planned and actual), invitations, scaled recipes and shopping list, backward timeline, contingency plan and your written review.

Include copies or photographs of at least one invitation and two thank-you notes you actually sent.

Write a one-page essay: “What is hospitality?” Use at least two Scripture passages and one other primary source from the trail (Benedict or Emily Post), and say what is a lasting

principle and what is a custom of its time.

When the portfolio is complete, a parent reviews it with the rubric and signs the Trail C certificate.

- **Accuracy:** Scripture is quoted correctly in the KJV, facts and dates are right, and calculations for scaling, budget and timeline are correct.
- **Use of sources:** The essay quotes or cites primary sources accurately and separates lasting principles from customs of a particular time.
- **Practice:** The student actually hosted the party, sent real invitations and thank-you notes, and greeted and introduced guests well.
- **Craft:** Notes and invitations are neat and complete; the plan is clear and organized; narrations are clear paragraphs in the student's own words.

Answer key

1. "Love of strangers." The verb means "pursuing," so Christians should actively seek out chances to be hospitable, not only receive guests who arrive.
2. Any three: he noticed the guests and ran to meet them; bowed and urged them to stay; had water brought for their feet and let them rest in the shade; promised little but served much; served with his own hands and stood by while they ate; (verse 16) walked with them as they left.
3. He corrected her anxiety and complaint ("careful and troubled about many things"), not her serving or her welcome. In John 11:27 she confessed, "I believe that thou art the Christ, the Son of God," and in John 12:2 "Martha served" at a supper for Jesus.
4. Who, what, when, where, why, and how to reply. The guests had already accepted the first invitation; refusing when the feast was ready wasted the host's food and shamed him, and the excuses were thin.
5. Like Christ, with humility and charitable service (meeting them, washing hands and feet). The poor and pilgrims need the greatest care, because in them especially Christ is received.
6. "Grandfather, this is my friend Lucy Grant. Lucy, this is my grandfather, Mr. Reed." The older, more honored person's name is said first, and the younger person is presented to him.
7. The tendency to forget what was said just before your own turn to speak. Any three: attend, repeat it at once, use it in conversation, link it to a picture or person, review it later.
8. One in ten (10%). Salutation; thanks naming the gift or kindness; a specific detail; a word about the giver; a closing and signature.
9. Never say anything untrue about the gift; thank the giver sincerely for the kindness, thought and effort, with a true specific detail.
10. Factor $36 \div 24 = 1\frac{1}{2}$; butter $\frac{3}{4} \times 1\frac{1}{2} = \frac{9}{8} = 1\frac{1}{8}$ cups.
11. To eat, drink and rejoice, and to "send portions unto them for whom nothing is prepared." A family party can be joyful and God-centered while including or sending food to people who have nothing prepared.

HOSPITALITY AND HOME TRAIL D: HOSPITALITY AS A BUSINESS

The fourth trail of the Hospitality and Home track treats hospitality as honest work that can also earn a living. It begins with the trade of the Proverbs 31 woman, then walks a student through a complete bake sale: forecasting what to bake and how much, costing a recipe down to the cent, setting prices, making signs and making change. It follows inns through history, from the guest room at Bethlehem and the Good Samaritan's inn to the mail-coach inns of England and the modern bed-and-breakfast, and asks the student to design a pretend B&B. It closes with Lydia, the seller of purple who opened her home to the apostles, and with counting the profit and deciding what to save, give and spend.

This is the  **Expert** level, for ages 14 and up, at high-school depth. Each stop takes 35 to 50 minutes and includes primary sources (the King James Bible, Amelia Simmons's *American Cookery* of 1796, and John Wesley's sermon "The Use of Money"), real arithmetic with costs, markup, margin, occupancy and break-even, a picture study, a written narration that a parent keeps, and challenge problems with worked answers. Stops D2, D3, D4 and D8 build one bake-sale plan in four parts; a student may run a real sale with a parent's sign-off or work with pretend numbers.

Five stops earn the **Hospitality Expert badge, part 1**; eight stops earn part 2 and the **Trail D certificate**. Badges and the certificate are earned by doing the stops; the badge quizzes are optional checks.

BEFORE YOU BEGIN

- Work confidently with fractions, decimals and percents, including dividing money and rounding to the cent.
- Read a page of older English (the King James Bible or an eighteenth-century text) and write a paragraph summarizing it.

MASTERY CHECKLIST

- ☐ I can explain the household economy of Proverbs 31:13-24 and Lydia's use of her home and trade in Acts 16, citing the text.
- ☐ I can forecast demand, scale recipes and cost a recipe to find the cost per piece.
- ☐ I can set prices using markup and margin, make honest signs, and make change by counting up.
- ☐ I can trace the history of inns from the first century to the bed-and-breakfast and calculate occupancy and break-even for a pretend B&B.
- ☐ I can close the books on a sale, report profit honestly, and defend a plan to save, give and spend.

GO DEEPER: BOOKS, MUSEUM PAGES AND RESOURCES

- **Amelia Simmons, *American Cookery* (1796), Project Gutenberg**
(<https://www.gutenberg.org/ebooks/12815>): The first American cookbook, free to read. Primary source for Stops D2 and D3; good for costing old recipes.
- **Federal Reserve Education** (<https://www.federalreserveeducation.org>): Free lessons on money, prices, budgeting and saving for teens; supports Stops D4 and D8.
- **National Trust: The George Inn, Southwark**
(<https://www.nationaltrust.org.uk/visit/london/george-inn>): London's last galleried coaching inn, with history and photographs for Stop D5.
- **John Wesley, *The Works of the Rev. John Wesley*, Vol. 4, Project Gutenberg**
(<https://www.gutenberg.org/ebooks/68320>): Contains Sermon L, "The Use of Money," the primary source for Stop D8.
- **Carl Larsson, *A Home (Ett hem)*** (<https://www.worldcat.org>): Larsson's watercolors of his family's home, including the picture study for Stop D6. Look for it at the library.

4.1 THE PROVERBS 31 WOMAN'S TRADE

OBJECTIVES

- Read Proverbs 31:13–24 closely and map the woman's household economy: raw materials, labor, production, sale, investment and giving.
- Explain the setting of the poem: an acrostic in the book of Proverbs describing a household in ancient Israel, where home and workplace were the same place.
- Use the passage as evidence to argue how faithful work, honest trade and generosity fit together in Scripture.

Warm-up. List every job that happens in your home in one week: cooking, cleaning, mending, teaching, paying bills, growing things, earning money. Put a star by any job that brings money in. Now ask: three thousand years ago, which of these jobs would have been done inside the home? Keep the list for the project.

Video slot. Video coming. Proverbs 31 in its ancient setting: spinning with spindle and distaff, linen making, weaving and trade in ancient Israel. Search approved channels (The Bible Project, a Bible-lands museum channel, a living-history textile demonstration); preview first.

KEY TERMS

acrostic

A poem in which each line or verse begins with the next letter of the alphabet. Proverbs 31:10–31 has 22 verses, one for each letter of the Hebrew alphabet.

household economy

A home that produces goods as well as using them: food, cloth and tools were made, stored, traded and sold from the house itself.

spindle and distaff

The two hand tools of spinning. The distaff holds the loose wool or flax fibers; the spindle twists them into thread as it turns.

merchandise

Goods made or bought in order to be sold. Verse 18 says the woman “perceiveth that her merchandise is good.”

investment

Using money now to buy something that will produce more later. The woman buys a field and plants a vineyard “with the fruit of her hands.”

girdle

A sash or belt worn around the waist. In verse 24 she makes girdles and delivers them to the merchant to sell.

CORE IDEAS

Proverbs ends with a poem of twenty-two verses (31:10–31) praising “a virtuous woman.” It is an **acrostic**: in Hebrew, each verse begins with the next letter of the alphabet, from *aleph* to *tav*. The form says something by itself. This is wisdom “from A to Z,” a complete picture. The poem stands at the very end of a book that began by calling young men to seek Wisdom, who is pictured as a lady calling in the streets (Proverbs 1, 8 and 9). Here Wisdom is seen at work in an ordinary house, in wool and flax, fields and lamps, buying and selling.

To understand verses 13–24 we have to picture a **household economy**. In ancient Israel almost no one went “to work” in a separate building. The house was the farm, the workshop, the warehouse and the shop. Families grew grain, kept sheep and goats, pressed olives and grapes, and made their own cloth. A large household, like the one in this poem, also included hired or bound servants (“her maidens,” verse 15). The woman of such a house was not a hobbyist. She was managing a small enterprise that fed, clothed and employed many people.

Follow the chain of production in the passage. She “seeketh wool, and flax” (verse 13): the raw materials. She spins with the **spindle and distaff** (verse 19). Hand spinning was slow; historians estimate that it took many hours of spinning to make enough thread for a single garment, which is why spindles show up in almost every excavated house of the period. She weaves “coverings of tapestry” and “fine linen” (verses 22 and 24). Linen came from flax, which had to be pulled, soaked (retted), beaten and combed before it could even be spun. Each step added value to what came before.

Then she sells. “She maketh fine linen, and selleth it; and delivereth girdles unto the merchant” (verse 24). The Hebrew word for “merchant” here is literally “Canaanite,” because the trading peoples of the coast, such as the Phoenicians, were famous traders; the name had become a word for a dealer. So her goods leave the household and enter a wider market. Verse 14 compares her to “the merchants’ ships” that bring food “from afar”: she buys wisely, not only from the nearest stall. Verse 18 shows her checking quality: she “perceiveth that her **merchandise** is good.” A trader who knows her goods are good can set a fair price and stand behind it.

Profit is not wasted. In verse 16 she “considereth a field, and buyeth it: with the fruit of her hands she planteth a vineyard.” Notice the order: she considers first, then buys. This is an **investment**. A vineyard takes three or more years before it bears a good crop, so planting one is a decision about the future, paid for by present work. In verse 20 her hands, the same hands that held the distaff, are stretched out “to the poor” and “to the needy.” Her trade makes giving possible. Generosity is not an afterthought to her business; it is part of what the business is for.

The poem also shows her diligence and foresight. She rises “while it is yet night” (verse 15); her lamp “goeth not out by night” (verse 18), which may mean she works late, or that the household always has oil, a sign of plenty. She is “not afraid of the snow” because her household is already clothed in scarlet, perhaps meaning warm, good-quality wool (verse 21). Her husband “is known in the gates” among the elders (verse 23); her good

management frees him for public service and adds to the family's good name. The poem praises a partnership, not a rivalry.

Some honest questions remain. Is this one real woman or an ideal portrait? Most interpreters read it as a portrait of what wisdom looks like in a home, not a checklist that every woman must complete in every season. No one could do all of it at once. The poem's own conclusion points to the root of it all: "a woman that feareth the LORD, she shall be praised" (verse 30). Her skill, her trade and her charity grow from her reverence for God. That is the foundation for this whole trail: running a business well is a way of serving God and neighbor.

PICTURE STUDY



The Milkmaid, Johannes Vermeer, c. 1658 · Oil on canvas · Rijksmuseum, Amsterdam
Wikimedia Commons · Public domain

Johannes Vermeer of Delft painted this small picture (about 18 by 16 inches) around 1658. A kitchen maid pours milk, probably to make a bread pudding from the stale bread on the table. Nothing dramatic happens, yet Vermeer treats her steady, careful work as worthy of the finest paint, including costly ultramarine blue made from ground lapis lazuli. The Dutch of his day prized a well-run household as a sign of a well-ordered life.

Look closely

- Follow the stream of milk. How does Vermeer make one second of careful work seem calm and lasting?
- Study the bread, the basket and the jug. What does the table tell you about thrift and the use of everything in the house?
- Look at the wall: nail holes, a cracked spot, a foot warmer on the floor. Why might a painter include such plain details?

Talk about it

1. Proverbs 31:27 says she “eateth not the bread of idleness.” Which details in the painting show diligence? Name three.
2. Vermeer used one of the most expensive pigments of his time on a servant’s apron. What does that choice suggest about how he valued ordinary work?

HANDS-ON: MAP THE HOUSEHOLD ENTERPRISE

Turn Proverbs 31:13–24 into a business flow chart, then compare it with your own home. Use the primary source box as your text.

You will need

- The KJV text of Proverbs 31:13–24 (in the Primary source box)
- A large sheet of paper or two facing notebook pages
- Colored pencils (four colors)
- Your warm-up list of household jobs

Steps

1. Read verses 13–24 aloud. In four colors, underline: raw materials or buying (color 1), making and labor (color 2), selling and trading (color 3), investing, giving or providing (color 4).
2. Draw a flow chart with boxes and arrows: wool and flax → spinning → weaving → linen and girdles → merchant → money → field and vineyard; add a side arrow from money to “the poor and needy” and one to “household clothed.” Write the verse number in each box.
3. Add a box for the people involved: maidens, household, merchant, husband at the gates, the poor. Draw lines showing who benefits from her work.
4. Below the chart, write two columns: “Done in the home then” and “Done in the home now,” using your warm-up list. Circle anything your family still produces at home.
5. Write a three-sentence conclusion: what makes this woman’s trade wise, according to the text?

Check your work

- Every box on my chart cites a verse number.
- My chart shows at least one investment and one act of giving.
- My conclusion uses words from the passage as evidence.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, explain how the Proverbs 31 woman’s household worked as a business: what she bought, what she made, what she sold, what she did with the profit and why. Quote at least two phrases from the KJV. A parent dates and keeps the page.

2. Sketch a drop spindle and distaff and label the fiber, the twist and the finished thread.
3. Start a "Trail D ledger" page in your notebook with columns for Date, Item, Money in, Money out. You will use it through Stop D8.

Did you know? Flax is one of the oldest cultivated fibers. Rahab hid the Israelite spies under "stalks of flax" drying on her roof (Joshua 2:6). Turning flax into linen took months: the plants were pulled (not cut), soaked to rot the stems, dried, beaten, combed and only then spun. Fine linen was so valued that the priests' garments in Exodus were made of it.

Primary source. *Proverbs 31:13-24, King James Version (1611).*

13 She seeketh wool, and flax, and worketh willingly with her hands.
14 She is like the merchants' ships; she bringeth her food from afar.
15 She riseth also while it is yet night, and giveth meat to her household, and a portion to her maidens.
16 She considereth a field, and buyeth it: with the fruit of her hands she planteth a vineyard.
17 She girdeth her loins with strength, and strengtheneth her arms.
18 She perceiveth that her merchandise is good: her candle goeth not out by night.
19 She layeth her hands to the spindle, and her hands hold the distaff.
20 She stretcheth out her hand to the poor; yea, she reacheth forth her hands to the needy.
21 She is not afraid of the snow for her household: for all her household are clothed with scarlet.
22 She maketh herself coverings of tapestry; her clothing is silk and purple.
23 Her husband is known in the gates, when he sitteth among the elders of the land.
24 She maketh fine linen, and selleth it; and delivereth girdles unto the merchant.

Go deeper. Elizabeth Wayland Barber, *Women's Work: The First 20,000 Years* (1994), a readable history of ancient spinning and weaving (parents preview; it treats very ancient dates from a secular timeline). Edith Deen, *All of the Women of the Bible* (1955), which has a chapter on this passage. The Rijksmuseum's online page for *The Milkmaid* lets you zoom into every brushstroke. Second video topic: "How flax becomes linen, step by step."

Goes deeper in. Small Business & Economics, "Seven Small Businesses," and Literature, "Hebrew Poetry: Psalms and Proverbs" (coming soon).

For families. Sources: the KJV text above; standard commentaries (e.g., Derek Kidner, *Proverbs*, Tyndale) for the acrostic structure and the meaning of "merchant" (Hebrew *kena'ani*, "Canaanite," used for a trader). The meanings of "scarlet" (warm wool, or double-dyed cloth) and of the lamp in verse 18 are debated, and the stop presents them as possibilities. Estimates of spinning time vary widely, so no single figure is given. The stop reads the poem as an ideal portrait of wisdom in a home, which is the common view

among conservative commentators. Picture: Vermeer, *The Milkmaid*, Rijksmuseum SK-A-2344.

PRACTICE

1. **EASY** What is an acrostic, and how does Proverbs 31:10–31 use it?
2. **EASY** Name the two raw materials the woman seeks in verse 13 and the product each one becomes.
3. **MEDIUM** Which verse shows an investment, and why is it an investment rather than a purchase for immediate use?
4. **MEDIUM** Who are three groups of people who benefit from her work, according to verses 13–24?
5. **CHALLENGE** Verse 18 says she “perceiveth that her merchandise is good” and verse 24 says she sells to the merchant. Explain why knowing the quality of your goods matters before you sell. Give one way it protects the seller and one way it protects the buyer.
6. **CHALLENGE** A friend says, “Proverbs 31 is just about staying home and doing chores.” Using at least three verses from 13–24, write a reasoned reply.

Make it a game • Raw to Ready. Write each step of linen making on its own card: grow flax, pull, ret (soak), dry, beat, comb, spin, weave, sew, sell. Shuffle them. Players race to put the cards in order; then each player must say one sentence about how that step adds value. A second round: add “price” cards (\$1, \$5, \$20) and decide at which step the material is worth each price.

Scripture. “Give her of the fruit of her hands; and let her own works praise her in the gates.” (Proverbs 31:31, KJV)

The poem ends by asking that she receive the fruit of her own labor and be honored in public. Honest work deserves honest reward, and good work speaks for itself.

Practice: answers

1. A poem whose lines or verses begin with the letters of the alphabet in order. Proverbs 31:10–31 has 22 verses, each beginning with the next of the 22 letters of the Hebrew alphabet.
2. Wool, which becomes warm cloth and garments (such as the household’s scarlet clothing), and flax, which becomes linen (the “fine linen” of verse 24).
3. Verse 16: she buys a field and plants a vineyard with the fruit of her hands. A vineyard takes several years to bear a full crop, so she spends present earnings to gain future produce.
4. Any three: her household (fed and clothed, verses 15 and 21); her maidens (given a portion, verse 15); the poor and needy (verse 20); the merchant who resells her girdles (verse 24); her husband, who is known in the gates (verse 23).
5. If you know your goods are good, you can set a fair price and stand behind it. It protects the seller by building a reputation so that merchants come back and will pay a fair price; it protects the buyer from paying for poor work or being deceived. Selling goods you know are poor as if they were good would be a kind of false weight (Proverbs 11:1).

6. A strong answer notes that the home in the poem was a workplace: she buys raw materials (13), shops widely like merchant ships (14), manages workers (15), evaluates and buys land and plants a vineyard (16), checks the quality of her merchandise (18), manufactures cloth (19, 22, 24) and sells to traders (24), and gives to the poor (20). Her work is skilled, productive and public in its effects (her husband is known in the gates, 23), and it rests on the fear of the LORD (30).

4.2 PLAN A BAKE SALE: WHAT TO BAKE AND HOW MUCH

OBJECTIVES

- Forecast demand for a bake sale from attendance, the share of people who buy, and the average number of items per buyer.
- Choose a product mix using cost, shelf life, ease of baking in quantity, allergens and appeal.
- Scale a recipe up to a target quantity and build a baking schedule that works backward from the sale day.

Warm-up. Guess: if 120 people walk past a bake-sale table at a church picnic, how many cookies and bars should you bring? Write your guess and one sentence explaining it. At the end of the stop, compare it with a forecast you build step by step.

Video slot. Video coming. Planning a bake sale: choosing items, baking in batches, packaging and food-safety labels. Search approved channels (a 4-H or county extension office channel, King Arthur Baking, America's Test Kitchen); preview first.

KEY TERMS

demand forecast

A reasoned estimate of how much customers will buy, built from numbers such as attendance and past sales.

conversion rate

The share of people who pass by and actually buy. If 30 of 120 people buy, the conversion rate is 25 percent.

product mix

The set of different items a seller offers, chosen so they work well together in cost, time and appeal.

shelf life

How long a food stays fresh and safe to sell. A cookie that keeps a week gives you more baking days than a cream pie that keeps one day.

scaling

Multiplying every ingredient in a recipe by the same factor to make more or fewer. To make 3 batches, multiply every amount by 3.

cottage food law

A state or local rule that says which home-baked foods may be sold to the public and how they must be labeled. Rules differ from place to place.

CORE IDEAS

A bake sale is the smallest true business most young people ever run. It has customers, products, costs, prices and a deadline. Like every business, it begins not in the kitchen but with a question: who will buy, and how much? Bake too little and you sell out in twenty minutes and turn away willing buyers. Bake too much and you carry home trays of stale brownies, and the money spent on their ingredients is lost. The goal is a **demand forecast** that is good enough, not perfect.

A simple forecast uses three numbers. First, *traffic*: how many people will pass your table? A church picnic might draw 120; a homeschool co-op craft fair, 300. Ask the organizer, or count last year's crowd. Second, the **conversion rate**: what share will buy? At events where people already expect a bake sale, a third or more may buy; at a busy fair where you are one table among fifty, perhaps one in ten. Third, *items per buyer*: most people buy two or three things, one to eat now and one for later. Multiply: $120 \text{ people} \times 0.35 \times 2.5 \text{ items} = 105 \text{ items}$. Then add a cushion of about 10 to 20 percent for the case where things go better than expected, giving about 120 items.

Next comes the **product mix**. Professional bakers choose items by asking five questions. *Can I make it in quantity?* Drop cookies and pan bars can be made 24 or 48 at a time; decorated cupcakes take far longer per piece. *What does it cost?* Butter and chocolate are costly; oatmeal and flour are cheap. *How long does it keep?* **Shelf life** lets you spread baking over several days. *Does it travel well?* Frosting melts and pies tip. *Who can eat it?* Many families avoid nuts, and a label listing ingredients helps them choose. A strong mix usually has three to five items: a low-priced favorite (chocolate chip cookies), a bar that cuts many pieces from one pan (brownies or lemon bars), a bread such as banana bread sold whole or by the slice, and perhaps one special item that draws people in.

Old cooks thought about shelf life too. The primary source in this stop is a Christmas cookie recipe from Amelia Simmons's *American Cookery* (1796), the first cookbook written by an American and published in the United States. Simmons boasts that her cookies, kept in a crock in a damp cellar, become "finer, softer and better when six months old." She uses pearl ash, a form of potash refined from wood ash, to make the dough rise; baking soda took its place in the 1800s. Her quantities are large: three pounds of flour, a pound of butter and a pound and a half of sugar make a great many cookies. A household that baked this way was planning for months, not minutes.

Once you know how many of each item you want, **scale** the recipes. If a cookie recipe yields 36 and you want 72, double every ingredient. If you want 60, the factor is $60 \div 36 = 1.67$, which is awkward; it is usually easier to make two full batches and count the extras as cushion. Some things do not scale perfectly. Large batches of dough can overwhelm a home mixer, and an oven holds only so many sheets at once, so a "triple batch" may really mean three separate batches in a row. Baking powder and soda can be scaled straight for two or three batches, but bakers are cautious with very large batches.

Now build a schedule backward from the sale. The day before: pack and label, make signs, count out the change box. Two days before: bake the cookies and bars, which keep well. Three or four days before: buy ingredients with a shopping list made from your scaled recipes. A week before: confirm the table, the time and any rules. Write the schedule on a calendar and give every task an owner. Remember that one person can bake roughly three to four dozen cookies an hour once the dough is made, so 120 items is a real afternoon's work for a small team.

Finally, check the rules. In the United States most states have **cottage food laws** that allow certain home-baked goods, such as cookies, breads and fruit pies, to be sold, but some foods that must be kept cold, such as cream pies or cheesecakes, are usually not allowed. Some require a label with the baker's name and the ingredients. Many charity and church sales are treated more simply, but rules differ by state and county, so a parent should check before anything is sold. Planning honestly includes planning within the law (Romans 13:1).

PICTURE STUDY



A Woman Preparing Bread and Butter for a Boy, Pieter de Hooch, c. 1660-1663 · Oil on canvas · J. Paul Getty Museum, Los Angeles
Wikimedia Commons · Public domain

Pieter de Hooch painted quiet Dutch homes in Delft and Amsterdam. Here a mother prepares a snack for her son, who seems to be bowing his head for a short prayer before leaving for school. The room is plain, clean and orderly; the open doorway leads the eye outside into a bright courtyard and beyond.

Look closely

- Find the bread, the knife and the butter. How much food is being prepared, and how carefully?

- Follow the open doorways from front to back. How does de Hooch lead your eye through the house?
- Look at the boy's posture and hands. What might he be doing?

Talk about it

1. This painting shows food made for one person. A bake sale is food made for many strangers. What changes when you cook for a crowd instead of a family?
2. De Hooch shows a home where everything has its place. Why does order in a kitchen matter even more when you are baking 120 items?

Safety first. Kitchen safety: wash hands, tie back hair and keep raw eggs and flour (both can carry germs) away from ready-to-eat food. Use oven mitts and let an adult handle hot sheets if you are new to baking. Cool baked goods completely before wrapping. Label anything containing nuts, and keep nut items separate. Selling to the public requires a parent's approval and a check of local food rules.

HANDS-ON: BAKE-SALE PLAN, PART 1: FORECAST, MIX AND SCHEDULE

Write the first part of the bake-sale plan you will finish in Stops D3, D4 and D8. You may plan a real sale or a pretend one; a real sale needs a parent's sign-off.

You will need

- Notebook or a printed planning sheet
- Three to five family recipes with their yields
- A calendar
- A calculator

Steps

1. Choose your event (real or pretend) and write its date, place and expected traffic. Ask an adult or the organizer for the best traffic estimate you can get.
2. Build a forecast: $\text{traffic} \times \text{conversion rate} \times \text{items per buyer}$. Show your work and explain why you chose each number. Add a cushion of 10-20 percent.
3. Choose 3-5 products. For each, make a row in a table with: yield per batch, shelf life, cost level (low, medium, high), allergens, and how well it travels.
4. Divide your forecast among the products and calculate how many batches of each you need. Round up to whole batches.
5. Write a shopping list by scaling each recipe. Add up total flour, sugar, butter and eggs across all recipes.
6. Write a backward schedule from sale day with tasks, days and owners.
7. Parent sign-off line (for a real sale): "I have checked our local rules and approve this sale." Signature: _____ Date: _____

Check your work

- My forecast shows all three numbers and a cushion.
- My product table compares at least four features for each item.
- My shopping list totals match my scaled recipes.
- My schedule works backward from the sale and names who does what.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, explain how to decide what to bake and how much for a bake sale. Include the forecast formula, two features that make a good bake-sale item, and one thing you learned from Amelia Simmons’s 1796 recipe. A parent dates and keeps the page.
2. Sketch your bake-sale table from above: where each product sits, the price signs, the cash box and the helper’s chair.
3. In your Trail D ledger, list the ingredients you expect to buy. Leave the price column blank for Stop D3.

Did you know? Pearl ash, the leavening in Simmons’s recipe, was made by leaching wood ashes with water, boiling the liquid down and baking the residue. It was an important American export in the 1700s. Its use in baking was one of the first truly American contributions to cookery; later cooks switched to saleratus and then to baking soda, which works the same way when combined with something acidic.

Primary source. *Amelia Simmons, American Cookery (Hartford, 1796), “Christmas Cookey.” Project Gutenberg, ebook #12815.*

To three pound flour, sprinkle a tea cup of fine powdered coriander seed, rub in one pound butter, and one and half pound sugar, dissolve three tea spoonfuls of pearl ash in a tea cup of milk, kneed all together well, roll three quarters of an inch thick, and cut or stamp into shape and size you please, bake slowly fifteen or twenty minutes; tho’ hard and dry at first, if put into an earthen pot, and dry cellar, or damp room, they will be finer, softer and better when six months old.

Go deeper. Amelia Simmons, *American Cookery* (1796), free at Project Gutenberg (ebook #12815); the whole book is short and fun to read. The Library of Congress has digitized an original copy. Forrager.com keeps a state-by-state summary of cottage food laws (parents: confirm with your state’s agriculture or health department). Second video topic: “Baking in batches: how commercial bakeries scale recipes.”

Goes deeper in. Small Business & Economics, “Seven Small Businesses: The Bake Shop,” and Arithmetic, “Ratios and Scaling Recipes” (coming soon).

For families. Sources: Simmons text from Project Gutenberg #12815; Library of Congress on *American Cookery* as the first American cookbook. The forecast numbers (conversion rates, items per buyer, baking speed) are reasonable planning figures, not measured averages; your own event may differ, and the project asks students to explain

their choices. Cottage food rules vary by state and county and change often; please check them yourself before any real sale. Raw flour and raw egg cautions follow FDA and CDC food-safety guidance. Picture: de Hooch, Getty Museum.

PRACTICE

1. **EASY** Write the three-number formula for a simple bake-sale forecast.
2. **EASY** Give two reasons drop cookies are often a better bake-sale choice than decorated cupcakes.
3. **MEDIUM** A co-op fair expects 200 visitors. You estimate 20 percent will buy, and buyers average 3 items. How many items should you bring with a 15 percent cushion?
4. **MEDIUM** Your brownie recipe makes one 9-by-13 pan cut into 24 pieces. You want 70 brownies. How many pans do you bake, and how many extra brownies will you have?
5. **CHALLENGE** Simmons's Christmas cookie uses 3 lb flour, 1 lb butter and 1½ lb sugar. If a modern cook makes half a batch, how many ounces of each are needed? (1 lb = 16 oz.) Then explain why her recipe could be baked weeks before an event but a cream pie could not.
6. **CHALLENGE** Last year your bake sale sold out of cookies in 30 minutes but took home half the banana bread. This year traffic should be the same. Propose specific changes to your plan and explain the reasoning using the terms demand forecast and product mix.

Make it a game • Forecast Showdown. A parent describes an event in one sentence ("A rainy Saturday library sale, 80 visitors," "A sunny church picnic after the service, 150 people"). Each player writes a conversion rate and items per buyer and calculates a forecast. Players defend their numbers in one sentence each; the parent picks the most reasonable argument, not necessarily the biggest number.

Scripture. "Be thou diligent to know the state of thy flocks, and look well to thy herds. For riches are not for ever: and doth the crown endure to every generation?" (Proverbs 27:23-24, KJV)

A shepherd who counts his flock knows what he has and what he needs. A good planner counts customers, ingredients and hours before baking, because resources are limited and must be managed with care.

Practice: answers

1. Expected traffic × conversion rate × average items per buyer (then add a 10-20 percent cushion).
2. Any two: they are faster to make in quantity; they cost less per piece; they keep longer; they travel and stack well; they need no refrigeration or frosting.
3. $200 \times 0.20 \times 3 = 120$ items. $120 \times 1.15 = 138$ items (about 140).
4. $70 \div 24 = 2.92$, so bake 3 pans = 72 brownies, which gives 2 extra.
5. Half batch: flour 1½ lb = 24 oz; butter ½ lb = 8 oz; sugar ¾ lb = 12 oz. Her cookie is a dry, low-moisture, high-sugar dough that keeps (she says it improves for six months), while a

cream pie is moist, contains milk and eggs, and must be kept cold to stay safe, so it has a shelf life of a day or two.

6. A strong answer: last year's results are real demand data. Cookie demand was higher than forecast (selling out early means unknown extra demand), so increase cookie batches, perhaps by 50 percent or more; banana bread demand was about half of what was made, so cut it roughly in half or sell it by the slice. Adjust the product mix toward the item that sells, and record sell-out times and leftovers again this year to improve the next forecast.

4.3 COSTING A RECIPE: WHAT DOES ONE COOKIE COST?

OBJECTIVES

- Find the unit cost of each ingredient from a package price and size, and convert between units (pounds, ounces, cups, teaspoons).
- Calculate the total cost of a batch and the cost per piece: $\text{ingredients} \div \text{batch} = \text{cost per cookie}$.
- Explain what a simple ingredient cost leaves out (packaging, energy, waste and labor) and why that matters for pricing.

Warm-up. Pick up a bag of flour or sugar in your kitchen. Find its price on a receipt or online and its weight on the label. Before doing any math, guess: how much does the flour in one cookie cost? One cent? Ten cents? Write your guess.

Video slot. Video coming. Recipe costing for bakers: cost per unit, cost per batch, cost per serving. Search approved channels (a county extension office or 4-H channel, a culinary school channel, Khan Academy unit rates); preview first.

KEY TERMS

unit price

The cost of one unit of something, such as one ounce of flour. $\text{Unit price} = \text{package price} \div \text{package size}$.

batch cost

The total cost of all ingredients used in one batch of a recipe.

cost per piece

$\text{Batch cost} \div \text{number of pieces the batch makes}$. Also called cost per serving or cost per unit.

yield

How many pieces a recipe actually makes. Real yield is often a little less than the recipe says because of tasting, breakage and burnt edges.

direct cost

A cost tied to each item you make, such as ingredients and the bag it is sold in.

overhead

Costs that are not tied to one item but must still be paid, such as oven energy, table rental, signs and the baker's time.

CORE IDEAS

Jesus asked, "For which of you, intending to build a tower, sitteth not down first, and counteth the cost?" (Luke 14:28). A baker is building something too, one tray at a time. Before you can set a fair price, you must know what each item costs you to make. This is

called **costing**, and it is one of the first skills taught in any professional kitchen. Restaurants that do not cost their recipes often fail even when they are busy, because they sell some dishes for less than they cost.

Costing begins with the **unit price**. Stores sell ingredients in packages, but recipes use small amounts. Divide the package price by the package size to find the cost of one unit. Using sample prices (check your own store; prices change): a 5-pound bag of flour at \$4.00 costs $\$4.00 \div 5 = \0.80 per pound, or $\$0.80 \div 16 = \0.05 per ounce. A 4-pound bag of sugar at \$4.00 costs \$1.00 per pound. A pound of butter at \$5.00 costs \$1.25 per quarter-pound stick. A dozen eggs at \$4.20 costs \$0.35 per egg. Many grocery shelf tags already print the unit price in small type, so you can compare brands quickly.

Next, convert the recipe's measures into the units you priced. This is where most mistakes happen. Recipes say "2¼ cups flour," but the bag is sold by the pound. Bakers know that a cup of all-purpose flour weighs about 4¼ ounces when spooned and leveled, so 2¼ cups is about 9.6 ounces, or $9.6 \times \$0.05 = \0.48 . A cup of granulated sugar weighs about 7 ounces. Butter is easy: one stick is half a cup. Small amounts like a teaspoon of baking soda or salt cost only a cent or two, but count them anyway, because good habits are formed on small things (Luke 16:10).

Add every ingredient to get the **batch cost**, then divide by the **yield**. Here is the formula this whole stop rests on: *ingredients ÷ batch = cost per cookie*. Suppose a chocolate-chip recipe uses \$0.48 of flour, \$0.70 of sugar, \$2.50 of butter, \$0.70 of eggs, \$3.00 of chocolate chips, \$0.40 of vanilla and \$0.04 of soda and salt. The batch cost is \$7.82. If it makes 48 cookies, each costs $\$7.82 \div 48 \approx \0.163 , or about 16 cents. Notice which ingredients matter most: butter and chocolate are more than 70 percent of the cost. Changing the flour brand would hardly matter; changing the chocolate would.

Real **yield** is usually less than the recipe promises. Dough is tasted, a few cookies break, the last tray is small, and one or two burn. Many bakers plan on losing about 5 percent. If only 45 of your 48 cookies are good enough to sell, the true cost is $\$7.82 \div 45 \approx \0.174 . That extra cent looks small, but on 500 cookies it is \$5.00. Professional kitchens call this "waste," and they track it carefully.

Ingredients are only the **direct cost** you can see. A bake-sale cookie also needs a bag or a square of wax paper (perhaps 3 to 5 cents), a share of the label and sign supplies, and the gas or electricity for the oven. These shared costs are **overhead**. Then there is labor: the hours you spend. At a charity bake sale, volunteers usually give their time, so labor is not charged; but in a real bakery, labor is often the largest cost of all. An honest seller knows the difference between "what I spent on flour" and "what it really cost to make," even if he decides to give his time freely.

Costing old recipes is a good test of skill. Amelia Simmons's "Cookies" of 1796 (in the Primary source box) use a pound of sugar, two and a half pounds of flour and only four ounces of butter, flavored with coriander seed. Priced with today's sample figures, that is about $\$1.00 + \$2.00 + \$1.25 +$ about \$0.50 for coriander, soda and milk, roughly \$4.75. Rolled half an inch thick and cut into rounds, it might make five or six dozen. At 60 cookies,

each costs about 8 cents, half the cost of a modern chocolate-chip cookie, mostly because it uses so much less butter and no chocolate. Cheap ingredients were a necessity for most families of 1796, and they explain why sugar-and-flour cookies were so common.

PICTURE STUDY



The Vegetable Market at Amsterdam, Gabriël Metsu, c. 1660–1662 · Oil on canvas · Musée du Louvre, Paris
Wikimedia Commons · Public domain

Gabriël Metsu worked in Leiden and Amsterdam. In this busy scene on the Prinsengracht canal, buyers and sellers bargain over fresh vegetables. Every Dutch household cook in his day shopped at markets like this one and had to know what things cost, what was fresh, and when a price was fair.

Look closely

- Find the market woman with her wheelbarrow. What is she selling, and how are the goods displayed?
- Find two people who seem to be bargaining. What do their faces and hands suggest?
- Find the maid with a pail. Who might she be shopping for?

Talk about it

1. A seventeenth-century cook could not read a unit price on a shelf tag. How might she have compared prices and quality?
2. Why does knowing the cost of your ingredients make you a better buyer as well as a better seller?

Safety first. Kitchen safety: if you bake a test batch, wash hands, keep raw dough out of reach (do not eat raw flour or raw egg), and use oven mitts. When measuring ingredients

by weight, place the bowl on the scale before turning it on (or press “tare”).

HANDS-ON: BAKE-SALE PLAN, PART 2: THE COST SHEET

Make a cost sheet for one recipe from your bake-sale plan. If you have time, bake it and count your real yield. Then cost Amelia Simmons’s 1796 “Cookies” for comparison.

You will need

- Your recipe and a recent grocery receipt or online store prices
- A kitchen scale (optional, for checking cup weights)
- Calculator
- Ruled paper or a spreadsheet

Steps

1. Make a table with columns: Ingredient, Package price, Package size, Unit price, Amount used (in the same unit), Cost in recipe.
2. Fill in every ingredient, including salt, soda and vanilla. Use these conversions if needed: 1 lb = 16 oz; 1 cup flour $\approx$ 4.25 oz; 1 cup sugar $\approx$ 7 oz; 1 stick butter = 4 oz = $\frac{1}{2}$ cup; 1 tablespoon = 3 teaspoons.
3. Add the last column to get the batch cost. Divide by the stated yield to get cost per piece. Round to the nearest tenth of a cent.
4. Bake the recipe (or use a family member’s count from last time) and record the real yield. Recalculate the cost per piece.
5. Add a row for packaging (bags, labels) and divide it by the number of pieces too. Write your “full direct cost per piece.”
6. Cost the Simmons recipe in the primary source box using your store’s prices. Assume a yield of 60. Compare its cost per cookie with your recipe and explain the difference in two sentences.
7. Put a star by the ingredient that makes up the largest share of your batch cost.

Check your work

- Every ingredient has a unit price and a cost.
- I divided by the real yield, not only the recipe’s promise.
- I added packaging to get a full direct cost per piece.
- I compared my recipe with the 1796 recipe and explained the difference.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, teach a younger sibling how to find the cost of one cookie, using a real example with numbers. Explain unit price, batch cost and yield, and name one cost that ingredients alone leave out. A parent dates and keeps the page.

2. Draw a pie chart (by eye is fine) showing what share of your batch cost comes from each ingredient.
3. Fill in the price column of your Trail D ledger from Stop D2.

Did you know? Unit pricing on shelf tags spread in American grocery stores in the late 1960s and 1970s, and some states now require it. Before that, shoppers had to divide in their heads. Professional chefs still keep a “recipe costing card” for every dish and reprice it whenever ingredient costs change; a sharp rise in the price of butter or eggs can turn a profitable item into a loss.

Primary source. *Amelia Simmons, American Cookery (Hartford, 1796), “Cookies.” Project Gutenberg, ebook #12815.*

One pound sugar boiled slowly in half pint water, scum well and cool, add two tea spoons pearl ash dissolved in milk, then two and half pounds flour, rub in 4 ounces butter, and two large spoons of finely powdered coriander seed, wet with above; make roles half an inch thick and cut to the shape you please; bake fifteen or twenty minutes in a slack oven--good three weeks.

Go deeper. Your county extension office (search your state university’s extension site) often publishes free recipe-costing worksheets for cottage bakers. Karen Hess’s introduction to the 1996 facsimile of *American Cookery* (Applewood Books) explains Simmons’s ingredients. Khan Academy’s free lessons on unit rates are good practice for the math. Second video topic: “How restaurants calculate food cost percentage.”

Goes deeper in. Arithmetic, “Fractions in Recipes” and “Decimals and Money,” and Small Business & Economics, “Seven Small Businesses: Costs and Prices” (coming soon).

For families. Sources: Simmons text from Project Gutenberg #12815. All prices in this stop are sample figures for practice, not current market prices; please have your student use your own receipts or store. Cup weights (flour about 4.25 oz, sugar about 7 oz) follow King Arthur Baking’s published ingredient weight chart; flour weight varies with how it is scooped. The 60-cookie yield for the Simmons recipe is an assumption for the exercise; Simmons gives none. “Slack oven” means a moderate, cooler oven; “scum” means skim. The 5 percent waste figure is a common planning rule, not a fixed standard. Picture: Metsu, *Le Marché aux herbes d’Amsterdam*, Louvre INV 1460.

PRACTICE

1. **EASY** A 4-pound bag of sugar costs \$3.60. What is the price per pound and per ounce?
2. **EASY** A batch of oatmeal cookies costs \$5.40 in ingredients and makes 36 cookies. What is the cost per cookie?
3. **MEDIUM** Butter costs \$5.00 a pound. A recipe uses 1½ sticks. What does the butter cost? (4 sticks = 1 lb.)

4. **MEDIUM** The same \$5.40 oatmeal batch actually gives 33 sellable cookies. What is the real cost per cookie, and how much more is it than the planned cost?
5. **CHALLENGE** Cost Simmons's 1796 "Cookies" with these prices: sugar \$1.00/lb, flour \$0.80/lb, butter \$5.00/lb, coriander \$0.40 for the two spoonfuls, baking soda and milk together \$0.06. Find the batch cost and the cost per cookie for a yield of 60 and for a yield of 72.
6. **CHALLENGE** In the stop's chocolate-chip example (batch cost \$7.82, 48 cookies), butter costs \$2.50 and chips cost \$3.00. If butter rises 40 percent and chips rise 20 percent, what is the new cost per cookie? What percentage increase is that? Explain what a baker might do in response.

Make it a game • Price Detective. Gather five pantry items with prices (receipts or online). One player names an amount ("3 tablespoons of cocoa," "half a cup of oats," "2 eggs"). Everyone calculates the cost; the closest answer within one minute wins the round. Bonus point for anyone who catches a unit-conversion mistake.

Scripture. "For which of you, intending to build a tower, sitteth not down first, and counteth the cost, whether he have sufficient to finish it? Lest haply, after he hath laid the foundation, and is not able to finish it, all that behold it begin to mock him, Saying, This man began to build, and was not able to finish." (Luke 14:28-30, KJV)

Jesus used ordinary planning to teach about the cost of following Him. The lesson holds in small things too: a wise person counts the cost before beginning, so the work can be finished.

Practice: answers

1. $\$3.60 \div 4 = \0.90 per pound; $\$0.90 \div 16 = \0.05625 , about 5.6 cents per ounce.
2. $\$5.40 \div 36 = \0.15 , or 15 cents per cookie.
3. One stick costs $\$5.00 \div 4 = \1.25 . $1\frac{1}{2}$ sticks = \$1.875, about \$1.88.
4. $\$5.40 \div 33 \approx \0.1636 , about 16.4 cents, which is about 1.4 cents more per cookie than the planned 15 cents.
5. Sugar 1 lb = \$1.00; flour 2.5 lb $\times$ \$0.80 = \$2.00; butter 4 oz = $\frac{1}{4}$ lb $\times$ \$5.00 = \$1.25; coriander \$0.40; soda and milk \$0.06. Total \$4.71. Per cookie: $\$4.71 \div 60 \approx \0.0785 (about 7.9 cents); $\$4.71 \div 72 \approx \0.0654 (about 6.5 cents).
6. New butter cost $\$2.50 \times 1.40 = \3.50 (+\$1.00); new chip cost $\$3.00 \times 1.20 = \3.60 (+\$0.60). New batch cost $\$7.82 + \$1.60 = \$9.42$. Per cookie $\$9.42 \div 48 \approx \0.196 versus \$0.163: an increase of about 20 percent. A baker could raise the price, make slightly smaller cookies, use fewer chips, look for a better supplier or buy in bulk, or switch some sales to a cheaper item; an honest baker tells customers if the product changes.

4.4 PRICING, SIGNS AND MAKING CHANGE

OBJECTIVES

- Set prices using cost-plus pricing, markup and margin, and check them against what customers will pay.
- Design clear, honest price signs and choose prices that make change easy.
- Make change accurately by counting up, and plan a starting cash float.

Warm-up. Your cookie costs 17 cents to make. Write three possible prices: one that is too low, one that is too high, and one you think is right. For each, write one sentence explaining why.

Video slot. Video coming. How to count back change by counting up; how small businesses set prices (cost-plus, markup and margin). Search approved channels (Khan Academy, a Junior Achievement or 4-H channel, Federal Reserve Education); preview first.

KEY TERMS

cost-plus pricing

Setting a price by taking the cost of an item and adding an amount for profit.

markup

The amount added to cost, often given as a percent of the cost. A 17-cent cookie sold for 50 cents has a markup of 33 cents, about 194 percent of cost.

margin

Profit as a percent of the selling price. The same cookie has a margin of $33 \div 50 = 66$ percent.

bundle price

A lower price per item for buying several together, such as “3 for \$1.25.”

float

The money in the cash box at the start of a sale, kept in small bills and coins so you can make change.

just weight

An honest measure. In Scripture, using two sets of weights, one for buying and one for selling, is called an abomination to the LORD.

CORE IDEAS

Setting a price is a moral act as well as a mathematical one. The Law of Moses forbade a trader to carry “divers weights, a great and a small” (Deuteronomy 25:13): a heavy set for buying, so he received more, and a light set for selling, so he gave less. Archaeologists have found many stone weights from ancient Israel, some marked with their value, and some are

measurably off. The temptation is old. The command is simple: “a perfect and just weight, a perfect and just measure shalt thou have.” For a modern seller, that means the price on the sign is the price you charge, the item matches its description, and every customer gets the same deal.

The most common way to begin is **cost-plus pricing**. Take your full cost per item from Stop D3 and add an amount for profit. If a cookie costs 17 cents (with its bag), a price of 50 cents adds 33 cents. Business people describe this in two ways, and you must not mix them up. **Markup** compares the profit with the *cost*: $33 \div 17 \approx 194$ percent. **Margin** compares the profit with the *price*: $33 \div 50 = 66$ percent. A shop that says “we work on a 50 percent margin” means something very different from “we mark up 50 percent.” Bakeries commonly price so that ingredients are roughly a quarter to a third of the selling price, because labor, rent and equipment must also be paid.

Cost tells you the lowest sensible price, but customers decide the highest. This is the second check: *value-based pricing*. What will people gladly pay? Look at what a coffee shop charges for a cookie (often \$2.00 to \$4.00) and what a grocery store charges for a package (often 25 to 50 cents each). A homemade bake-sale cookie sits between them. At a charity sale, buyers often expect to pay a little more because they know the money is going to a good cause, but a price that feels unfair will still keep them away. A seller who prices too low leaves money on the table; one who prices too high carries cookies home.

Good prices also make the sale run smoothly. Use round numbers: 50 cents, \$1.00, \$2.50. Avoid prices like 65 cents that force you to count nickels and dimes in a crowd. A **bundle price** such as “3 for \$1.25” encourages people to buy more and still uses quarters. Price whole items (a loaf of banana bread at \$6.00) and pieces (a slice at \$1.00) so that the slice price is higher per bite; this rewards those who buy the whole loaf and covers the extra wrapping for slices. Write every price down before the sale and do not change it for friends: one honest price for all.

Signs are part of honest dealing. A good sign is large enough to read from six feet away, uses dark letters on a light background, and states the item, the price and any important ingredient warnings, such as “Contains nuts” or “Made with peanut butter.” Put the bundle deals on a separate sign. Group items by price. Many sellers add a short line about the cause (“All proceeds go to the youth mission trip”); if you say that, it must be true, and you must keep a record to prove it. Signs that mislead, such as calling a cookie “homemade” when it was bought, break the commandment against false witness as surely as a false weight.

Then there is the cash box. Start with a **float** of small bills and coins, because early customers often pay with \$10 and \$20 bills. A typical float for a small sale might be \$40: twenty \$1 bills, two \$5 bills and \$10 in quarters (40 quarters). Write the float amount down before the first sale; at the end, subtract it from the total in the box to find your actual takings. Keep one person in charge of the box, and keep it closed and out of reach of passing hands. If you accept phone or card payments, a parent should set up and manage the account.

Finally, make change by **counting up**, the way cashiers did for generations before registers did the subtraction. If a customer buys \$3.25 of baked goods with a \$5 bill, do not try to subtract in your head. Say the price, then add coins and bills until you reach what they paid: “\$3.25 ... \$3.50 (a quarter), \$3.75 (a quarter), \$4.00 (a quarter), \$5.00 (a dollar).” Hand the change over while saying the amounts aloud so the customer can check. Leave the customer’s bill on top of the box until the change is given, so no one can later dispute whether it was a \$10 or a \$20. Counting up is fast, accurate and honest, because both sides can see every coin.

PICTURE STUDY



The Money Changer and His Wife, Marinus van Reymerswaele, 1539 · Oil on panel · Museo del Prado, Madrid

Wikimedia Commons · Public domain

Marinus van Reymerswaele, a painter from the Low Countries (today's Netherlands), painted this scene in 1539 and repeated it in several versions. In his day coins came from many countries and were often clipped or worn, so a money changer weighed them on a balance to find their true value. The wife keeps the accounts in a ledger. The picture is both a study of careful business and, many scholars think, a gentle warning about loving money.

Look closely

- Find the balance. Why would a money changer need to weigh coins instead of counting them?
- Look at the wife's book. What might she be recording, and why is a written record important?
- Study the two faces. Are they calm, worried, eager? What do their expressions suggest?

Talk about it

1. How does this painting connect to Deuteronomy 25:13-16 and the command to have a “just weight”?
2. What is the difference between careful attention to money, which a good steward needs, and love of money, which Scripture warns against (1 Timothy 6:10)?

Safety first. Handling money: one person is in charge of the cash box; keep it closed and in sight at all times, and give it to a parent at the end. Do not handle money and then unwrapped food; use tongs, gloves or pre-wrapped items. Any real selling needs a parent’s permission.

HANDS-ON: BAKE-SALE PLAN, PART 3: PRICE LIST, SIGNS AND CHANGE DRILL

Set prices for every item in your bake-sale plan, make the signs, plan the float and practice making change until you can do it without mistakes.

You will need

- Your cost sheet from Stop D3
- Poster board or cardstock and dark markers
- Play money or real coins and bills (with a parent)
- A small box with dividers or an egg carton for coins

Steps

1. For each item, write the full cost per piece. Calculate a cost-plus price at two different markups (for example, 150 percent and 200 percent), then round each to an easy price (multiples of 25 cents).
2. Check value: look up what a nearby bakery or store charges for similar items. Choose your final price and write one sentence defending it.
3. For each item, calculate the margin at your chosen price: $(\text{price} - \text{cost}) \div \text{price}$.
4. Design one bundle price that still uses quarters, such as 3 for \$1.25 or 4 for \$1.50. Check that it still covers cost.
5. Make signs: item, price, any allergens. Test them by reading them from six feet away.
6. Plan a float in small bills and quarters. Write the total and the count of each kind of bill and coin.
7. Run a change drill with a parent acting as customer: at least ten sales with different totals and bills. Count up aloud each time. Record any mistakes and do five more until you make none.
8. Parent sign-off line (for a real sale): “I have reviewed the prices, signs and cash plan.”
Signature: _____ Date: _____

Check your work

- Every price covers its cost and is a round amount.

- I can explain the difference between markup and margin with my own numbers.
- My signs are readable from six feet and list allergens.
- I made change correctly at least ten times in a row by counting up.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, explain how you set your bake-sale prices and how you will make change. Use the words cost, markup, margin and float, give one example with numbers, and explain how Deuteronomy 25:13–16 applies to a seller today. A parent dates and keeps the page.
2. Draw a small copy of your best price sign.
3. Record your float in the “Money out” column of your Trail D ledger (it comes back at the end).

Did you know? The Bible’s main weight, the shekel, was a measure of weight before it was a coin. Archaeologists have found many small dome-shaped stone weights from Judah marked with a sign for the shekel and numbers. Studies of these weights show they were close to one another but not perfectly equal, a reminder of why the Law demanded a “perfect and just” weight. Today the United States keeps national weight and measure standards at the National Institute of Standards and Technology (NIST), and local inspectors still check store scales.

Primary source. *Deuteronomy 25:13–16, King James Version (1611).*

13 Thou shalt not have in thy bag divers weights, a great and a small.
 14 Thou shalt not have in thine house divers measures, a great and a small.
 15 But thou shalt have a perfect and just weight, a perfect and just measure shalt thou have: that thy days may be lengthened in the land which the LORD thy God giveth thee.
 16 For all that do such things, and all that do unrighteously, are an abomination unto the LORD thy God.

Go deeper. Federal Reserve Education (federalreserveeducation.org) has free lessons on money and prices for teens. NIST’s Office of Weights and Measures website explains how scales and gas pumps are inspected. The Prado’s online page for *The Money Changer and His Wife* has a zoomable image. Second video topic: “How cashiers counted change before electronic registers.”

Goes deeper in. Small Business & Economics, “Seven Small Businesses: Setting a Price,” and Arithmetic, “Percents and Money” (coming soon).

For families. Sources: KJV text above; on Judahite shekel weights, Raz Kletter’s published studies of inscribed weights and standard Bible-background references. The bakery rule of thumb (ingredients about a quarter to a third of price) is a common guideline, not a law; actual food-cost percentages vary. Price comparisons are typical

ranges, not quotes. Reymerswaele painted several versions of this subject; the Prado's is dated 1539 and is inventory P002102. Scholars debate how much moral criticism the artist intended; the stop presents it as a possibility. Card or app payments: please manage any accounts yourself.

PRACTICE

1. **EASY** A customer buys items totaling \$2.75 and pays with a \$5 bill. Count up the change aloud and say how much it is.
2. **EASY** What is the difference between markup and margin?
3. **MEDIUM** A brownie costs 30 cents to make. You sell it for \$1.00. Find the profit per brownie, the markup and the margin.
4. **MEDIUM** Cookies sell for 50 cents each or 3 for \$1.25. What is the price per cookie in the bundle, and how much does a buyer save on 6 cookies by buying two bundles?
5. **CHALLENGE** You want a 60 percent margin on banana bread slices that cost 38 cents each (with wrapping). What is the lowest price that gives at least that margin, and what easy price would you choose? Show the algebra.
6. **CHALLENGE** At the end of a sale the cash box holds \$186.50. The float was \$40. The cost sheet says ingredients and packaging cost \$52.30. How much did you take in, and what was your profit? Then explain why a seller who forgets the float would make a serious error, and how this connects to keeping “just” records.

Make it a game · Count Up Relay. Two teams, each with a cash box of play money. A caller announces a purchase (“\$3.75, paid with a ten”). One player from each team counts up the change aloud and hands it to the caller. Correct and clearly spoken earns two points; correct but silent earns one; wrong earns none. Rotate players. Final round: the caller deliberately says a price that is not on the sign, and the first player to say “That’s not our price” wins a bonus.

Scripture. “A just weight and balance are the LORD’s: all the weights of the bag are his work.” (Proverbs 16:11, KJV)

Honest measures belong to God because He is just. When we price fairly, label truly and give exact change, even a bake-sale table reflects His character.

Practice: answers

1. “\$2.75 ... \$3.00 (one quarter), \$4.00 (one dollar), \$5.00 (one dollar).” Change: \$2.25 (one quarter and two \$1 bills).
2. Markup is profit as a percent of cost; margin is profit as a percent of the selling price.
3. Profit 70 cents. Markup = $70 \div 30 \approx 233$ percent. Margin = $70 \div 100 = 70$ percent.
4. $\$1.25 \div 3 \approx 41.7$ cents each. Six singly cost \$3.00; two bundles cost \$2.50; saving 50 cents.
5. Margin = $(P - C) \div P = 0.60$, so $P - 0.38 = 0.60P$, $0.40P = 0.38$, $P = \$0.95$. The lowest price is 95 cents; round up to \$1.00, which gives a margin of 62 percent.

6. Takings = $\$186.50 - \$40.00 = \$146.50$. Profit = $\$146.50 - \$52.30 = \$94.20$. Forgetting the float would overstate takings by \$40, making the sale look more profitable than it was; if money were promised to a cause, that would be reporting a false number. Honest records, like honest weights, show exactly what came in and went out.

4.5 INNS THROUGH HISTORY: BETHLEHEM, COACHING INNS AND THE BED-AND-BREAKFAST

OBJECTIVES

- Compare the two Greek words Luke uses for “inn” and explain what each tells us about lodging in the first century.
- Trace paid hospitality through history: ancient inns, monastery guesthouses, medieval and coaching inns, and the modern bed-and-breakfast.
- Explain how changes in travel (roads, mail coaches, railways, cars) created and destroyed kinds of inns.

Warm-up. When your family travels and needs a place to sleep, where do you stay? List every kind of lodging you know (relatives, hotels, motels, campgrounds, cabins, B&Bs). For each, write one thing travelers in the year 1800 would have found strange about it.

Video slot. Video coming. The George Inn, Southwark: London’s last galleried coaching inn; the mail coach era in England. Search approved channels (National Trust, Postal Museum London, English Heritage, a British history channel); preview first.

KEY TERMS

kataluma

A Greek word in Luke 2:7, translated “inn” in the KJV. It means a lodging place or guest room; Luke uses the same word in 22:11 for the “guestchamber” of the Last Supper.

pandocheion

A Greek word in Luke 10:34 meaning a public inn, literally a place that “receives all.” Its keeper is the “host” of verse 35.

caravanserai

A walled roadside inn of the Near East and Central Asia, built around a courtyard where travelers and their animals stayed overnight.

coaching inn

An inn on a main road where stagecoaches and mail coaches stopped to change horses and feed and lodge passengers; common in Britain from the 1600s to the 1840s.

mail coach

A fast coach carrying the Royal Mail and a few passengers. The first ran from Bristol to London on 2 August 1784.

bed-and-breakfast

A private home, or a small inn run like one, that rents a few rooms for the night and serves breakfast in the morning.

CORE IDEAS

The most famous “no vacancy” in history is Luke 2:7: Mary “laid him in a manger; because there was no room for them in the inn.” Christmas pageants often show a grumpy innkeeper at a door, but Luke never mentions an innkeeper. The Greek word here is **kataluma**, which means a lodging place, often a guest room. Luke uses the same word for the upstairs “guestchamber” where Jesus ate the Last Supper (Luke 22:11). Many scholars think Joseph and Mary arrived at a crowded house, perhaps of relatives, in a town swollen with people returning for the census, and found the guest room full. Village houses in Judea often kept animals at night in a lower room or a cave beside the living space, with mangers nearby. Either way, the Son of God was born among the animals, and Luke wants us to notice the lowliness of it.

Luke knew the word for a real public inn and used it elsewhere. In the parable of the Good Samaritan, the Samaritan brings the wounded man “to an inn,” a **pandocheion**, a place that “receives all” (Luke 10:34). Its keeper, the “host,” takes payment: “two pence,” two Roman denarii. Since a denarius was a day’s wage for a laborer (Matthew 20:2), the Samaritan left about two days’ pay and promised more. Inns of this kind were common on Roman roads but had a poor reputation: travelers complained of bad food, dirty beds and dishonest keepers. That is one reason the early church urged Christians to open their own homes to traveling believers: “Be not forgetful to entertain strangers” (Hebrews 13:2).

Across the deserts of the Near East, merchants used the **caravanserai**, a square, walled courtyard with rooms around the sides, a well in the middle and space for camels. Great rulers built chains of them along trade routes a day’s journey apart. In Christian Europe, monasteries carried on the duty of hospitality. The Rule of St. Benedict (written in the 500s) told monks to receive every guest as if he were Christ, and many abbeys had a guesthouse and a guest-master. Pilgrims, traders and the poor could find a bed there, often for little or nothing.

As roads and trade grew in the later Middle Ages, commercial inns multiplied. In Geoffrey Chaucer’s *Canterbury Tales* (late 1300s), the pilgrims gather at the Tabard Inn in Southwark, across the Thames from London, and the jolly innkeeper, Harry Bailly, proposes their storytelling contest. In the 1600s regular **stagecoaches** began running on main roads, so called because they traveled in stages of about ten to fifteen miles, changing horses at each. The **coaching inn** became the great hub of travel: a wide archway for coaches, a cobbled yard, stables behind, and galleries above where guests reached their rooms. A busy inn might stable dozens or even hundreds of horses.

On 2 August 1784 a new kind of coach began a run from Bristol to London. John Palmer, a theater owner from Bath, had convinced the government that a fast, guarded coach could carry the post faster than mounted post boys. The **mail coach** did the trip in about sixteen hours, far quicker than before, and soon mail coaches ran across Britain on strict timetables. At each stage, ostlers swapped the horses in a few minutes. Better turnpike roads, built by engineers such as Thomas Telford and John McAdam, made the 1820s and 1830s the golden

age of coaching, with scheduled coaches averaging around ten miles an hour. Painters such as James Pollard made a living painting coaches outside famous inns.

Then the railways came. The Liverpool and Manchester Railway opened in 1830, and by the 1840s trains were carrying the mail and passengers on the main routes faster and more cheaply than any coach could. Within a generation most long-distance coaches had stopped running, and many coaching inns closed, were pulled down or became ordinary taverns. Railway hotels rose beside the new stations instead. A few old inns survive: the George Inn in Southwark, rebuilt in 1677 after a fire, still has one wing of its wooden galleries and belongs to the National Trust. It is the last galleried coaching inn in London.

The **bed-and-breakfast** is the newest member of the family and the most like the hospitality of a home. Families have always taken in paying lodgers, but in Britain the B&B became common in the twentieth century, especially after the Second World War, when more families took holidays by car and households in seaside and country towns let spare rooms. In the United States, “tourist homes” along highways served motorists in the 1930s to 1950s, and the modern B&B inn spread from the 1970s and 1980s. A good B&B joins business and hospitality: the guest pays, but is welcomed by name, shown to a clean room, and served breakfast at the host’s own table. In the next stop you will design one.

PICTURE STUDY



North Country Mails at the Peacock, Islington, James Pollard, 1821 · Oil on canvas · Yale Center for British Art, New Haven, Connecticut
Wikimedia Commons · Public domain

James Pollard (1792–1867) was born in Islington, then on the northern edge of London, and spent his career painting coaches, horses and road scenes. The Peacock Inn was the first stop for the mail coaches heading north out of London each evening, where they took on last

passengers and parcels. Pollard painted it in 1821, at the height of the coaching age, less than twenty years before railways began to replace the coaches.

Look closely

- Count the horses and coaches. How many teams can you find, and how are they harnessed?
- Find the guard at the back of a mail coach. Mail guards carried a horn and were armed to protect the mail. What is he doing?
- Look at the inn itself: its lit windows, its sign, the people in the doorway. What services might it offer?

Talk about it

1. From this painting, list at least five kinds of workers an inn and a mail coach needed. Which of them would lose their jobs when the railway arrived?
2. How does Pollard make an evening departure feel exciting? What details create motion and noise?

HANDS-ON: TIMELINE OF PAID HOSPITALITY

Build an illustrated timeline of inns from the first century to today, with evidence from the primary sources in this stop.

You will need

- A long strip of paper (tape sheets end to end) or two notebook pages
- Ruler and colored pencils
- The primary source box (Luke 2:4–7 and Luke 10:34–35)
- A map of Britain (print or atlas)

Steps

1. Draw a timeline from AD 1 to today. Mark at least eight events: Luke 2 (the birth at Bethlehem, about 5–4 BC; place it just before AD 1); the Good Samaritan parable (about AD 30); the Rule of St. Benedict (500s); Chaucer's Tabard Inn (late 1300s); first stagecoaches (1600s); the George Inn rebuilt (1677); the first mail coach (2 August 1784); Pollard's painting (1821); Liverpool and Manchester Railway (1830); mail by rail (1840s); B&Bs after 1945.
2. Read the two Luke passages in the primary source box. Under the first-century section, write a side-by-side comparison: the word, who runs it, whether money is paid, and what we learn about it.
3. Draw a simple plan of a coaching inn: archway, yard, stables, galleries, kitchen, dining room. Label each part.
4. On the map of Britain, draw the Bristol-Bath-London route of the first mail coach (about 115 miles). If coaches changed horses every 10 miles, how many changes would the trip need?

5. Write a three-sentence summary: what kept changing about inns, and what stayed the same?

Check your work

- My timeline has at least eight correctly placed events.
- My comparison uses both Greek words and evidence from the text.
- My inn plan labels at least five parts.
- My summary names a change and a constant.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, tell the history of the inn from the first century to the modern bed-and-breakfast. Include what Luke 2:7 and Luke 10:34 tell us, the coaching age, and why the railways changed everything. A parent dates and keeps the page.
2. Sketch a mail coach with four horses. Label the guard's seat, the coachman's box, the boot (luggage space) and the Royal Mail sign.
3. Add "two pence (two denarii) = about two days' wages" to your Trail D ledger notes.

Did you know? Mail coach guards carried a long horn to warn turnpike-gate keepers to open the gate, since mail coaches did not pay tolls and were not to be delayed. Charles Dickens set scenes of *The Pickwick Papers* (1836–1837) in old coaching inns, including the White Hart in Southwark, where Mr. Pickwick first meets Sam Weller. The book appeared just as the railways were ending the age it describes.

Primary source. *Luke 2:4–7 and Luke 10:34–35, King James Version (1611).*

4 And Joseph also went up from Galilee, out of the city of Nazareth, into Judæa, unto the city of David, which is called Bethlehem; (because he was of the house and lineage of David:)

5 To be taxed with Mary his espoused wife, being great with child.

6 And so it was, that, while they were there, the days were accomplished that she should be delivered.

7 And she brought forth her firstborn son, and wrapped him in swaddling clothes, and laid him in a manger; because there was no room for them in the inn.

34 And went to him, and bound up his wounds, pouring in oil and wine, and set him on his own beast, and brought him to an inn, and took care of him.

35 And on the morrow when he departed, he took out two pence, and gave them to the host, and said unto him, Take care of him; and whatsoever thou spendest more, when I come again, I will repay thee.

Go deeper. Kenneth E. Bailey, *Jesus Through Middle Eastern Eyes* (2008), chapter on the birth story and the meaning of *kataluma* (for older readers and parents). The Postal Museum, London (postalmuseum.org), online pages on mail coaches. National Trust, "The

George Inn” (nationaltrust.org.uk). Charles Dickens, *The Pickwick Papers*, chapter 10, free at Project Gutenberg (ebook #580). Second video topic: “How the railways changed Victorian Britain.”

Goes deeper in. History, “The Industrial Revolution and the Railways,” and Geography, “Roads, Routes and Trade” (coming soon).

For families. Sources: KJV text above; Bailey and standard commentaries on *kataluma*. The “guest room” reading is widely held but not certain; some scholars still read it as a public lodging place, and the stop presents both. The date of Christ’s birth (about 5–4 BC) follows the common reckoning from Herod’s death. On mail coaches: the Postal Museum gives 2 August 1784 for the first Bristol–London run; journey times in accounts range around 16–17 hours. Coaching speeds are averages for the 1830s. B&B history in Britain and the US is less well documented; dates are given as broad periods. Picture: Pollard, Yale Center for British Art, Paul Mellon Collection.

PRACTICE

1. **EASY** What Greek word does Luke use for “inn” in Luke 2:7, and where else does he use it?
2. **EASY** Why were they called “stagecoaches”?
3. **MEDIUM** How much did the Good Samaritan pay the host, and about how many days of a laborer’s wages was it?
4. **MEDIUM** The first mail coach covered about 115 miles from Bristol to London in about 16 hours. What was its average speed? If horses were changed every 10 miles, about how many changes were needed?
5. **CHALLENGE** Compare the two Luke passages as evidence. What does each tell us about lodging in first-century Judea, and why do many scholars think the Bethlehem “inn” was not a commercial inn with an innkeeper?
6. **CHALLENGE** Explain, as a chain of causes and effects, how the railways led to the decline of coaching inns. Then name one way the motor car later helped create the bed-and-breakfast.

Make it a game • Change the Horses!. Set up “stages” around the house or yard every ten paces. A rider carries a “mailbag” (a pillowcase with a letter in it). At each stage, a helper must hand over a fresh “horse” (a hobby horse, broom or simply a tag) and check the time on a stopwatch. Teams race to deliver the mail through all stages. Lost time at a stage costs a penalty, just as late mail coaches did.

Scripture. “Be not forgetful to entertain strangers: for thereby some have entertained angels unawares.” (Hebrews 13:2, KJV)

This verse recalls Abraham welcoming three visitors (Genesis 18). Whether we open our homes freely or run an inn for pay, the stranger at the door is to be treated with honor.

Practice: answers

1. Kataluma, a lodging place or guest room. He uses it in Luke 22:11 for the “guestchamber” of the Last Supper.
2. They traveled in stages, stopping every 10–15 miles at inns to change horses.
3. Two pence, that is two denarii; since a denarius was a day’s wage (Matthew 20:2), about two days’ wages, with a promise to repay any more.
4. $115 \div 16 \approx 7.2$ miles per hour. $115 \div 10 = 11.5$, so about 11 changes of horses (11 stops after the start).
5. Luke 10:34–35 describes a pandocheion, a commercial inn with a host who receives payment and gives care. Luke 2:7 uses a different word, kataluma, the same word he uses for a private guest room in 22:11, and mentions no keeper or payment. Since Luke knew and used the word for a commercial inn, his choice of kataluma suggests a guest room or lodging space, likely in a crowded house, with the manger in the area where animals were kept. The point stands either way: Christ was born in lowly circumstances.
6. Railways (from 1830) carried passengers and mail faster and cheaper → coaches lost customers and the mail contracts (1840s) → coach companies closed → inns lost their stopping trade, their stabling business and their workers’ jobs → many closed or became local taverns, while hotels were built near stations. The car let families travel on their own schedule to small towns and the countryside, away from railway hotels, so households along the routes could let spare rooms with breakfast, creating the B&B trade.

4.6 DESIGN A PRETEND BED-AND-BREAKFAST

OBJECTIVES

- Design a pretend bed-and-breakfast: rooms, guest services, a breakfast menu and a price list.
- Calculate cost per occupied room, occupancy rate and a monthly break-even point.
- Explain how a host balances warm hospitality with the honest demands of running a business.

Warm-up. Imagine a family friend is coming to stay three nights. Walk through your house as if you were the guest. Write down five things a guest would notice, good or bad, from the front door to the bed to the breakfast table.

Video slot. Video coming. A day in the life of a bed-and-breakfast innkeeper: preparing rooms, cooking breakfast, welcoming guests. Search approved channels (a state tourism or bed-and-breakfast association channel, a hospitality-school channel, Carl Larsson-gården museum); preview first.

KEY TERMS

room rate

The price charged for one room for one night. B&B rates usually include breakfast.

occupancy rate

The share of available room-nights that are actually sold. If 3 rooms are open 30 nights (90 room-nights) and 54 are sold, occupancy is $54 \div 90 = 60$ percent.

variable cost

A cost that rises with each guest, such as breakfast food, laundry and soap.

fixed cost

A cost that must be paid whether or not guests come, such as insurance, a license, mortgage or rent, and website fees.

break-even point

The number of sales needed so that income exactly covers all costs. Above it is profit; below it is loss.

amenity

A comfort or service offered to guests beyond the bed itself, such as a reading chair, fresh flowers, a garden or a packed lunch.

CORE IDEAS

A bed-and-breakfast is the meeting point of everything in this track. It is a home that receives strangers, a kitchen that cooks for others, a table where guests are served, and a business that must pay its bills. That is why it is a good subject for design. In this stop you

will create a pretend B&B on paper. Real ones need licenses, inspections, insurance and food-safety permits, and the rules differ from town to town; your design is practice in thinking like a host and like an owner at the same time.

Start with the guest. Who will come, and why? A B&B near a battlefield park will draw history lovers; one near a lake will draw fishermen and families; one in a city may draw people visiting a hospital or a college. The guest decides almost everything else: the number and size of rooms, whether children are welcome, what breakfast looks like, and how much people will pay. Good innkeepers have always known their travelers. A coaching inn of 1820 needed stables and a fast kitchen; a B&B today may need quiet rooms, strong internet and a place to leave muddy boots.

Next, the rooms. Most B&Bs have between two and eight. Each needs a bed, good light, a place for luggage, hooks or a closet, and, today, usually a private bathroom. Many innkeepers name their rooms (“The Garden Room,” “The Captain’s Room”) and give each a character. Think about what makes a room restful: clean linens, a reading lamp, a window, quiet. Small **amenities** such as fresh flowers, a carafe of water or a local map cost little but say “you were expected.” Hospitality in Scripture is not grudging (1 Peter 4:9); the details show it.

Breakfast is the signature of the house. It is the one meal the guest is sure to eat with you, so it carries the hospitality of the whole stay. Plan a menu of two or three hot dishes that you can cook well and repeat (an egg dish, pancakes or French toast, a baked oatmeal), plus fresh fruit, bread or muffins, coffee, tea and juice. Ask guests ahead about allergies. Then *cost* the menu as you learned in Stop D3: if a breakfast of eggs, toast, fruit, juice and coffee costs about \$4.50 a person in food, a room for two costs \$9.00 in breakfast every night it is filled.

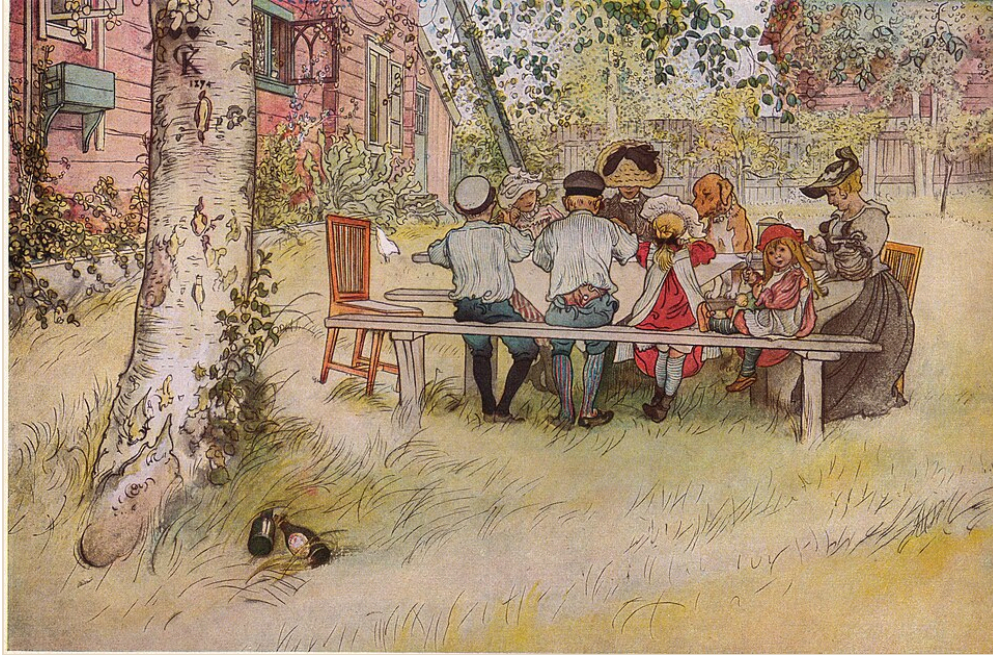
Now the numbers. Every occupied room has **variable costs**: breakfast food, laundering sheets and towels, soap and supplies, and a share of cleaning time. Suppose these come to \$35 per occupied room-night. Then there are **fixed costs** that come every month whatever happens: insurance, licenses, website and booking fees, extra utilities, repairs. Suppose they are \$1,800 a month. If your **room rate** is \$140 a night, each room-night sold contributes $\$140 - \$35 = \$105$ toward fixed costs. Divide: $\$1,800 \div \$105 \approx 17.1$, so you must sell 18 room-nights a month just to **break even**. With 3 rooms open 30 nights (90 room-nights), that is an **occupancy rate** of 20 percent. Every room-night above 18 adds \$105 of profit.

Real B&Bs are harder than this simple model. Demand rises and falls with the seasons: a lakeside inn may be full every summer weekend and empty in February. Rooms must be cleaned and beds changed even on the busiest day. And the innkeeper’s own labor, cooking at six in the morning and washing sheets at night, is rarely counted in the variable cost. Many owners say a small B&B provides a good home and a modest income, not great wealth. Honest planning means building your price list on realistic occupancy, not on a dream of full rooms every night.

Finally, write a price list that is clear and fair. State the nightly rate for each room, what is included (breakfast, parking), any extra charges (an extra guest, a late check-out), the check-

in and check-out times, and the cancellation policy. Many inns charge more on weekends and in peak season and less in the off-season. Whatever you charge, say it plainly before the guest books. The Proverbs 31 woman's merchandise was "good," and she sold it openly; a good innkeeper gives full value and hides nothing in the fine print.

PICTURE STUDY



Breakfast under the Big Birch, Carl Larsson, 1896 · Watercolor · Nationalmuseum, Stockholm
Wikimedia Commons · Public domain

Carl Larsson was a Swedish painter who lived with his wife Karin and their eight children in a cottage called Lilla Hyttnäs in the village of Sundborn. He painted their everyday life in a series of watercolors later published as the book *Ett hem* (*A Home*, 1899). Here the whole household eats breakfast at a long table set outdoors in summer. The Larssons' home, decorated by Karin and Carl together, became famous for its bright, welcoming rooms.

Look closely

- Count the people at the table. Who is being served, and who is serving?
- Look at the table: the cloth, the dishes, the food. How has it been prepared to make the meal feel special?
- Find the house in the background. What does the painting suggest about the family's life together?

Talk about it

1. If you ran a B&B, what two ideas from this painting would you borrow for your breakfast? Why?
2. Larsson painted his real home, but he chose what to show. What might a guest see in a real household that a painting leaves out?

HANDS-ON: B&B BROCHURE AND BUSINESS PLAN

Design a pretend bed-and-breakfast and present it in two parts: a brochure for guests and a one-page business plan for the owner. This is a pretend business only.

You will need

- Paper folded in thirds (for the brochure) or a computer drawing program
- Colored pencils or photographs
- Calculator and ruled paper
- Your costing method from Stop D3

Steps

1. Choose a place (real or imaginary) and the kind of guest you expect. Write two sentences about why guests come there.
2. Design 3 to 5 rooms. Give each a name, a bed size, a short description and two amenities. Draw a floor plan of the house showing guest rooms, the breakfast room and the family's private space.
3. Write a breakfast menu with at least two hot dishes, plus breads, fruit and drinks. Cost one full breakfast per person using sample prices.
4. List your variable costs per occupied room-night (breakfast for two, laundry, supplies, cleaning) and your monthly fixed costs. Use realistic sample figures and say where they came from.
5. Set a room rate for each room and an off-season rate. Calculate the break-even number of room-nights per month and the occupancy rate it requires.
6. Calculate profit at 40 percent and 70 percent occupancy.
7. Make the brochure: front cover with name and picture; inside with rooms, breakfast menu and a price list including times and policies; back with a short welcome from the host and a Scripture verse on hospitality.

Check your work

- My brochure includes rooms, menu, a clear price list and policies.
- My business plan shows variable costs, fixed costs, break-even and occupancy.
- My prices are realistic for the guests I described.
- My brochure promises only what the B&B would really give.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, describe your pretend B&B as if you were welcoming a guest, then explain in numbers how it would pay its bills. Use the terms room rate, occupancy, variable cost, fixed cost and break-even. A parent dates and keeps the page.
2. Sketch your breakfast table set for four guests, with the dishes labeled.
3. In your Trail D ledger notes, write your break-even calculation.

Did you know? Carl and Karin Larsson's home in Sundborn, Sweden, is still owned by their descendants and is open to visitors as Carl Larsson-gården. The book *Ett hem* (1899) helped shape the bright, simple "Swedish style" of home decorating that is still popular today. In the hotel trade, the measure "revenue per available room" (RevPAR) combines rate and occupancy in one number: average rate $\times$ occupancy rate.

Go deeper. Carl Larsson, *A Home (Ett hem)*, available in modern reprints and at many libraries; it is mostly pictures with Larsson's short notes. Carl Larsson-gården's website (clg.se) has photographs of the house. Your state's tourism office or bed-and-breakfast association often lists inns you can look at online for ideas on room descriptions and pricing. Second video topic: "How hotels clean and prepare a room between guests."

Goes deeper in. Small Business & Economics, "Seven Small Businesses: The Inn" and "Fixed and Variable Costs," and Art, "Watercolor and the Domestic Scene" (coming soon).

For families. Sources: Nationalmuseum, Stockholm, and Carl Larsson-gården for the painting and the Larsson home. All costs, rates and occupancy figures are sample numbers for practice; real B&B income varies widely by place and season. Running a real B&B requires local zoning approval, business and lodging licenses, health inspections and insurance; this stop is a design exercise only, and no guests should be taken in. There is no primary source in this stop, because the modern B&B has no single founding document; the Luke passages in Stop D5 and Acts 16 in Stop D7 supply the Scripture background. Picture: Larsson, *Frukost under stora björken* (1896), from the *Ett hem* series.

PRACTICE

1. **EASY** Give one example of a variable cost and one example of a fixed cost for a B&B.
2. **EASY** A B&B has 4 rooms open for 30 nights. How many room-nights are available? If 60 are sold, what is the occupancy rate?
3. **MEDIUM** A breakfast costs \$4.50 per person. Laundry and supplies cost \$14 per occupied room, and cleaning is valued at \$12 per room. What is the variable cost for a room with two guests?
4. **MEDIUM** Using a \$140 rate, \$35 variable cost and \$1,800 monthly fixed costs, what is the profit in a month with 50 room-nights sold?
5. **CHALLENGE** In the off-season the same B&B lowers its rate to \$110. Variable costs stay at \$35 and fixed costs at \$1,800. How many room-nights must it sell to break even, and what occupancy rate is that for 3 rooms over a 31-night month?
6. **CHALLENGE** An owner wants to add a \$25 "welcome basket" to every stay to make guests feel at home. The average stay is 2 nights. Calculate how this changes the variable cost per room-night, then argue for or against the idea, weighing hospitality and business.

Make it a game · Innkeeper's Night. One player is the innkeeper with 3 room cards; others are guests who draw cards with a request ("Two nights, needs a ground-floor

room,” “Gluten-free breakfast,” “Arriving at 11 p.m.,” “Asks for a discount”). The innkeeper must respond kindly, honestly and within the B&B’s rules, then record the stay and its income in a ledger. After five guests, total the income and occupancy. Rotate the innkeeper role.

Scripture. “Through wisdom is an house builded; and by understanding it is established: And by knowledge shall the chambers be filled with all precious and pleasant riches.” (Proverbs 24:3-4, KJV)

A house is built by wisdom, made firm by understanding and filled by knowledge. A welcoming home, or an inn, needs all three: the wisdom to serve others, the understanding to plan, and the knowledge to keep it running well.

Practice: answers

1. Variable: breakfast food, laundry, soap and toiletries, cleaning per stay. Fixed: insurance, license fees, mortgage or rent, website fees, regular repairs.
2. $4 \times 30 = 120$ room-nights. $60 \div 120 = 50$ percent.
3. Breakfast $2 \times \$4.50 = \9.00 ; plus $\$14 + \$12 = \$26$. Total \$35 per occupied room-night.
4. Contribution per room-night \$105. $50 \times \$105 = \$5,250$. Profit = $\$5,250 - \$1,800 = \$3,450$ (before counting the owner’s own labor or taxes).
5. Contribution = $\$110 - \$35 = \$75$. $\$1,800 \div \$75 = 24$ room-nights. Available: $3 \times 31 = 93$. Occupancy needed = $24 \div 93 \approx 25.8$ percent.
6. $\$25 \div 2$ nights = \$12.50 more per room-night, raising variable cost from \$35 to \$47.50 and cutting contribution from \$105 to \$92.50 at a \$140 rate; break-even rises from about 17.1 to about 19.5 room-nights (20). For: it shows generous welcome, may earn good reviews and repeat guests, and could justify a slightly higher rate. Against: it raises costs for every stay whether guests value it or not; a smaller gesture (flowers, a handwritten note, homemade cookies costing \$3) may show the same care for much less. A good answer weighs both and proposes a sensible choice.

4.7 LYDIA, THE SELLER OF PURPLE, WHO OPENED HER HOME

OBJECTIVES

- Read Acts 16:11–15 closely and place Lydia in her setting: Thyatira, Philippi, the purple-cloth trade and the Roman world.
- Explain why purple cloth was costly, comparing true sea-snail purple with cheaper plant-dyed purples.
- Analyze how Lydia used her house and business for the gospel, from her first welcome (16:15) to the church meeting in her home (16:40).

Warm-up. Look at the most colorful piece of clothing you own. Where was it made, and how was it dyed? Write a guess. Then imagine a world where bright, colorfast cloth was rare and expensive. Who would wear it, and who would sell it?

Video slot. Video coming. Tyrian purple: how ancient dyers made purple from murex sea snails; ruins of Philippi and Thyatira (Akhisar). Search approved channels (The British Museum, a university archaeology channel, a Bible-lands museum, a living-history dyeing demonstration); preview first.

KEY TERMS

Thyatira

A city in the region of Lydia in western Asia Minor (modern Akhisar, Turkey), known for its trade guilds, including dyers. It is one of the seven churches of Revelation (2:18–29).

Philippi

A city in Macedonia (northern Greece), made a Roman colony after the battle fought there in 42 BC. Paul founded a church there about AD 49–50.

Tyrian purple

A deep, lasting purple dye made from the glands of murex sea snails, first made famous by the Phoenician city of Tyre. It was among the most expensive goods in the ancient world.

God-fearer

A Gentile who worshipped the God of Israel and attended Jewish prayers without fully becoming a Jew. Luke calls Lydia one “which worshipped God.”

household

In the ancient world, everyone under the authority of the head of a house: family members, servants and workers. Lydia’s household was baptized with her.

guild

An association of people in the same trade. Inscriptions from Thyatira mention guilds of dyers, wool workers, leather workers and others.

CORE IDEAS

Around AD 49 or 50, on his second missionary journey, the apostle Paul had a vision of a man of Macedonia saying, “Come over into Macedonia, and help us” (Acts 16:9). Paul, Silas, Timothy and Luke (notice the “we” in the text, which shows Luke was with them) sailed from Troas, crossed the northern Aegean, landed at Neapolis and walked about ten miles inland to **Philippi**. Philippi was a Roman colony, settled by retired soldiers after the famous battle of 42 BC; its people were proud of being Roman citizens. It seems to have had few Jews and no synagogue, for on the Sabbath the missionaries went “out of the city by a river side, where prayer was wont to be made” and found a group of women meeting.

One of them was Lydia, “a seller of purple, of the city of **Thyatira**.” Thyatira lay some 250 miles from Philippi in a straight line, and farther by road and sea, in a region of Asia Minor that was itself called Lydia, so her name may have meant something like “the Lydian woman.” Thyatira was famous for its trades. Inscriptions found there name many **guilds**, including the dyers, and an inscription from Thessalonica, not far from Philippi, is often cited as naming a purple-dyer from Thyatira. Lydia, it seems, had moved to Philippi to sell the cloth her home region produced. She was a long-distance trader with a household of her own, which suggests she was a woman of some means.

Why was purple so valuable? The finest purple, **Tyrian purple**, came from murex sea snails. Each snail has a small gland that gives a few drops of colorless fluid; exposed to air and light, it turns slowly to purple. The amounts are tiny. When the German chemist Paul Friedländer worked out the dye’s chemistry in 1909, he used about 12,000 snails to get 1.4 grams of pure dye. Purple cloth was so costly that Roman law at times limited who could wear it, and it became the color of emperors and senators. But there were cheaper purples too. Dyers in inland regions such as Thyatira may have used plant dyes, especially madder root, sometimes mixed with other dyes, to produce reds and purples for ordinary buyers. Scholars do not know which kind Lydia sold, and she may have sold both.

Luke calls Lydia one “which worshipped God,” the phrase used for a **God-fearer**: a Gentile who had turned from idols to the God of Israel and joined in Jewish prayers. She already knew the Scriptures and was seeking. Then comes the key sentence: “whose heart the Lord opened, that she attended unto the things which were spoken of Paul.” Luke is clear about who acted first. Paul spoke; Lydia listened; but it was the Lord who opened her heart. Her faith was God’s gift, not her own achievement or a reward for her business success.

Her response was immediate. She “was baptized, and her **household**.” In the Roman world the head of a house had real authority over family, servants and workers, and when she believed, her household was baptized too. She is the first person named in Acts as a convert in Europe, and her home in Philippi became the seed of the church that Paul would later call his “joy and crown” (Philippians 4:1).

Then she opened her home. “If ye have judged me to be faithful to the Lord, come into my house, and abide there. And she constrained us.” Notice three things. First, she offered at once; hospitality was her first act of obedience. Second, she offered on the ground of her

faith, not her wealth: “if ye have judged me to be faithful.” Third, she insisted: “she constrained us” means she pressed them until they agreed. Four men staying for “certain days” cost food, lamp oil and space, but she gave it gladly. Her business provided the means; her faith provided the motive.

The story does not end there. After Paul and Silas were beaten and jailed in Philippi and released after the earthquake, “they went out of the prison, and entered into the house of Lydia” (Acts 16:40), where they found “the brethren” gathered and comforted them before leaving. Her house had become the meeting place of the church. Lydia shows that a business, a home and a faith can serve one purpose. The money she earned selling purple bought the bread she set before apostles, and the rooms of a trader became a house of God’s people. This is hospitality as Romans 12:13 describes it: “Distributing to the necessity of saints; given to hospitality.”

PICTURE STUDY



The Syndics of the Amsterdam Drapers' Guild (De Staalmeesters), Rembrandt van Rijn, 1662 · Oil on canvas
· Rijksmuseum, Amsterdam
Wikimedia Commons · Public domain

Rembrandt painted this group portrait in 1662 for the Amsterdam cloth-makers’ guild. The five men were *staalmeesters*, sampling officials, chosen each year to inspect dyed cloth and judge whether its color and quality matched the guild’s standards. Cloth that passed received a lead seal; poor cloth was marked as lower grade. The servant behind them is the guild’s attendant. Like the dyers of Thyatira, these men worked in a world where the quality of color was a serious matter of trade and of honesty.

Look closely

- Find the sample book on the table. What might the officials be checking?

- Look at the rich red carpet covering the table. Why would cloth men choose to be painted with such a textile?
- Notice that every face looks toward you. How does that make you feel as the viewer?

Talk about it

1. Why would buyers trust cloth inspected by a guild? How does that connect to the “just weight” of Stop D4?
2. A seller of purple needed a reputation for honest goods. How might Lydia’s reputation in trade have shaped the way the Philippians first saw the Christians who stayed in her house?

HANDS-ON: A MERCHANT’S LIFE: LYDIA’S DOSSIER

Build a dossier on Lydia using only the evidence of Acts 16 and the background facts in this stop. Separate what the text says from what we infer.

You will need

- The KJV text of Acts 16:11–15 in the Primary source box, and Acts 16:40
- A Bible atlas or a printed map of the eastern Mediterranean
- Notebook paper, colored pencils
- Optional: a purple fabric scrap, a beet or red cabbage for a simple dye test (with a parent)

Steps

1. Make two columns: “The text says” and “We infer (and why).” From Acts 16:13–15 and 16:40, list at least six facts in the first column (for example: she sold purple; she was from Thyatira; she worshipped God). In the second column, list at least four reasoned inferences (for example: she had a house large enough for four guests, so she probably had some wealth) with the evidence for each.
2. On a map, trace Paul’s route from Troas to Samothrace, Neapolis and Philippi. Mark Thyatira. Measure the straight-line distance from Thyatira to Philippi.
3. Write a short profile of the purple trade: where the dye came from, why it was costly, and the difference between murex purple and plant-dyed purple.
4. Write a paragraph answering: how did Lydia’s business and home serve the gospel? Use at least two phrases from the text.
5. Optional experiment (with a parent): simmer chopped red cabbage in water for 20 minutes, strain, and dip a white cotton scrap. Note the color, then rinse it. Compare with a store-bought purple fabric. Why did ancient buyers value colorfast dye?

Check your work

- I kept facts and inferences in separate columns.
- Every inference gives its evidence.
- My map shows the route and both cities.

- My paragraph quotes the text accurately.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, tell Lydia’s story from the riverside prayer meeting to the church in her house. Include where she came from, what she sold and why it was valuable, what the Lord did, and how she used her home. A parent dates and keeps the page.
2. Sketch a murex shell and label the spines and the opening. Beside it, draw a bolt of purple cloth.
3. In your Trail D ledger notes, write: “Lydia’s business provided the means; her faith provided the motive.” Add one way your bake-sale profit could serve someone else.

Did you know? Heaps of crushed murex shells have been found at ancient dye-works along the coast of Lebanon and Israel, sometimes forming small hills. Purple-dyed threads were also used in the tabernacle (Exodus 26:1). The spot by the river at Philippi, near the modern village of Lydia, is still visited by pilgrims, and there is a baptistery there, though the exact place of her baptism is not known.

Primary source. *Acts 16:11–15, King James Version (1611).*

11 Therefore loosing from Troas, we came with a straight course to Samothracia, and the next day to Neapolis;

12 And from thence to Philippi, which is the chief city of that part of Macedonia, and a colony: and we were in that city abiding certain days.

13 And on the sabbath we went out of the city by a river side, where prayer was wont to be made; and we sat down, and spake unto the women which resorted thither.

14 And a certain woman named Lydia, a seller of purple, of the city of Thyatira, which worshipped God, heard us: whose heart the Lord opened, that she attended unto the things which were spoken of Paul.

15 And when she was baptized, and her household, she besought us, saying, If ye have judged me to be faithful to the Lord, come into my house, and abide there. And she constrained us.

Go deeper. F. F. Bruce, *The Book of the Acts* (New International Commentary), on Acts 16 and Philippi (for older readers and parents). The British Museum’s online collection has examples of ancient purple-dyed textiles and murex shells. Paul’s letter to the Philippians, especially 1:3–5 and 4:10–18, shows how the Philippian church kept supporting Paul with gifts. Second video topic: “The archaeology of Philippi.”

Goes deeper in. History, “The Roman Empire and the Early Church,” and Small Business & Economics, “Seven Small Businesses: The Merchant” (coming soon).

For families. Sources: KJV text above; F. F. Bruce on Acts; published Thyatira inscriptions recording dyers' and other guilds (e.g., in the standard collections cited by Bruce and by Colin Hemer, *The Letters to the Seven Churches*). The Thessalonica inscription naming a purple-dyer from Thyatira is cited from commentaries; we have not checked the original. The Friedländer figure (about 12,000 snails for 1.4 g, 1909) is widely cited in histories of chemistry. Whether Lydia sold murex purple or a cheaper madder-based purple is unknown, and the stop says so. That she was well-to-do is a reasonable inference (she had a house and household and could host four men), not a stated fact. Dates for Paul's visit (about AD 49–50) follow the common chronology. Picture: Rembrandt, *De Staalmeeesters*, Rijksmuseum SK-C-6.

PRACTICE

1. **EASY** What did Lydia sell, and where was she from?
2. **EASY** According to Acts 16:14, who opened Lydia's heart?
3. **MEDIUM** Why did the missionaries go to a riverside on the Sabbath instead of a synagogue?
4. **MEDIUM** Using Friedländer's figure (12,000 snails for 1.4 grams of dye), about how many snails would be needed for 10 grams? Why does this help explain the price of purple?
5. **CHALLENGE** Find three details in Acts 16:15 that show the character of Lydia's hospitality, and explain what each teaches.
6. **CHALLENGE** Compare Lydia with the Proverbs 31 woman of Stop D1. Name two ways they are alike and one way their stories differ, citing the texts.

Make it a game • Purple Trade Route. Lay out cards for Tyre, Thyatira, Troas, Neapolis and Philippi on the floor in roughly the right places. A player carrying a "bolt of purple" (a purple scarf) must travel the route while answering a question at each city ("Who was the first named convert in Europe?" "What creature made the costliest purple?" "Where did the church in Philippi first meet?"). A wrong answer sends the trader back one city. The first to reach Philippi and say Acts 16:14 from memory wins.

Scripture. "Distributing to the necessity of saints; given to hospitality." (Romans 12:13, KJV)

Paul wrote this to the church in Rome, but Lydia had already lived it in Philippi. Christians are to share what they have with those in need and to be eager, even habitually, hospitable.

Practice: answers

1. She was "a seller of purple," that is, purple-dyed cloth, from the city of Thyatira in Asia Minor.
2. The Lord: "whose heart the Lord opened."
3. Philippi seems to have had few Jews and no synagogue, so the God-fearing women met for prayer by the river outside the city, "where prayer was wont to be made."
4. $12,000 \div 1.4 \approx 8,571$ snails per gram; $\times 10 \approx 85,700$ snails. Gathering, crushing and processing so many snails took enormous labor for a tiny amount of dye, so true purple cloth

was extremely costly.

5. (1) Timing: she invited them at once, after her baptism; hospitality was her first act of obedience. (2) Ground: "If ye have judged me to be faithful to the Lord"; she offered as a believer, not as a wealthy patron showing off. (3) Insistence: "she constrained us"; she pressed them warmly until they accepted, showing that her generosity was eager, not grudging (compare 1 Peter 4:9). Also acceptable: "come into my house, and abide there" shows a lasting welcome, not a single meal.
6. Alike (any two): both work in the cloth trade ("her clothing is silk and purple," "she maketh fine linen, and selleth it" / "a seller of purple"); both manage a household (Proverbs 31:15, 27 / Acts 16:15); both use their means for others (stretching out her hand to the poor, Proverbs 31:20 / hosting the apostles and the church, Acts 16:15, 40); both are marked by reverence for God (Proverbs 31:30 / "which worshipped God"). Different: Proverbs 31 is a poem presenting an ideal portrait in Israel, while Acts 16 is a historical account of a real Gentile woman in a Roman colony whose heart the Lord opened to the gospel of Christ; also, Proverbs 31 mentions a husband at the gates, while Acts mentions no husband and Lydia appears to head her own household.

4.8 COUNT THE PROFIT AND DECIDE: SAVE, GIVE, SPEND

OBJECTIVES

- Close the books on a sale: reconcile the cash box, total revenue and costs, and calculate profit, profit margin and profit per hour of work.
- Explain the difference between money that is yours to divide and money raised for a cause, and report results honestly.
- Make and defend a plan to save, give and spend profit, using Scripture and John Wesley's sermon "The Use of Money" (1760).

Warm-up. If you had \$100 that you earned yourself, how would you divide it? Write three amounts: save, give, spend. Then write one sentence explaining each choice. Seal the paper in an envelope and open it at the end of the stop.

Video slot. Video coming. Profit and loss for a small business: revenue, costs, profit; budgeting with save, give and spend. Search approved channels (Federal Reserve Education, Junior Achievement, Khan Academy "Personal finance," a Christian stewardship ministry such as Crown Financial); preview first.

KEY TERMS

revenue

All the money taken in from sales, before any costs are subtracted. Also called gross receipts or takings.

profit

Revenue minus all costs. If costs are larger than revenue, the result is a loss.

profit margin

Profit as a percent of revenue. \$94.20 profit on \$146.50 revenue is a margin of about 64 percent.

reconcile

To check that two records agree, such as the cash counted in the box and the sales written in the ledger.

firstfruits

In the Old Testament, the first and best part of a harvest, given to God before the rest was used (Proverbs 3:9). Christians often use the idea for giving first, not last.

stewardship

Managing something that belongs to another. Christians see money and possessions as God's, entrusted to us to use faithfully (Psalm 24:1; Luke 16:10–12).

CORE IDEAS

The sale is over, the tables are folded, and the cash box is full. Now comes the part of business that many people skip: counting carefully and deciding wisely. The first step is to **reconcile** the cash. Count every bill and coin, and write the total. Subtract the starting float, because that money was yours before the sale began. What remains is your **revenue**. If you kept a tally of sales, compare it with the cash. If the box has \$3 less than the tally, a mistake in change was probably made; if it has \$3 more, someone may have been short-changed. Either way, write it down. Honest records include the errors.

Next, gather every cost: grocery receipts, packaging, sign supplies, table rental. Include ingredients your family already had in the pantry, priced at what they would cost to replace. If a neighbor donated three dozen eggs, record them as a gift so you know the true cost of the sale, even though no money was spent. Then subtract. Using the numbers from Stop D4: revenue \$146.50 minus costs \$52.30 gives a **profit** of \$94.20. The **profit margin** is $\$94.20 \div \$146.50 \approx 64$ percent. That is high compared with a real bakery, mostly because volunteers worked for free and there was no rent.

That leads to a more searching number: profit per hour. Suppose four people worked five hours each on shopping, baking, selling and cleaning up: 20 hours in all. $\$94.20 \div 20 \approx \4.71 per hour. That is honest information. It does not mean the sale was not worth doing; the purpose may have been service, fellowship or raising money for missions. But it shows why real bakers must charge more, bake in larger quantities and work efficiently, and why businesses fail if owners do not count their own time. Economists call the value of what you gave up to do something its *opportunity cost*.

Before dividing anything, ask whose money it is. If the sale was announced as raising money “for the youth mission trip,” then every dollar of profit belongs to that cause. You may not take a share, even a small one, unless that was clearly stated in advance. Report the results to the cause in writing: revenue, costs, profit and the amount delivered. If ingredients were paid for by your parents, they should be repaid from revenue before profit is counted, or the gift should be noted. This is the same honesty Scripture requires in weights and measures, applied to records.

If the profit is yours to manage, you face the choice every earner faces: how much to give, save and spend. Scripture gives principles rather than a single formula. Give first: “Honour the LORD with thy substance, and with the **firstfruits** of all thine increase” (Proverbs 3:9). Many Christian families begin with a tithe, a tenth, following Abraham’s example (Genesis 14:20), and give more beyond it as they are able. Give cheerfully, not grudgingly (2 Corinthians 9:7). Save with foresight: the ant gathers in summer (Proverbs 6:6-8), and Joseph stored grain in seven good years for seven lean ones (Genesis 41). Spend wisely on needs, on tools that will help you earn again, and on some honest enjoyment, received with thanksgiving (1 Timothy 4:4).

In 1760 the English preacher John Wesley published a sermon called “The Use of Money” that has been quoted ever since. Its outline is three rules: *Gain all you can, Save all you can,*

Give all you can. Read the primary source carefully, because Wesley meant each rule more strictly than people often remember. By “gain” he meant honest, diligent work that harms neither yourself nor your neighbor “in soul or body.” By “save” he did not mean hoarding; he meant cutting out every expense that serves only foolish desire. And “give all you can” he explains as “give all you have to God”: after providing what you and your household truly need, the rest is to be used for others. Wesley himself lived simply and gave away most of his large income from his books.

So what should you do with \$94.20? A family might decide on something like this: give \$10 or more first; save \$40 toward a future goal or the next sale; reinvest \$20 in a good baking sheet or a cash box; and spend the rest on something enjoyed together. Another family will choose differently, and that is right; the principles are fixed, but the amounts belong to each household’s situation and conscience. What matters is that the decision is made deliberately, in prayer, written down, and carried out. Stewardship is faithfulness in small things, and “he that is faithful in that which is least is faithful also in much” (Luke 16:10).

PICTURE STUDY



Saying Grace (Le Bénédicité), Jean-Baptiste-Siméon Chardin, 1740 · Oil on canvas · Musée du Louvre, Paris
Wikimedia Commons · Public domain

Jean-Baptiste-Siméon Chardin painted quiet scenes of Parisian households and kitchens. *Saying Grace* was shown at the Paris Salon of 1740 and was presented to King Louis XV; Chardin painted several versions. A mother pauses with the soup to let her youngest child say the blessing before the meal. The household is modest, but the moment is full of order, patience and thanks.

Look closely

- Look at the mother's face and hands. Is she hurrying the child or waiting? How can you tell?
- Find the plain objects in the room: the chair, the pot, the drum on the floor. What do they tell you about this family's means?
- Notice the light. Where does it fall most brightly, and why might Chardin have chosen that spot?

Talk about it

1. This family stops to give thanks before using what has been provided. How does giving thanks first change the way we think about money we have earned?
2. Chardin chose a small, ordinary moment as the subject of a picture for a king. What does that say about the worth of everyday faithfulness?

Safety first. Money handling: count money with a parent present, in a private place, and do not carry large amounts of cash alone. Deposits and any giving to a ministry or charity should be made by or with a parent. Any real sale needs a parent's sign-off.

HANDS-ON: BAKE-SALE PLAN, PART 4: PROFIT REPORT AND STEWARDSHIP PLAN

Close the books on your bake sale (real or pretend), write an honest profit report, and make a written plan for the profit. If your sale was pretend, use the sample numbers from Stop D4 or your own projections.

You will need

- Your Trail D ledger, cost sheet, price list and tally from Stops D2-D4
- The cash box (or your pretend totals)
- Calculator, ruled paper
- Three envelopes or jars labeled Give, Save, Spend

Steps

1. Count the cash box with a parent. Write the count by type (bills, quarters and so on). Subtract the float. Compare with your sales tally and record any difference.
2. List every cost with its receipt or estimate. Mark donated items separately with their replacement value.
3. Write a one-page profit report: revenue, total costs, profit, profit margin, hours worked and profit per hour. Add a line for donated value and a line showing what profit would have been if you had bought everything.
4. Answer in writing: whose money is this? If the sale was for a cause, write a short report to that cause and plan how to deliver the funds.
5. If the profit is yours to manage, write a stewardship plan dividing it among Give, Save and Spend (including reinvestment). Explain each amount with at least one Scripture reference and one idea from Wesley's sermon.
6. Divide the money into the envelopes or jars and carry out the plan with your parent.

7. Write three lessons learned for your next sale: one about forecasting, one about costs or prices, one about people.
8. Parent sign-off line: "I have checked the count and approved the plan." Signature: _____ Date: _____

Check your work

- My cash count is reconciled with my tally, and any difference is recorded.
- My report shows revenue, costs, profit, margin and profit per hour.
- I answered "whose money is this?" honestly.
- My stewardship plan uses Scripture and Wesley and was carried out.

FIELD NOTEBOOK

1. **Narration (keep this page).** In one written paragraph of 8–10 sentences, tell how you closed the books on your bake sale and what you decided to do with the profit, and why. Use the words revenue, profit and stewardship, quote one line of Scripture and one phrase from Wesley. A parent dates and keeps the page.
2. Open your warm-up envelope. Compare your first guess with your final plan, and write two sentences about what changed and why.
3. Draw a simple bar chart of your bake sale: revenue, costs and profit side by side.

Did you know? John Wesley (1703–1791) earned a great deal from his many cheap books and pamphlets, yet he is reported to have lived on about the same modest sum for most of his life and given the rest away; he said he hoped to die with little money left, and he nearly did. His sermon on money was based on Luke 16:9, the parable of the unjust steward, and was first published in 1760.

Primary source. John Wesley, *Sermon L, "The Use of Money" (on Luke 16:9), part III, paragraph 6, from The Works of the Rev. John Wesley, Vol. 4. Project Gutenberg, ebook #68320.*

You see then what it is, to *make yourselves friends of the mammon of unrighteousness*, and by what means you may procure, *that when ye fail they may receive you into the everlasting habitations*. You see the nature and extent of truly Christian prudence, so far as it relates to the use of that great talent, money. *Gain all you can*, without hurting either yourself or your neighbour, in soul or body; by applying hereto with unintermitted diligence, and with all the understanding which God has given you. *Save all you can*, by cutting off every expence, which serves only to indulge foolish desire: to gratify either the desire of the flesh, the desire of the eye, or the pride of life. Waste nothing, living or dying, on sin or folly, whether for yourself or your children. And then *Give all you can*, or in other words give all you have to God.

Go deeper. John Wesley, “The Use of Money,” complete, free at Project Gutenberg (ebook #68320, Sermon L) and at the Wesley Center Online. Randy Alcorn, *The Treasure Principle* (2001), a short Christian book on giving (parents preview). Ron Blue, *Master Your Money*, for families who want a fuller budgeting plan. Second video topic: “How a nonprofit reports how it spends donations.”

Goes deeper in. Small Business & Economics, “Seven Small Businesses: Profit and Stewardship,” and Arithmetic, “Percents and Money” (coming soon).

For families. Sources: Wesley text from Project Gutenberg #68320 (a multi-volume edition of his works; the sermon first appeared in *Sermons on Several Occasions*, vol. 4, 1760). The paragraph is quoted exactly, including Wesley’s italics and his spelling “expençe.” Accounts of Wesley living on a fixed sum (often given as about £28 or £30 a year) come from early biographers and are reported, not verified here. The save/give/spend example is an illustration only; this stop does not prescribe percentages beyond noting the common practice of the tithe. Families differ in their convictions about tithing under the New Covenant; please guide your student by your own church’s teaching. Picture: Chardin, *Le Bénédicité*, Louvre; Chardin painted several versions, including one in the Hermitage.

PRACTICE

1. **EASY** Write the formula for profit and for profit margin.
2. **EASY** What are Wesley’s three rules in “The Use of Money”?
3. **MEDIUM** A cash box holds \$212.75 at the end of a sale. The float was \$50. Costs were \$61.40. Find revenue, profit and profit margin.
4. **MEDIUM** Your profit is \$101.35. You decide to give a tithe first, save 40 percent of what remains, and spend the rest. How much goes to each? (Round to the cent.)
5. **CHALLENGE** Read the primary source. Wesley adds a condition to each of his first two rules. State each condition in your own words and give a bake-sale example of breaking it.
6. **CHALLENGE** A sale raised \$180 in revenue “for the food pantry.” Costs were \$45, paid by a parent who now asks to be repaid. A helper suggests keeping \$20 for pizza for the volunteers. Explain what should be done with the money and why, citing a principle from this trail.

Make it a game · Steward’s Choices. Write 12 cards with spending choices (“A new baking sheet for the next sale: \$14,” “Give to a missionary family: \$20,” “Candy for yourself: \$6,” “A gift for a sick neighbor: \$8,” “Savings for a camp: \$30”). Each player gets \$90 in play money and draws six cards, choosing which to fund. Then each explains their choices in one minute using one rule from Wesley or one verse. Players vote for the most thoughtful plan, not the most generous or the most selfish.

Scripture. “Honour the LORD with thy substance, and with the firstfruits of all thine increase: So shall thy barns be filled with plenty, and thy presses shall burst out with new

wine.” (Proverbs 3:9–10, KJV)

Giving the first and best to God shows that all we earn comes from Him. Proverbs describes the usual blessing on such a life of faith, not a bargain to buy wealth; the heart of it is honoring God with whatever He provides.

Practice: answers

1. Profit = revenue – costs. Profit margin = profit ÷ revenue (as a percent).
2. Gain all you can; save all you can; give all you can.
3. Revenue = \$212.75 – \$50 = \$162.75. Profit = \$162.75 – \$61.40 = \$101.35. Margin = $\$101.35 \div \$162.75 \approx 62.3$ percent.
4. Give: 10 percent of \$101.35 = \$10.14 (rounded; \$10.135). Remaining \$91.21. Save 40 percent = \$36.48. Spend = \$91.21 – \$36.48 = \$54.73. (Check: \$10.14 + \$36.48 + \$54.73 = \$101.35.)
5. Gain all you can “without hurting either yourself or your neighbour, in soul or body”: earn honestly and without harm. Breaking it: selling stale goods as fresh, hiding nuts from a customer with an allergy, or working yourself to exhaustion on the Lord’s Day against your conscience. Save all you can “by cutting off every expence, which serves only to indulge foolish desire”: save by refusing needless spending, not by being stingy toward needs. Breaking it: spending the profit on things you do not need just to show off, or wasting ingredients carelessly.
6. Repay the parent \$45 from revenue (a real cost of the sale, and disclosed in the report), leaving \$135 profit. All \$135 belongs to the food pantry because the sale was announced for that cause; keeping \$20 for pizza would take money given for the poor under a false description, like a false weight (Deuteronomy 25:13–16; Proverbs 16:11). If the volunteers want pizza, they should pay for it themselves, or the plan should have said in advance that some proceeds would cover a volunteer meal. Write a report showing \$180 revenue, \$45 costs, \$135 delivered.

TRAIL 4 BADGE QUIZ

The badge quizzes are optional and may be written or oral. Students may use a calculator. Four right out of five earns the first badge check; five right out of six earns the second. Badges and the certificate are earned by completing the stops, not by scores; use the quiz to find what needs review.

Badge quiz 1 (Stops 1-5)

1. In Proverbs 31:16, what does the woman do with “the fruit of her hands,” and why is it called an investment?
2. An event expects 150 visitors; you estimate 30 percent will buy, averaging 2 items each. Forecast how many items to bring, with a 10 percent cushion.
3. A batch of cookies uses \$6.30 of ingredients and yields 42 cookies. What is the cost per cookie? If only 40 are sellable, what is the real cost per cookie?
4. A muffin costs 40 cents to make and sells for \$1.25. Find the markup (percent of cost) and the margin (percent of price). Then count up the change from a \$5 bill for a \$3.75 purchase.
5. Name the two Greek words Luke uses for “inn” (Luke 2:7 and Luke 10:34) and explain the difference.

Badge quiz 2 (Stops 6-8)

6. A pretend B&B has 5 rooms open for 30 nights and sells 75 room-nights. What is its occupancy rate? Name one fixed cost and one variable cost it would have.
7. A pretend B&B charges \$120 a night, has variable costs of \$30 per occupied room-night and fixed costs of \$1,500 a month. How many room-nights must it sell to break even? With 3 rooms over 30 nights, what occupancy is that?
8. Who was Lydia, and what two things did she do after the Lord opened her heart (Acts 16:15, 40)?
9. Why was murex purple so costly?
10. A sale’s cash box holds \$175 and the float was \$40. Costs were \$48. What were revenue and profit, and what are Wesley’s three rules for the use of money?
11. If a bake sale was announced as raising money for a mission trip, may the bakers keep part of the profit? Explain.

TRAIL CERTIFICATE: MY BAKE-SALE BUSINESS PLAN, B&B BROCHURE AND TRAIL D CERTIFICATE

Gather the four parts of your bake-sale plan into one folder: forecast and schedule (D2), cost sheet (D3), price list, signs and change drill (D4), and profit report and stewardship plan (D8). Add a cover with your name, the dates and the event.

Add your Proverbs 31 flow chart (D1), inn timeline (D5), B&B brochure and business plan (D6), and Lydia dossier (D7).

Include the eight narration pages your parent dated and kept.

Write a one-page reflection: what did you learn about running a business as a way to serve God and neighbor? When the portfolio is complete, a parent signs the Trail D certificate.

- **Accuracy:** Calculations of cost, price, margin, break-even and profit are correct and shown step by step, with units and rounding to the cent.
- **Use of sources:** Primary sources (KJV, Simmons, Wesley) are quoted exactly and used as evidence; facts are kept separate from inferences.
- **Honesty and stewardship:** Records are complete, including errors and donated items; prices and signs are fair; the profit plan is reasoned from Scripture.
- **Presentation:** Narrations are clear paragraphs; the brochure, signs and reports are neat, readable and organized.

Answer key

1. She buys a field and plants a vineyard. She uses present earnings to buy something that will produce income for years to come.
2. $150 \times 0.30 \times 2 = 90$ items; $90 \times 1.10 = 99$ items (about 100).
3. $\$6.30 \div 42 = \0.15 . $\$6.30 \div 40 = \0.1575 , about 15.8 cents.
4. Profit 85 cents. Markup = $85 \div 40 = 212.5$ percent. Margin = $85 \div 125 = 68$ percent. Change: "\$3.75 ... \$4.00 (a quarter), \$5.00 (a dollar)" = \$1.25.
5. Kataluma (Luke 2:7), a lodging place or guest room, the same word as the "guestchamber" of Luke 22:11; pandoecheion (Luke 10:34), a public commercial inn with a host who is paid.
6. $5 \times 30 = 150$ room-nights available; $75 \div 150 = 50$ percent. Fixed (any one): insurance, licenses, mortgage or rent, website fees. Variable (any one): breakfast food, laundry, soap and supplies, cleaning per stay.
7. Contribution \$90 per room-night. $\$1,500 \div \$90 \approx 16.7$, so 17 room-nights. $17 \div 90 \approx 18.9$ percent occupancy.
8. A seller of purple from Thyatira who worshipped God and met for prayer by the river at Philippi. She was baptized with her household, and she opened her home to Paul and his companions; later the believers gathered in her house (16:40).
9. Each sea snail yields only a drop of dye fluid; thousands of snails (about 12,000 for 1.4 grams in Friedländer's 1909 work) and much labor were needed for a small amount of dye.
10. Revenue \$135; profit \$87. Gain all you can; save all you can; give all you can.
11. No, not unless that was clearly stated in advance. The profit belongs to the announced cause; keeping some would misrepresent the sale, like using a false weight. Real costs may be repaid and must be reported.