

THE REFUGE SERIES

The Refuge Field Manual

An illustrated reader's companion to The Refuge and Siege of Mercy

From the novels of Michael Bath

48 FIELD NOTES / READER EDITION

At the pantry door

When Marie opens the pantry ledger, the question is how many people can eat. When Amber sees Eli's wet gloves, the answer is the dry pair in her hands. The things people use in these books tell us what they believe they owe one another.

Open any note. Read the moment from the novel, look closely at the object, then try the small piece of work it suggests. The character introductions are original companion writing. Chapter references point to Michael Bath's novels. The drawings are interpretations for this guide.

FIVE COLLECTIONS

01 Home and workshop

02 Tools and machines

03 Care and hospitality

04 Garden and farm

05 Messages and memory

For your own table

Four printable field sheets follow the notes. They leave room for the name of your tree, the count on your shelf and the step another person needs you to explain.

The Refuge Series and Reader's Circle

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The drinking water jug

A COMPANION NOTE FROM SEAN

Before anybody starts hauling, tell me which water a child can drink. I want that written where the child can see it.



FROM THE NOVEL

Siege of Mercy · Chapter 4 · Bad Ground

Sean looks at the slope above the creek and sees where runoff will go. The water supply matters to people who cannot see the trench from where they stand.

A tight cap protects what goes into a jug. For a household reserve, unopened commercially bottled water is the simplest choice. If you fill a food-grade container yourself, clean and sanitize it and start with safe water. Keep it cool and out of direct sun. If you suspect fuel or toxic chemicals in the water, use a different source. Boiling cannot make that water safe.

TRY IT

Count the people at your table. Allow at least a gallon per person per day for three days and plan extra for pets or special needs. Mark self-filled containers with their purpose and fill date. Replace that water every six months.

Two people × three days × one gallon = six gallons before any extra needs.

AT THE TABLE

Could a guest tell which water is for drinking?

Sources 1 · 2

The carbon monoxide alarm

A COMPANION NOTE FROM JASON

A stove earns its place on a cold morning. I'd still like to hear the alarm from the room where the children sleep.



FROM THE NOVEL

Siege of Mercy · Chapter 1 · Cold Smoke

Heat from the lodge stove meets Jason when he goes back into the kitchen. The carbon monoxide alarm is the modern household item paired with that scene.

Fuel-burning equipment can produce carbon monoxide, a gas you cannot see or smell. The alarm gives the household a way to notice a danger their senses can miss. A smoke alarm alone serves a different purpose.

TRY IT

Find the CO alarms on each level and outside sleeping areas. Read the test and replacement instructions on the units you own. If a CO alarm sounds, get everyone outside to fresh air and call 911 from outside.

Write the alarm's replacement date on a household calendar where someone else will see it.

AT THE TABLE

Who in your house would hear the alarm from behind a closed door?

Sources 3

Sean’s seed jars

A COMPANION NOTE FROM SEAN

A bean looks like supper right up until you need it to be next year’s crop. Give the planting jar a shelf of its own.



FROM THE NOVEL

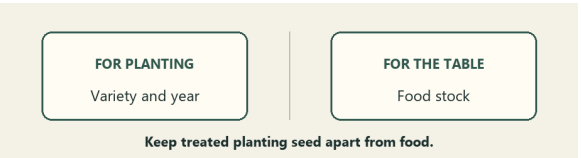
Siege of Mercy · Chapter 7 · Thin Margins

Beyond the rabbit hutches, Sean and Sara consider the spring garden. Sean has already set seed jars apart from food jars, a hard distinction to keep when people are hungry.

A seed label carries a promise into another season. Include the crop, variety if known, and year. Keeping planting seed cool and dry helps preserve it. Treated planting seed belongs apart from anything intended for the table.

TRY IT

Take one packet you intend to plant. Copy its variety and year onto a second label before the original fades. Give that packet its own place. If you do not know the variety, leave that on the record too.



A useful label might read “Pole bean • variety unknown • saved 2026 • for planting.”

AT THE TABLE

What did someone in your family save specifically for next year?

Sources 4

The dried apples on the pantry shelf

A COMPANION NOTE FROM MARIE

Put the date on the apples while you still remember the afternoon you put them up.



FROM THE NOVEL

Siege of Mercy · Chapter 5 · The Verse in the Doorframe

The pantry in Siege of Mercy has a place for flour sacks, salt crocks and dried apples. Its order lets Marie and Sean notice a shortage.

A written preservation record makes it possible to repeat a good batch. Record the food, the method, the date and the source of the directions. A drying method for apples and a canning process for vegetables answer different questions.

TRY IT

Take one food you already preserve or buy dried. Copy its storage directions onto a recipe card and add the date you opened or prepared it. For home preservation, start from a tested recipe for that food and method. A family memory can sit alongside it.

Keep two lines on the card. One names the tested method. The other says who taught you to make the food.

AT THE TABLE

Which food on a shelf would remind you of a particular person?

Sources 5 · 6

Jason’s porch rocker

A COMPANION NOTE FROM JASON

A rocker will tell on a loose joint. Before you sit down, follow the rail to the place it meets the leg.



FROM THE NOVEL

The Refuge · Chapter 4 · Shenanigans and Serenity in the Wilderness

Jason works on a porch rocker in the woodshop while Marie tends the garden. The novel gives the chair a maker and a place. It leaves the details of its joinery open.

A mortise is a recess. A tenon is the projecting end shaped to fit inside it. The manual’s timber-joint drawing becomes easier to read when you can hold a harmless model in one hand.

TRY IT

Fold a small sleeve from cardstock and slide a flat tab into it. Mark the place where the tab disappears. Pull it out and draw the hidden portion with a dotted line. Then look for a joint on a sound piece of furniture.

On a joinery sketch, a dotted edge can show a part you would never see in the finished chair.

AT THE TABLE

Who made something your family still uses?

A pair of bellows

A COMPANION NOTE FROM JASON

You can hear a shop before you know what's in it. A pair of bellows is easy to recognize once you've felt the little push of air.



FROM THE NOVEL

The Refuge · Chapter 4 · Shenanigans and Serenity in the Wilderness

The sounds of Jason's saw and planer carry through the woodshop. The bellows comes from the manual's forge section, another tool that translates a movement of the hand into useful work.

When the sides of a bellows open, the chamber draws in air. As the sides close, air leaves through the nozzle. One-way airflow makes the repeated motion useful. The leather folds let the chamber change size.

TRY IT

Watch an unheated fireplace bellows work, or use an empty squeeze bottle to feel displaced air at room temperature. Draw the air entering and leaving a bellows on two separate sketches. The simple bottle demonstrates displacement only.

Open chamber → air enters. Closing chamber → air leaves through the nozzle.

AT THE TABLE

What hand tool first made sense to you when you saw it move?

The wrapped bar of soap

A COMPANION NOTE FROM AMBER

Leave the next person a dry towel as well. They ought to be able to finish what they came to do.



FROM THE NOVEL

Siege of Mercy · Chapter 5 · The Verse in the Doorframe

Marie's pantry holds soap wrapped in paper and stacked three deep. The missing bars matter because every person at a washstand depends on someone keeping it stocked.

A working handwashing place needs soap, clean running water and a way to dry hands. A bar still in the storeroom does little for the person standing at the sink with a child.

TRY IT

Stand where a guest would stand. Check that the soap and a clean towel or paper towels are within reach. Wet hands, lather and scrub for at least 20 seconds, including fingertips and between fingers, then rinse and dry.

Try the reach from a seated position, then ask the person who uses the sink what works for them.

AT THE TABLE

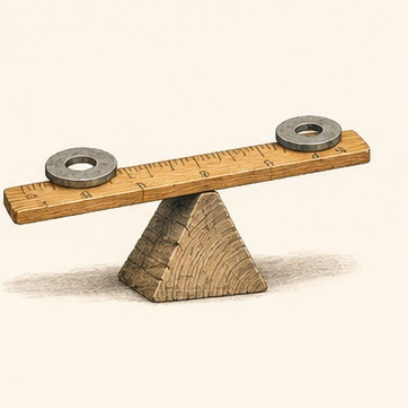
What small thing makes your home easier for a guest to use?

Sources 7

The tabletop lever

A COMPANION NOTE FROM SEAN

I'd rather learn where to put the fulcrum with two washers than with a stockpot full of supper.



FROM THE NOVEL

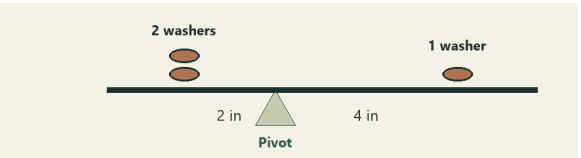
Siege of Mercy · Chapter 2 · Mercy Line

Jack brings two empty stockpots to the gate kitchen. Even empty, the pots need somebody to carry them. The tabletop lever is a way to study why the position of a load matters.

A lever turns around a support called a fulcrum. A small weight farther from that point can balance a larger weight closer to it. Distance matters as much as weight in this little experiment.

TRY IT

Lay a ruler across a pencil on a table. Balance two identical washers together two inches from the pivot against one washer four inches away. Start with the unloaded ruler balanced at its center and keep a hand close to catch the washers.



Two washers × two inches balances one washer × four inches in the ideal model.

AT THE TABLE

Which surprised you more, how little the ruler moved or how much a washer's position mattered?

Eli’s dry gloves

A COMPANION NOTE FROM AMBER

A little too big leaves room for his fingers. Wet through doesn’t. Hand him the dry pair first.



FROM THE NOVEL

Siege of Mercy · Chapter 2 · Mercy Line

At the mercy line, Marie notices Eli’s wet gloves. Amber finds him a dry pair. For a moment, the whole problem is the size of one boy’s hands.

Look at a glove somebody has worn for a season. The thin place may tell you which finger gets the most use. A small mend in an ordinary knit glove can keep it in service. A clean, dry spare answers a different need while the first pair dries.

TRY IT

Turn an ordinary glove inside out and inspect its fingertips. If a seam has opened, practice closing a short seam on scrap knit before trying the glove. Keep the spare pair together where both pieces can be found.

Put a bright stitch inside the cuff of each matching glove. A second pair gets a different color.

AT THE TABLE

What useful thing have you mended often enough to recognize by touch?

The property map

A COMPANION NOTE FROM TOM

Give me the map and let me tell you what I see. If I've got the creek on the wrong side, we'd best find out here.



FROM THE NOVEL

The Refuge · Chapter 1 · A New Beginning

Jason studies the property map before settling on the lodge as the first job. A name on a map begins to mean something when two people agree which building it describes.

A useful sketch has a reference direction, a landmark and a legend for unfamiliar marks. A paper copy lets two people point to the same spot without relying on a phone signal.

TRY IT

Sketch a familiar public place such as a town park. Mark the entrance, one landmark and a meeting spot. Ask someone to point out where they would wait. If the answer differs from yours, revise the label.

"Bench by the library's front door" is easier to check than "the usual bench."

AT THE TABLE

Which local landmark do people call by two different names?

The measuring cord

A COMPANION NOTE FROM JASON

A post can look square from where you're standing. Move your feet or get the cord.



FROM THE NOVEL

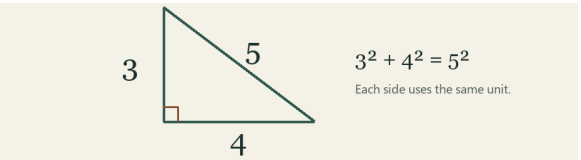
The Refuge · Chapter 3 · Paradise Found and Fixed

Jason measures, saws and sets posts as the old camp is restored. The three-four-five cord comes from the manual's surveying section.

A triangle with side lengths in the ratio three, four and five has a right angle opposite the longest side. You can work at the kitchen table and see the geometry without a single building stake.

TRY IT

Use graph paper. Draw four squares across and three squares up from the same corner, then join the free ends. Measure that sloping line with a paper strip marked in the same units. Use this as a drawing exercise.



The 3-unit and 4-unit sides meet at the square corner. The 5-unit side lies across from it.

AT THE TABLE

What measuring trick has stayed with you since someone showed you by hand?

The spoked wheel

A COMPANION NOTE FROM JASON

Ask the person using the chair which doorway gives them trouble. You won't learn that by admiring the wheel.



FROM THE NOVEL

Siege of Mercy · Chapter 1 · Cold Smoke

Jason's birchwood wheelchair has its place beside the bed. The master illustrates a wooden transport wheel. They belong to different kinds of transport, and they ask different things of a doorway.

On a traditional wooden wheel, the hub surrounds the axle, spokes connect the hub to the rim, and the rim follows the ground. Those names let two people describe the same part. Wheel measurements alone tell you little about how a person experiences a room.

TRY IT

Label those three parts on a sketch. Then ask before moving anything in a shared passage. Let the person who uses that route identify the obstacle they would move first.

A wheel drawing answers "Which part?" The person who uses a route can answer "What gets in the way?"

AT THE TABLE

Which small change has made a room easier for someone to move through?

The watch on the table

A COMPANION NOTE FROM TOM

Write down when you looked. Half an hour means something different to the fellow who came in late.



FROM THE NOVEL

Siege of Mercy · Chapter 34 · The Watch on the Table

A watch with a cracked crystal and a worn black strap sits on the table in Siege of Mercy. The people around it need a shared understanding of time.

A clock reading and an elapsed interval are different pieces of information. One tells the next person when something happened. The other tells them how long it took. A kitchen timer can tell you the second and leave you guessing at the first.

TRY IT

Try it with an ordinary handoff, such as watering seedlings for a neighbor. Record the time you finished and the time they want the next check. Read both times back, including morning or evening.

Finished Tuesday at 8 a.m. • next check Tuesday at 6 p.m. • ten hours apart.

AT THE TABLE

What household handoff falls apart when somebody just writes “later”?

The apple press

A COMPANION NOTE FROM MISS FRAN

First I'd like to know what tree the apples came off. Folks will remember a good crop for years and forget which tree gave it.



FROM THE NOVEL

The Refuge · Chapter 3 · Paradise Found and Fixed

The old camp has an orchard bearing apples and pears. The cider press is a tool from the manual that gives a reader another way to think about that fruit.

A traditional basket press squeezes crushed fruit. The basket holds back much of the pulp while juice runs to a collection point. Pressing alone does not make juice safe to drink. For a drink to share, choose pasteurized juice.

TRY IT

Try the mechanical idea with a clean, damp kitchen sponge between two flat plates over a basin. A gentle press separates some of the water from the sponge. Trace where the water went.

The sample on the table is a sponge. In the historic press, the basket holds the pulp and a channel carries the juice away.

AT THE TABLE

What fruit puts you in mind of one particular yard or orchard?

Sources 8

The barrel lid

A COMPANION NOTE FROM AMBER

The lid matters. So does the word on the barrel. I want both in place before anybody reaches for a cup.



FROM THE NOVEL

Siege of Mercy · Chapter 13 · Milk and Ash

Amber brings a water-barrel lid in from the west wing. A detail ordinary enough to pass without notice suddenly deserves attention.

In a household garden, a rain barrel and a drinking-water reserve have different jobs. Roof runoff can pick up germs or chemicals. A cover and a screen can keep out debris and insects, but they cannot establish that the water is potable.

TRY IT

Label a rain barrel for watering ornamental plants. Keep it separate from drinking water. Put the label where a visitor would see it before reaching the spigot, and follow local guidance for any other use.

Try reading the words “Garden water only” from the side people actually approach.

AT THE TABLE

What container at home could use a clearer label?

Sources 9 · 1

Marie’s pantry ledger

A COMPANION NOTE FROM MARIE

I can count the beans. The harder part is deciding how much to leave for the person who hasn’t come through the door yet.



FROM THE NOVEL

Siege of Mercy · Chapter 1 · Cold Smoke

Marie stands in the pantry doorway with the ledger open, her pencil beside the flour column. She knows how far the stores will stretch for the people already under her roof. Someone else may need a place at supper.

A pantry ledger turns a general impression into a count another person can check. Use one unit per row. A jar, a pound and a serving are different things even when the shelf holds only beans.

TRY IT

Choose one shelf. Count what is on it and write the date and unit. Record what leaves before adding a new purchase. If the written balance disagrees with the shelf, recount and date the correction.

8	−2	+1	7	6
Opening	Used	Received	On hand	Available

After reserving 1 of the 7 jars, 6 jars are available.

Example in jars of beans. Opening 8, used 2, received 1, on hand 7. Set 1 aside for a neighbor and 6 remain unreserved.

AT THE TABLE

If another family came to supper, which number in your pantry would you want to know first?

Copper and brass samples

A COMPANION NOTE FROM JASON

If all I know is that it's yellow, that's all I ought to put on the label.



FROM THE NOVEL

Siege of Mercy · Chapter 2 · Mercy Line

Aaron carries a crate of tin cups. The name tells a reader what kind of cup the characters mean. It would tell a metalworker very little about the exact makeup of an unfamiliar sample.

Copper is an element. Brass is a family of alloys made chiefly from copper and zinc. Once two labeled samples are laid side by side, a change in color is easy to see. Tarnish and surface coatings can fool the eye.

TRY IT

Set two documented samples, or two labeled photographs, side by side. Draw their colors in ordinary light. Keep the supplier's description with each. If an old object lacks a reliable label, record its appearance and leave its composition open.

"Reddish metal, origin unknown" is a more useful record than a confident guess.

AT THE TABLE

What old object came to you with a story but no maker's mark?

Sources 10

The button and its impression

A COMPANION NOTE FROM JASON

Press a button into clay and lift it straight out. Most people notice the rim first. Look at what happened to the holes.



FROM THE NOVEL

The Refuge · Chapter 4 · Shenanigans and Serenity in the Wilderness

The rocker in Jason's woodshop begins with a shape he wants to make. A foundry pattern in the manual also begins with a shape, then leaves its opposite behind.

A raised feature on a pattern makes a hollow in soft material. A recess can leave a bump if the material reaches it. This reversal helps explain how a mold carries information from one object to the next.

TRY IT

Press a clean spare button face down into a flattened piece of modeling clay. Lift it away. Turn the clay so light falls across its surface and draw both faces. Keep the clay for crafts.

Mark one high point on the button and the corresponding low point in the impression.

AT THE TABLE

Which detail of an everyday object do you notice only after it leaves a mark?

The empty stockpot

A COMPANION NOTE FROM MARIE

An empty pot looks big enough for anybody. The ladle has a less generous opinion.



FROM THE NOVEL

Siege of Mercy · Chapter 2 · Mercy Line

Jack arrives with two empty stockpots while Aaron carries cups. Once broth is on the line, the number of portions matters more than how imposing a pot looks.

The master looks at what cast metal can do. The novel gives its pot no manufacturing specification. A cook can answer a more immediate question with a measuring cup and cold water.

TRY IT

Use a manageable pan at the sink. Measure in cold water one cup at a time to a comfortable serving level. Use the actual ladle to find how many fills make one measured cup. Record the pan and ladle together.

Example only. A working fill of 8 cups gives sixteen half-cup portions. Leave room in the pot for handling.

AT THE TABLE

What kitchen utensil tells you how many people you can feed?

The shop calipers

A COMPANION NOTE FROM JASON

A spoon measures what it will hold. My calipers measure how far it is from one side to the other. First tell me which answer you need.



FROM THE NOVEL

Siege of Mercy · Chapter 5 · The Verse in the Doorframe

Measuring spoons hang by Marie's pantry door. A spoon measures volume. The workshop section introduces a different kind of measure, the distance between two surfaces.

The outside jaws of calipers span a small object, such as a dowel. Hold the jaws square to the wood and touch both sides lightly. A heavy squeeze can change the reading on a soft material.

TRY IT

Measure a pencil across its width. Turn it a quarter turn and repeat with the same units. A hexagonal pencil may measure differently across its corners and across its flats. Write down which faces you measured.

"7 mm across the flats" tells the next person more than a bare 7.

AT THE TABLE

What tool did someone teach you to hold more gently?

The rabbit hutch latch

A COMPANION NOTE FROM SEAN

A latch that shuts for me ought to shut for whoever feeds the rabbits next.



FROM THE NOVEL

Siege of Mercy · Chapter 7 · Thin Margins

Sean knows the hutch doors by feel. Later he and Sara visit the patched hutch and check the breeding doe's water. Its hardware is part of keeping a living thing in their care.

A sliding latch has two working parts. The bolt moves with the door. The keeper receives it on the frame. If the two no longer line up, pushing harder can hide the real problem.

TRY IT

On a spare latch or an empty demonstration box, bring the door gently to rest and watch the bolt meet the keeper. Mark where it actually touches. Record a repair need for whoever maintains the enclosure.

A useful repair note reads "Bolt meets the bottom of the keeper when the door rests shut."

AT THE TABLE

What repair did you finally understand after you watched it from the side?

Reading a dial gauge

A COMPANION NOTE FROM SARA

Write the unit beside the number. Somebody else may have to make sense of your figures before breakfast.



FROM THE NOVEL

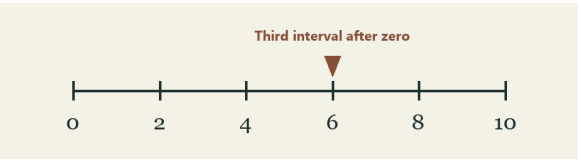
Siege of Mercy · Chapter 7 · Thin Margins

Sean brings the slate outdoors with Sara. A count on paper must still answer to what they find in the nesting box. A dial poses the same problem when someone copies a reading without its unit.

The steam-power section uses gauges. For this paper exercise, draw an imaginary scale so you can see how labels and intervals work. Reading an instrument and deciding whether equipment is fit to run are separate jobs.

TRY IT

Mark 0 and 10 on a line with five equal spaces between them. Number the marks by twos. Put a pencil point on the third mark after zero and ask a second reader to give the value and the unit.



Five equal spaces from 0 to 10 make intervals of 2. The third mark after zero reads 6 practice units.

AT THE TABLE

Which measurement has caused confusion because someone left the unit off?

The flywheel

A COMPANION NOTE FROM JASON

A wheel can keep turning for a little while after the hand leaves it. That last turn still had to be paid for somewhere.



FROM THE NOVEL

The Refuge · Chapter 1 · A New Beginning

The Wilders' early plans include a backup generator. The master's Stirling engine offers a different example of turning energy into motion.

A Stirling engine uses a temperature difference to produce mechanical work. A flywheel stores energy while it spins and helps carry the mechanism between pushes. Friction eventually brings an undriven wheel to rest.

TRY IT

Spin a toy wheel with one finger and let go. Watch it coast to a stop. Draw a short arrow for the push and a longer curved arrow for the coasting wheel. The toy lets you feel the flywheel's part in the cycle.

Energy goes in during the push. A moving wheel can give some of it back while it slows.

AT THE TABLE

What machine did you understand better once it coasted to a stop?

Sources 11

Jason’s tool wall

A COMPANION NOTE FROM JASON

Leave the mallet where the next pair of hands will look. Mine won’t always be the next pair.



FROM THE NOVEL

The Refuge · Chapter 4 · Shenanigans and Serenity in the Wilderness

In Jason’s woodshop the tools hang in order above a worn workbench. That habit makes sense in a community where a job may pass from one person to another halfway through.

A tool wall can show the work as well as the tools. A fixed place for measuring, marking and putting things away lets the next person see what is missing without rummaging through a box.

TRY IT

Choose three frequently used, safely stored tools. Label their places with ordinary names. Give someone who shares the space one simple job and ask where the tools ought to go back. Change the labels if their answer surprises you.

A return label such as “Carpenter’s square • left hook” can rescue ten minutes on the next job.

AT THE TABLE

Which tool has a permanent home in your house?

The emergency address card

A COMPANION NOTE FROM AVA

Somebody calling for help may know exactly where they are and still go blank when asked for the address. Put it on paper while the room is quiet.



FROM THE NOVEL

Siege of Mercy · Chapter 2 · Mercy Line

At the gate, the family sets up a place to receive and assess people who need help. A household address card brings one piece of that preparation into an ordinary home.

In the United States, a 911 call-taker may ask for the location, callback number and nature of the emergency. Those first answers help a stranger understand where to send help. Listen to the call-taker and follow their directions.

TRY IT

Write the street address, unit if applicable and callback number where people in the home can find them. Rehearse with a friend playing the call-taker, using an imaginary situation. Keep real household details off public posts.

Let a guest read the address card aloud. A missing building or apartment number is easy to fix now.

AT THE TABLE

Which detail would a visitor need to describe your location accurately?

Sources 12

The bandage packet

A COMPANION NOTE FROM AMBER

If I ask for the bandages, you ought to be able to hand me the packet without turning out the whole cupboard.



FROM THE NOVEL

Siege of Mercy · Chapter 2 · Mercy Line

Amber lays out bandages and a basin while Sara sets up her clipboard. A supply somebody can reach is worth more in that moment than an impressive list in another room.

A folded triangular bandage takes up little space. The object lesson here is how to find an intact supply and recognize when trained help is needed. An injured limb can be seriously hurt even if the injury looks small.

TRY IT

Locate the household first-aid kit. Check packaging, dates where printed and the instructions from the kit supplier. Keep an unopened packet for use and mark any cloth used for practice. For a suspected fracture, keep the injured part still and seek medical care.

Write the kit location in words a guest would understand. For hands-on bandaging, use an instructor-led first-aid course.

AT THE TABLE

Could someone else find your kit if you were the one who needed help?

Sources 13

The spare toothbrush

A COMPANION NOTE FROM MARIE

If you're putting together a bag for somebody staying over, tuck in a toothbrush. There are things a grown person shouldn't have to stand in a doorway and ask for.



FROM THE NOVEL

Siege of Mercy · Chapter 5 · The Verse in the Doorframe

A whole shelf of wrapped soap tells us the Refuge provisions for daily life. A toothbrush is a household companion to that scene and a quieter entry into the manual's dentistry section.

An individually packaged, soft-bristled toothbrush can meet an ordinary need on a hard day. The American Dental Association recommends brushing twice daily for two minutes with fluoride toothpaste. Pain, injury or swelling belongs with a dental professional.

TRY IT

Put an unopened brush and toothpaste in a clean guest-supply box. Keep the dental office number with the household contacts so a guest can ask privately if they need help.

A small hospitality box can have a brush, toothpaste and a clean towel without requiring anyone to explain why they came.

AT THE TABLE

Which ordinary item makes a borrowed room feel more livable?

Sources 14

The maternity contact card

A COMPANION NOTE FROM AVA

Before you offer somebody a ride, ask where she wants to go and who she wants called. Leave room for her answer.



FROM THE NOVEL

Siege of Mercy · Chapter 2 · Mercy Line

Pregnant Marta Ruiz stands in the mercy line when Marie approaches her. The exchange makes privacy and trust part of offering help.

A maternity contact card lets the person carrying it choose the clinician, support person and place of care. It is useful during pregnancy and after delivery, when urgent symptoms can still occur.

TRY IT

With her consent, write down the maternity unit's number, the clinician's after-hours number and a support contact. Let her keep the card. Seek immediate medical attention for trouble breathing, chest pain or heavy bleeding. In a life-threatening emergency in the U.S., call 911.

A private card can include the sentence “My first call for support is ___.” The person carrying it fills in the name.

AT THE TABLE

What would help a person accept an offer while keeping the decision in her hands?

Sources 15

The washbasin

A COMPANION NOTE FROM MARIE

There's a difference between carrying a basin into a sickroom and leaving the next person a clean place to wash.



FROM THE NOVEL

Siege of Mercy · Chapter 11 · Quarantine Cabin

Marie crosses the yard with a kettle and a basin. Inside the cabin, Ava is at the cot and Amber tends the stove. The work involves more than the person at the bedside.

A basin can collect used water at a temporary handwashing spot. Hands still need clean running or poured water, soap and a clean way to dry. A communal bowl of standing water is a poor place for several people to rinse.

TRY IT

At home, walk through the setup with clean supplies. Put the dispenser upstream of the basin, the soap within reach and clean towels away from splashes. Afterward, empty and clean the catch basin and replenish the supplies.

Follow one person's hands from soap to towel. If clean hands have to move a dirty cloth to finish, move the cloth.

AT THE TABLE

What would you change after watching someone use your washstand?

Sources 7 · 16

The spare blanket

A COMPANION NOTE FROM AMBER

Ask before you put it round somebody. Cold takes enough choices away on its own.



FROM THE NOVEL

Siege of Mercy · Chapter 1 · Cold Smoke

Through field glasses, Jason sees a woman wrapped in a blanket with a child beside her. A blanket tells the reader something about the cold before anyone gives the temperature.

Dry layers can help a person stay warm while shelter and help are arranged. Confusion, fumbling hands or slurred speech in someone exposed to cold can signal hypothermia, a medical emergency.

TRY IT

Keep a clean dry blanket where someone can lift it easily. For suspected hypothermia, get medical help immediately. Move the person gently to shelter if possible and replace wet clothing with dry coverings while help is on the way.

Try carrying the folded blanket one-handed. Pick a storage spot that leaves the other hand free to open a door.

AT THE TABLE

Who would have trouble reaching the spare blanket where it sits now?

Sources 17

Miss Fran’s leaf sample

A COMPANION NOTE FROM MISS FRAN

Turn the leaf over. The top’s had its say.



FROM THE NOVEL

The Refuge · Chapter 40 · Harvest of Abundance

Marie brings a box of clippings and damaged leaves to the garden cottage. Miss Fran tilts a cutting to the light and turns another leaf. Mildew and hornworms become specific problems they can discuss.

A dated drawing or photograph keeps a plant observation useful after the leaf curls or dries. Include both surfaces, the plant it came from and what was growing beside it. A single picture can leave the cause uncertain.

TRY IT

Choose a familiar garden plant you have permission to examine. Photograph the whole plant and both sides of a leaf. Record the date and what you actually saw before asking your local extension office about a possible cause.

“Two holes along the edge” is an observation. The name of the insect belongs on a separate line when you know it.

AT THE TABLE

What have you found on the underside of a leaf that you missed from above?

Sources 18 · 19

The medicine list

A COMPANION NOTE FROM AVA

If it came from the pantry shelf instead of the pharmacy, I still want to know you're taking it.



FROM THE NOVEL

Siege of Mercy · Chapter 11 · Quarantine Cabin

Ava checks a shelf that includes medicines, honey and ginger. The novel shows what the community has on hand. A list for a clinician must also say what one particular person actually takes.

Prescription medicines, over-the-counter products and supplements belong on the same list. Bringing their labeled names and strengths to a pharmacist or clinician helps them check for interactions. Keep the list private and current.

TRY IT

Copy from the labels and record how you actually take each product. Add the date of the update. Take discrepancies to the pharmacist or clinician before making any change.

Useful columns are product name, labeled strength, how taken and last updated. An unlabeled bottle needs an answer from the pharmacist.

AT THE TABLE

Would a trusted person know where to find your current list without seeing it on the wall?

Sources 20

The soil sample box

A COMPANION NOTE FROM MISS FRAN

That wet corner and your good bean row don't belong in the same sample. You'd get an answer that fit neither one.



FROM THE NOVEL

The Refuge · Chapter 40 · Harvest of Abundance

Marie takes garden evidence to Miss Fran. The manual looks under the plants, at the soil supporting them. A sample gives a local lab something it can measure.

A soil test represents the area you actually sampled. A single unusual patch can distort a result meant to describe a whole bed. The useful first decision is where one sample area ends and the next begins.

TRY IT

Sketch your growing area and label beds with different histories. Follow your extension lab's instructions for sampling depth and quantity. Combine subsamples only from the same area and put its name on both the box and the sketch.

"Upper vegetable bed" and "low wet corner" get separate labels. A year later, the same labels let you compare like with like.

AT THE TABLE

Which patch in your yard always behaves differently from the rest?

Sources 21

The orchard tag

A COMPANION NOTE FROM MISS FRAN

“Apple” is a beginning. If nobody knows the variety, leave me the word unknown and show me which tree it is.



FROM THE NOVEL

The Refuge · Chapter 3 · Paradise Found and Fixed

Jason and Marie discover an old orchard with apples and pears. The book names the fruit without assigning varieties to the trees.

A tree record can hold two kinds of history. On a grafted apple tree, the scion is the fruiting variety and the rootstock forms the roots. A known name, a date and a map position are worth keeping even when one of those details is missing.

TRY IT

Sketch the trees in a yard you know. Give each a reference number and transfer any nursery label exactly. Record a harvest or flowering date when you observe it. Use a map entry or loose, checked label that cannot girdle the tree.

Tree 2 • pear • variety unknown • beside the path. Add a date when there is a blossom or fruit to record.

AT THE TABLE

Does a fruit tree in your family have a name that never appeared in a catalog?

Sources 22

The pond journal

A COMPANION NOTE FROM TOM

Come back to the same spot next week. A pond can look different just because you changed where you stood.



FROM THE NOVEL

The Refuge · Chapter 3 · Paradise Found and Fixed

The old camp has a small pond tucked among trees. The manual later imagines a managed fish pond. A record of an existing pond starts before any decision about stocking or building.

A repeatable observation tells more than one attractive snapshot. Use the same bank-side viewpoint and record weather, water level against a fixed feature and visible activity. A clear surface by itself says little about water quality.

TRY IT

From a safe, dry public viewpoint or with the owner's permission, draw the waterline against one rock or post. Add the date and recent weather. Compare the next observation from that same place. Leave depth and water chemistry blank unless measured.

"Water reaches the fork of the fallen branch" gives a second observer something to look for.

AT THE TABLE

What landmark would let two people compare the waterline a week apart?

The track sketch

A COMPANION NOTE FROM TOM

Mud gives you part of a print. Don't make up the toes it kept.



FROM THE NOVEL

Siege of Mercy · Chapter 7 · Thin Margins

Wilson puts his nose down beside the rabbit hutch. The ground there is soft enough to hold marks and wet enough to blur them. The reader exercise turns to ordinary wildlife observation.

For an animal print you encounter on a familiar public path, shape and scale are more useful than a confident species name. Soft mud can stretch an edge or lose a toe. Leave animals and any active dens undisturbed.

TRY IT

Sketch one already-visible animal print from the path, with a ruler beside it if you can do so safely. Note the surface and which part of the outline is indistinct. A drawing and an honest question belong on the same page.

"Four toe marks visible, left edge washed out" preserves more evidence than a guessed identification.

AT THE TABLE

When did you last change your mind after looking at something a second time?

The food thermometer

A COMPANION NOTE FROM MARIE

Somebody at the far end of the table is trusting the cook. I'd like the cook to have a better answer than "it looked done."



FROM THE NOVEL

Siege of Mercy · Chapter 2 · Mercy Line

Sean portions bread while the family readies broth for the line. Sharing food makes the cook responsible to people who never see the kitchen. A food thermometer carries that responsibility into an ordinary meal.

Color and cooking time alone cannot establish that meat or poultry has reached a safe internal temperature. A food thermometer checks the interior. The target depends on the food.

TRY IT

Read the instructions for the probe you own. For poultry, USDA lists 165°F. Measure in the thickest portion away from bone, following the guidance for the particular cut. Clean the probe between uses and after checking.

Write the food beside its target. "Poultry • 165°F" is more useful than a loose number clipped to the fridge.

AT THE TABLE

What kitchen tool did your family start using only after somebody showed you why?

Sources 23 · 24

The four eggs in the nesting box

A COMPANION NOTE FROM SEAN

Count again if you need to. There are still four, and somebody has to decide who eats first.



FROM THE NOVEL

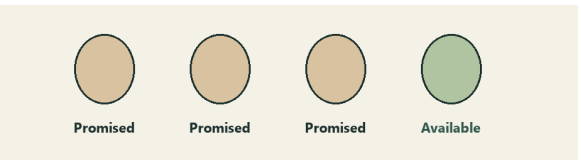
Siege of Mercy · Chapter 7 · Thin Margins

Sean opens the nesting box with Sara beside him. Four eggs lie in the straw. Sara asks about the nursery. What the hens actually laid matters more than what the Refuge once got on a good day.

A daily count can hold two truths at once. One column records what arrived. Another records what was promised. Keeping the two visible lets a household explain a shortfall before it breaks its word.

TRY IT

Use four counters to stand for the eggs. Set down two paper slips for competing needs. Move the counters, then write the allocation in plain words. Have a second person read the total back.



If the box holds four and three are committed, one remains available. Promising two more would spend the same egg twice.

AT THE TABLE

When there is less than you expected, who needs to hear it from you first?

The honey jar

A COMPANION NOTE FROM MISS FRAN

A jar of honey tells you somebody's been working. If you want to know what's visiting your flowers, take a chair outside.



FROM THE NOVEL

Siege of Mercy · Chapter 11 · Quarantine Cabin

Ava finds honey among the dwindling supplies on the cabin shelf. The manual approaches honey from the other side of the jar, out where bees visit flowers.

Watching a patch of blooms introduces pollination without opening a hive or handling an insect. A count of visits is different from a count of individual bees. The same visitor can return several times.

TRY IT

Choose a flowering patch you can watch from a comfortable distance. Set a five-minute timer and tally each visit to a flower. Record time, weather and plant. Repeat on another day, keeping the observation period the same.

Three visits during five minutes is a record you can compare. It does not establish that three different bees visited.

AT THE TABLE

Which flower near your home would you choose for five quiet minutes?

Sources 25

Sean’s grain slate

A COMPANION NOTE FROM SARA

Chalk rubs off. Before anybody wipes the board, give me the unit and the date.



FROM THE NOVEL

Siege of Mercy · Chapter 12 · The Leak

Sean keeps wood and grain tallies on a chalkboard. Sara has a ledger and can carry yesterday’s numbers forward after the board is needed for something new.

A slate is made to be reused. That makes it good for a running total and a poor place for the only surviving copy. Weight and container counts also answer different questions when sacks come in different sizes.

TRY IT

Weigh or count one ordinary dry pantry item using a consistent unit. Write the opening figure, today’s change and the new balance. Copy the closing figure into a dated record before erasing the slate.

Practice in pounds. Start at 12, use 3, finish at 9. If you switch to counting bags, start a new row labeled in bags.

AT THE TABLE

Which number in your house disappears the moment somebody clears a board or screen?

The weather radio

A COMPANION NOTE FROM TOM

Listen long enough to hear a place name you recognize. A working speaker is only half the test.



FROM THE NOVEL

The Refuge · Chapter 3 · Paradise Found and Fixed

The Wilders use GMRS radios around the property, including during storms. A NOAA Weather Radio receiver gives a household a different service, listening to official weather broadcasts.

A radio that can receive NOAA Weather Radio broadcasts can bring you local weather information. Some models can sound alerts. A plain AM/FM receiver or a two-way radio without weather reception does not automatically serve that function.

TRY IT

Check the receiver's manual for weather-band coverage, local station settings and backup power. Use the weather service's station information and listen for a local forecast. Put the instructions where another person can use them.

On the radio card, write the station or channel you actually received, the room you tested and the date.

AT THE TABLE

Could somebody else in your home tune in for the local forecast?

Sources 26

The chapel bell

A COMPANION NOTE FROM PASTOR THOMPSON

A bell can call us to prayer. It cannot tell me whether the man at the far end of the road heard it.



FROM THE NOVEL

Siege of Mercy · Prologue · The Bell in Daylight

The chapel bell opens Siege of Mercy. Its familiar call to prayer makes the different urgency in its sound mean something to the people on the ridge.

A shared sound can gather attention. A message still needs an intended listener and a way to learn whether it arrived. That distinction matters to a household checking on neighbors after bad weather.

TRY IT

With someone who has agreed to be a contact, try one ordinary check-in. Say who is calling, what you need and when you will check back. Ask for a reply. Use a phone call, text or paper note that works for both of you.

A short reply such as “I can bring the groceries at four” completes a handoff that a ringing bell could only begin.

AT THE TABLE

Who in your community might miss a message that everyone assumes they heard?

Sources 29

The battery compartment

A COMPANION NOTE FROM JASON

Good lettering is cheap. So is taking one more look before the cover goes back on.



FROM THE NOVEL

The Refuge · Chapter 3 · Paradise Found and Fixed

Marie helps Jason label wires at the lodge. A set of household batteries is a smaller example of the same problem. Useful marks need to stay with the equipment they describe.

The plus and minus marks in a battery compartment show how the cells belong in that particular device. Two neighboring cells may face different directions. A drawing from a different device is a poor guide.

TRY IT

With the device switched off, find its battery type and markings. Follow its instructions and match the symbols inside each slot. Use a matching new set as directed. Keep loose batteries in their packaging, away from children and metal objects.

Put a paper note with the device's name and battery size beside the unopened spares.

AT THE TABLE

Which device in your house is hardest to match with the right spare batteries?

Sources 27

The pH strip

A COMPANION NOTE FROM MISS FRAN

I'd like a test to answer the question I asked it. A strip that changes color has one job.



FROM THE NOVEL

The Refuge · Chapter 40 · Harvest of Abundance

Miss Fran studies a cutting Marie brings her. She works out what she can see before deciding what else she needs to know. The manual's indicator lesson starts with the same discipline.

A commercial pH strip gives an approximate reading by comparison with its own color chart. It answers a question about acidity or alkalinity. It cannot show that a sample is safe to drink or that a preservation recipe is safe.

TRY IT

For a classroom-style comparison, use fresh strips and separate small samples of plain water and diluted lemon juice. Follow the package timing, compare with its chart and discard the samples. Record a range when the colors fall between swatches.

Use the chart supplied with the strips. A color from a different manufacturer may mean a different reading.

AT THE TABLE

Which part of an observation would you leave as a range?

Sources 28

The porch shadow

A COMPANION NOTE FROM JASON

You can argue about where the shade ought to fall, or you can set down a chair and come back after lunch.



FROM THE NOVEL

The Refuge · Chapter 4 · Shenanigans and Serenity in the Wilderness

Marie's bowl of cherry tomatoes rests on the porch rail while Jason works on a rocker. The porch connects the garden and the shop. Its changing shade offers a way to read the building.

A roof overhang casts a shadow that moves as the sun changes position. The manual's passive-solar designs start with orientation. A household can learn something useful by recording light at an existing window or porch.

TRY IT

Sketch the same part of a porch at two stated times on one day. Mark the edge of shade without looking at the sun. Repeat in a different season before making a lasting decision about a screen, chair or planting.

A plan marked "9 a.m. • November" can disagree honestly with another marked "3 p.m. • June."

AT THE TABLE

Which seat on a porch becomes the favorite at a particular hour?

The folding table

A COMPANION NOTE FROM MARIE

A place at the table starts before the meal. Can the person coming through the door reach it?



FROM THE NOVEL

Siege of Mercy · Chapter 2 · Mercy Line

Jack and Aaron haul two folding tables toward the gate. Before the broth can reach anyone, somebody has to decide where the cups, bread and people will go.

A plan view makes the work of welcome visible. A table can block a doorway, put cups beyond someone's reach or force a person to cross the serving line twice. A person who uses the route can spot what a drawing misses.

TRY IT

On scrap paper, mark the entrance and lay down a rectangle for a table. Mark where a guest arrives, receives a cup and leaves. Invite someone to try the route and tell you where they would want help or more room.

Move the paper table once and trace the route again. Keep the version the people using it can manage.

AT THE TABLE

What would you move first if a guest needed to receive a meal while seated?

The tin cup

A COMPANION NOTE FROM MARIE

The cup in your cupboard is a real cup. Whether it holds one measuring cup is another question.



FROM THE NOVEL

Siege of Mercy · Chapter 2 · Mercy Line

Aaron brings a crate of tin cups while Jack handles the pots. With many people waiting, a small difference between the expected portion and the actual pour can empty a pot early.

A kitchen measuring cup is a unit. A tin drinking cup is a vessel whose volume you can measure. Naming both prevents an innocent promise of twelve servings when the pot contains only eight.

TRY IT

At the sink, fill a drinking cup to its ordinary serving level with measured cold water. Write the quantity down. Multiply the number of guests by that serving size, using one unit throughout.

12 servings	×	½ cup	⟶	6 cups
12 servings	×	¾ cup	⟶	9 cups

Twelve half-cup portions require 6 U.S. measuring cups. A cup that holds three-quarters instead would require 9.

AT THE TABLE

Which cup or ladle in your kitchen would you measure first?

The library copy

A COMPANION NOTE FROM SARA

Let somebody who wasn't here read it. If they have to come find me, I owe them another sentence.



FROM THE NOVEL

Siege of Mercy · Chapter 12 · The Leak

At the library table, Sara turns back through the ledger. A note written on one day can answer a question nobody thought to ask until later.

The master closes with printing and preservation. A household version starts with a legible, dated copy of one useful instruction. A second pair of eyes can find the step the writer skipped because it felt obvious.

TRY IT

Choose a harmless skill, such as finding the right seed jar or mending a glove seam. Write it for a beginner. Ask another person to try it using only the note. Revise the place where they got stuck, date it and keep a second copy.

Good last line for a handoff sheet: "Tried by ___ on ___." The blank belongs to the next reader.

AT THE TABLE

What is one thing you know how to do that someone else ought to have in writing?

The pantry ledger

Siege of Mercy · Chapter 1

Make one sheet for one unit of stock. Count what is present before deciding how much is available to share.

Shelf or item _____

Unit _____

Counted by _____

Date _____

Opening	Received	Used	On hand	Set aside	Available
8 jars	1	2	7	1	6

If a count and the shelf disagree, write what you found and the date you corrected it.

_____

_____

On hand = opening + received − used. Available = on hand − set aside.

The garden evidence sheet

The Refuge · Chapter 40

Use a sketch or photograph to show another gardener exactly which plant and which part you looked at.

Bed or location

Plant or variety

Observation date

Observer

Where on the plant	What I actually saw	What I still need to check
Lower leaf, underside	Two holes near the edge	What made them?

Sketch both sides of the leaf or write the names of the two photos you took.

A question belongs on the record even when you cannot name the cause.

Setting a place at the table

Siege of Mercy · Chapter 2

Walk the route a guest will take. Invite someone who uses it to change your first arrangement.

Place and occasion

Who will try the route

Date

Next check

Part of the visit	What might be awkward	Change to try
Receiving a cup	Pickup is out of reach	Move cups to the near edge

Name one thing a guest can choose and one thing you can put within easier reach.

Use ordinary descriptions. Leave personal health information off shared sheets.

The second copy

Siege of Mercy · Chapter 12

Choose one harmless skill worth passing on. Let a second person work from the page before you call it finished.

Skill

Written by

Tried by

Date and version

Step	What the reader needs to do	What needed another sentence
1	Find the jar marked for planting	Name the shelf

Where will the next person find the dated copy? What changed after the first try?

Keep one copy with the work and another where the household keeps its records.

Sources for the field notes

Each numbered title opens the source used for that note. A chapter reference on the note identifies its connection to the novels.

01 **CDC**
Making water safe in an emergency

02 **CDC**
Creating and storing an emergency water supply

03 **U.S. Consumer Product Safety Commission**
Carbon monoxide alarms and prevention

04 **University of Minnesota Extension**
Saving vegetable seeds

05 **National Center for Home Food Preservation**
Ensuring safe canned foods

06 **University of Georgia Cooperative Extension**
Drying fruits at home

07 **CDC**
Hand hygiene questions and answers

08 **U.S. Food and Drug Administration**
Juice safety

09 **CDC**
Collecting rainwater and your health

10 **Copper Development Association**
Wrought brasses by composition

11 **Siemens Stiftung**
How Stirling engines work

12 **National 911 Program**
Calling 911

13 **American Red Cross**
Recognizing and responding to fractures

14 **American Dental Association**
Brushing your teeth

15 **CDC Hear Her**
Urgent maternal warning signs

Sources for the field notes

Each numbered title opens the source used for that note. A chapter reference on the note identifies its connection to the novels.

16 **CDC**
Hygiene and respiratory virus prevention

17 **CDC**
Preventing hypothermia

18 **University of Minnesota Extension**
Diagnostic help for fruit and vegetable growers

19 **University of Minnesota Extension**
Tomato hornworms in home gardens

20 **U.S. Food and Drug Administration**
Mixing medicines and dietary supplements

21 **Alabama Cooperative Extension System**
Home soil testing and taking a sample

22 **University of Minnesota Extension**
Choosing apple rootstocks

23 **USDA Food Safety and Inspection Service**
How to use a food thermometer

24 **FoodSafety.gov**
Safe minimum internal temperatures

25 **Xerces Society**
Citizen science pollinator monitoring guide

26 **National Weather Service**
NOAA Weather Radio receivers

27 **Energizer**
Household battery care

28 **American Chemical Society**
Comparing pH indicator colors

29 **U.S. Army Ready**
Making a family communication plan