THE PRINTABLE PACK

Every ready list in the book, plus the materials list for each of the 45 projects.

HOW TO USE IT

Print a list, take it to the garage or the pantry, check the boxes, and print it again next season. It prints well in black and white on any home printer. Steps, photos and safety rules stay in the book: each project here gives its skill number.

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For your own household. Please don't sell or share this file. © 2026 Walt Harmon. Always follow the safety notes in the book; when a list and the book differ, the book is right.

READY LIST · THE WHOLE HOUSE

A TWO-WEEK PANTRY

For one adult, two weeks, about 2,000 calories a day. Multiply by the people in your house, store what you already eat, and rotate it (see 4.18).

GRAINS AND STARCHES

- [ ] White rice, 5 lb (2.3 kg)
- [ ] Rolled oats, 3 lb (1.4 kg)
- [ ] Pasta, 3 lb (1.4 kg)
- [ ] Flour, 5 lb (2.3 kg), if you bake
- [ ] Crackers, 2 boxes

PROTEIN

- [ ] Canned beans, 6 cans (15 oz each)
- [ ] Canned tuna or chicken, 6 cans
- [ ] Peanut butter, 1 jar (40 oz)
- [ ] Dried lentils or split peas, 2 lb (0.9 kg)
- [ ] Powdered milk, 1 lb (450 g)

FRUIT AND VEGETABLES

- [ ] Canned vegetables, 8 cans
- [ ] Canned fruit in juice, 6 cans
- [ ] Dried fruit, 1 lb (450 g)
- [ ] Onions, potatoes, apples, if you have a cool spot

FATS, FLAVOR AND COMFORT

- [ ] Cooking oil, 1 quart (1 L)
- [ ] Salt, 1 lb
- [ ] Sugar or honey, 2 lb (0.9 kg)
- [ ] Coffee or tea, two weeks' worth
- [ ] Bouillon, spices, vinegar

TO OPEN AND COOK IT

- [ ] Two manual can openers
- [ ] Matches in a sealed jar, two lighters
- [ ] A pot with a lid you can use on a fire
- [ ] Water for cooking: add 1 gallon (3.8 L) a week to the water list

CHECKED ON _____ · NEXT CHECK _____

1 WATER FOR TWO WEEKS

Everything this chapter keeps on hand for two weeks without a tap. Check it twice a year, on the days you rotate the water.

STORED WATER

- [ ] 14 gallons per person: 1 gallon a day
- [ ] Extra for pets, hot weather, pregnancy, illness
- [ ] Food-grade jugs, 1 to 7 gallons, labeled and dated
- [ ] 1 barrel, 55 gallons, on a pallet (family of four)
- [ ] Bottled water within its date
- [ ] Ice cubes in the freezer

MAKE IT SAFE

- [ ] Unscented bleach, 5% to 9%, fresh bottle (8 drops per gallon)
- [ ] Medicine dropper
- [ ] 2% tincture of iodine (5 drops per quart)
- [ ] Pot with a lid (boil 1 minute; 3 above 6,500 feet)
- [ ] Coffee filters or cotton cloths
- [ ] Clear plastic bottles, 2 liters, for the sun method (6 hours)
- [ ] Two-bucket filter, rinsed and ready

TOOLS AND SPARES

- [ ] Bung wrench for barrel caps
- [ ] Siphon hose, 6 feet
- [ ] Hose labeled safe for drinking water
- [ ] Clean pitcher or scoop, water only
- [ ] Funnel
- [ ] Masking tape and permanent marker
- [ ] Screwdriver for the heater drain
- [ ] Spare window screen and bungee cords

RESERVES IN THE HOUSE

- [ ] Main water valve found and tagged
- [ ] Water heater: drain, inlet valve, gas or power tagged
- [ ] Rain barrel with screened, locked lid
- [ ] First-flush diverter cap cleaned

TWICE A YEAR

- [ ] Use the oldest water; sanitize and refill
- [ ] New labels with the date
- [ ] Check jugs for leaks and green tint
- [ ] Check the bleach date
- [ ] Brush the barrel screen; drain barrels before frost

CHECKED ON _____ · NEXT CHECK _____

2 LIGHT, HEAT AND COOKING WHEN THE POWER IS OUT

Check these off before winter, and again each fall. Keep them together, in one place everyone knows.

LIGHT

- [ ] Flashlight, 1 per person
- [ ] Spare batteries, 2 sets per flashlight
- [ ] Jar oil lamp, 1 per room you use (2.2)
- [ ] Cooking oil for lamps, 1 quart
- [ ] Cotton wicks, 6 spare
- [ ] Candles, 12, with steady holders
- [ ] Kitchen matches in a sealed jar, 2 boxes
- [ ] Kerosene lantern and 1 gallon of 1-K kerosene, if you use one

HEAT

- [ ] Battery CO alarm, 1 per floor
- [ ] Battery smoke alarm, 1 per floor
- [ ] Wool blankets, 2 per person
- [ ] Wool hats and socks, 1 set per person
- [ ] Plastic sheeting, 4 mil, 1 roll
- [ ] Duct tape, 2 rolls
- [ ] Seasoned firewood, stacked and covered
- [ ] Kindling and fire starters, 1 box (2.8)
- [ ] Bricks for the bed, 2 per bed (2.15)

COOKING

- [ ] Tin can rocket stove, outdoors only (2.1)
- [ ] Cast-iron Dutch oven with lid
- [ ] Heavy pot with a tight lid
- [ ] Haybox: box, hay or blankets, cushion (2.5)
- [ ] Food thermometer
- [ ] Manual can opener
- [ ] Rice, oats and dried beans, 2 weeks
- [ ] Lid lifter and leather gloves

FIRE SAFETY

- [ ] ABC fire extinguisher, 1 per floor
- [ ] Metal lid next to the stove
- [ ] Bucket of dry sand by the stove
- [ ] Shovel and a bucket of water outdoors
- [ ] Safety glasses for splitting
- [ ] Lamp oil locked away from children

CHECKED ON _____ · NEXT CHECK _____

READY LIST · THE WHOLE HOUSE

THE HOUSE EMERGENCY KIT

One kit, one place everyone knows. Check it twice a year, when the clocks change, and replace what has expired.

FIRST AID

- [ ] Gauze pads and rolls, adhesive bandages, medical tape
- [ ] Disposable gloves, 2 pairs or more
- [ ] Antiseptic wipes and clean water for rinsing
- [ ] Tweezers, small scissors, a thermometer
- [ ] Pain and fever reliever for adults and children
- [ ] Oral rehydration packets (or the recipe in 6.9)
- [ ] A 7-day supply of every prescription medicine, plus copies of the prescriptions

LIGHT AND WARMTH

- [ ] Two flashlights or headlamps and spare batteries
- [ ] Battery carbon monoxide and smoke alarms, tested
- [ ] Candles, holders and matches (see 8.21)
- [ ] Wool blankets, one per person
- [ ] Hats and gloves for everyone

TOOLS AND SUPPLIES

- [ ] Whistle, one per person
- [ ] Multi-tool or pliers, duct tape, cord
- [ ] Plastic sheeting and work gloves
- [ ] Wrench that fits your shutoffs (see 8.16)
- [ ] Battery or hand-crank weather radio

PAPERS AND CASH

- [ ] Copies of IDs, insurance and deeds in a waterproof bag
- [ ] Cash in small bills
- [ ] The House Book and contact list (see 8.2)
- [ ] Paper map of your area

SANITATION

- [ ] Heavy garbage bags and ties
- [ ] A bucket with a tight lid
- [ ] Unscented household bleach
- [ ] Toilet paper, soap, hand sanitizer

CHECKED ON _____ · NEXT CHECK _____

7 THE CLEAN AND HEALTHY KIT

Everything this chapter uses, kept in one closet. Amounts are for a household of four for about two weeks.

SOAP AND LAUNDRY

- [ ] Bar soap, 12 bars
- [ ] Laundry powder or flakes, 2 lb (0.9 kg)
- [ ] Washing soda, 1 box
- [ ] Washboard and two tubs, or a bucket and a new plunger
- [ ] Clothesline, 40 ft (12 m), and 2 dozen pins
- [ ] Rubber gloves, 2 pairs

TOILET AND WASTE

- [ ] Two 5-gallon buckets with lids, one toilet seat
- [ ] Heavy trash bags, 50, and ties
- [ ] Sawdust or shredded paper, 2 large sacks
- [ ] Toilet paper, 24 rolls
- [ ] Two trash cans with lids and bungee cords

CLEAN AND DISINFECT

- [ ] Unscented bleach, 1 gallon, dated
- [ ] Measuring spoons and a gallon jug marked BLEACH
- [ ] White vinegar, 1 gallon
- [ ] Baking soda, 4 lb (1.8 kg)
- [ ] Three dishpans and a drying rack
- [ ] Spray bottle, labeled

BODY AND HANDS

- [ ] Hand sanitizer, at least 60% alcohol, 4 bottles
- [ ] Toothbrushes and fluoride toothpaste, one spare each
- [ ] Washcloths and towels, 2 per person
- [ ] Metal nit comb
- [ ] Cloth pads or diapers, if you use them

PESTS

- [ ] Snap traps, 6
- [ ] Steel wool, 1 pack, and caulk
- [ ] Fly paper, 1 roll
- [ ] Window screen patches

CHECKED ON _____ · NEXT CHECK _____

READY LIST · THE WHOLE HOUSE

THE GARDEN YEAR, FOUR SEASONS

Count the weeks from your own last and first frost dates (see 3.20). Warm states start earlier; cold states later.

LATE WINTER

- [ ] Plan the beds and check the seeds you saved
- [ ] Prune fruit trees while they sleep (see 3.13)
- [ ] Sprouts on the counter (see 3.12)
- [ ] 6 to 8 weeks before last frost, start tomatoes and peppers on a sunny windowsill

SPRING

- [ ] 4 weeks before last frost, sow peas, spinach and lettuce outside
- [ ] 2 weeks before, plant potatoes
- [ ] After last frost, sow beans, squash and corn
- [ ] Set out tomato and pepper plants
- [ ] Mulch every bed once the soil is warm

SUMMER

- [ ] Water deeply twice a week, at the roots
- [ ] Sow lettuce again every 3 weeks, in light shade
- [ ] Pick beans and squash young and often
- [ ] Harvest garlic when the lower leaves turn brown
- [ ] Save seeds from your best plants (see 3.2)

FALL

- [ ] Cure onions and winter squash before storing
- [ ] Plant garlic a few weeks before the ground freezes
- [ ] Sow greens in the cold frame (see 3.3)
- [ ] Store roots in sand (see 4.3)
- [ ] Pile leaves on the compost heap

CHECKED ON _____ · NEXT CHECK _____

PROJECT · CHAPTER 1 · WATER

1.1 RAIN BARREL FROM A DOWNSPOUT

Time: about 3 hours, plus a day to test · Cost: about $40 with a used barrel · $0-$10 from what you have · Steps and safety: skill 1.1 in the book

WHAT YOU NEED

- [ ] 1 barrel, 50 to 55 gallons (190-208 L), food-grade plastic or oak, with a lid
- [ ] Soap and water to clean the barrel first (see 1.23)
- [ ] 1 spigot, ¾ inch, with 2 rubber washers and a locknut
- [ ] 1 hose adapter, ¾ inch, with 2 washers and a locknut, for the overflow
- [ ] 1 old garden hose, 6 feet (1.8 m) or longer
- [ ] 4 concrete blocks, 8 × 8 × 16 inches (20 × 20 × 40 cm)
- [ ] 2 buckets of gravel
- [ ] 1 piece of window screen, 14 × 14 inches (35 × 35 cm)
- [ ] 1 bungee cord long enough to circle the lid
- [ ] 1 flexible downspout elbow
- [ ] Plumber's tape (PTFE)

TOOLS

- [ ] Hand drill or brace, ½-inch and 1-inch bits · or the ½-inch bit, then open the hole with a round rasp
- [ ] Keyhole saw · or a sharp utility knife (plastic lids only)
- [ ] Hacksaw · or tin snips
- [ ] 2-foot level · or a pan of water set on a straight board
- [ ] Adjustable wrench, tape measure, marker, shovel

PROJECT · CHAPTER 1 · WATER

1.2 BOTTLE WATER FILTER (GRAVEL, SAND, CHARCOAL)

Time: about 1 hour to build, plus 20 minutes to rinse it through · Cost: $0-$5 from what you have · Steps and safety: skill 1.2 in the book

WHAT YOU NEED

- [ ] 1 clear plastic soda bottle, 2 liters, with its cap
- [ ] 1 coffee filter or a square of cotton T-shirt, 6 × 6 inches (15 × 15 cm)
- [ ] 1½ cups of charcoal, crushed to pea size (make it in 1.10)
- [ ] 2 cups of fine sand
- [ ] 1½ cups of pea gravel
- [ ] 1 clean quart jar to catch the water
- [ ] 3 feet (1 m) of string, for hanging
- [ ] 2 buckets of clean water, for washing the layers

TOOLS

- [ ] Utility knife · or sharp kitchen scissors
- [ ] Nail and hammer · or an awl or a small screwdriver, twisted through
- [ ] Kitchen strainer · or a colander lined with a dish towel

PROJECT · CHAPTER 1 · WATER

1.3 TWO-BUCKET GRAVITY FILTER WITH HOMEMADE CHARCOAL

Time: about 3 hours, plus a day of rinsing · Cost: about $25 for buckets and a spigot · $0-$10 from what you have · Steps and safety: skill 1.3 in the book

WHAT YOU NEED

- [ ] 2 food-grade buckets, 5 gallons (19 L) each, with one lid
- [ ] 1 spigot, ¾ inch, with 2 rubber washers and a locknut
- [ ] 4 quarts of homemade charcoal, crushed to pea size (1.10)
- [ ] 6 quarts of fine sand
- [ ] 3 quarts of pea gravel
- [ ] 2 squares of cotton cloth, 12 × 12 inches (30 × 30 cm)
- [ ] 1 small plate or saucer, to break the pour
- [ ] Plumber's tape (PTFE)

TOOLS

- [ ] Hand drill or brace, ⅛-inch and 1-inch bits · or a nail heated in a candle flame, held with pliers, for the small holes
- [ ] Keyhole saw · or a sharp utility knife
- [ ] Marker, tape measure, adjustable wrench

PROJECT · CHAPTER 1 · WATER

1.4 SOLAR STILL: WATER FROM SOIL AND PLANTS WITH A SHEET

Time: about 1 hour to dig, then a day of sun · Cost: about $10 for plastic sheeting · $0 from what you have · Steps and safety: skill 1.4 in the book

WHAT YOU NEED

- [ ] 1 sheet of clear plastic, 6 × 6 feet (about 2 × 2 m), the thinner the better
- [ ] 1 clean cup, pot or wide jar
- [ ] 1 piece of plastic tubing, 4 feet (1.2 m), for drinking without lifting the sheet
- [ ] 2 armfuls of green leaves and grass
- [ ] 10 to 15 rocks the size of a fist, and 1 smooth pebble

TOOLS

- [ ] Shovel · or a garden trowel and more time
- [ ] Tape measure · or your stride: about 3 feet a step

1.5 PROJECT · CHAPTER 1 · WATER

SPRING BOX OR SEEP WELL DUG BY HAND

Time: about 2 days of digging, plus 2 weeks for the water test · Cost: about $150-$300 for a box, pipe and gravel · $40 with a used drum · Steps and safety: skill 1.5 in the book

WHAT YOU NEED

- [ ] 1 spring box at least 4 feet (1.2 m) deep, concrete or food-grade plastic, with an overlapping lid
- [ ] 20 feet (6 m) of perforated drain pipe, 4 inches, for a seep
- [ ] Solid pipe, 4 inches, long enough to reach from the collector to the box
- [ ] 2 pipes, 1½ inches, for the outlet and the overflow, plus a square of window screen
- [ ] 1 drain plug or valve for the bottom of the box
- [ ] About 1 cubic yard (0.75 m^3) of washed gravel, ¾ to 1½ inches
- [ ] 1 sheet of heavy plastic, 6 mil, as long as the trench
- [ ] Fence posts and wire to keep animals out
- [ ] Unscented household bleach for the first disinfection

TOOLS

- [ ] Shovel and mattock · or a pick and a spade
- [ ] Wheelbarrow · or two buckets and more trips
- [ ] Hacksaw · or a pruning saw for plastic pipe
- [ ] Level, tape measure, stakes and string

1.6 PROJECT · CHAPTER 1 · WATER

A YEAR OF WATER: BARRELS, JUGS AND THE WATER HEATER

Time: about 3 hours to set up, then 30 minutes twice a year · Cost: about $60-$120 for jugs and a barrel · $0-$20 from what you have · Steps and safety: skill 1.6 in the book

WHAT YOU NEED

- [ ] Food-grade water jugs, 1 to 7 gallons each, enough for 14 gallons (53 L) per person
- [ ] 1 food-grade barrel, 55 gallons (208 L), opaque, with screw caps
- [ ] 1 hose labeled safe for drinking water
- [ ] Unscented household bleach, 5% to 9% sodium hypochlorite, from a fresh bottle
- [ ] Dish soap and a bottle brush
- [ ] Masking tape and a marker
- [ ] A pallet or 4 boards to keep containers off the floor
- [ ] A barrel pump, or a 6-foot hose to siphon (1.24)

TOOLS

- [ ] Bung wrench for the barrel caps · or large adjustable pliers
- [ ] Measuring spoons and a funnel · or a cut-off bottle top as the funnel

2.1 PROJECT · CHAPTER 2 · FIRE, HEAT AND LIGHT

TIN CAN ROCKET STOVE

Time: about 1½ hours · Cost: about $5 · $0 from what you have · Steps and safety: skill 2.1 in the book

WHAT YOU NEED

- [ ] 1 large can,
- [ ] 3 soup cans, 15 ounces (425 g) each, labels off
- [ ] 1 strip of scrap can metal, 2 × 6 inches (5 × 15 cm)
- [ ] About 2 quarts (2 L) of wood ash, perlite (the white grit in potting soil) or dry sand
- [ ] Dry sticks no thicker than your thumb, and a twist of paper

TOOLS

- [ ] Tin snips · or heavy kitchen shears for the thin soup cans
- [ ] Hand can opener
- [ ] Hammer and a large nail · or a screwdriver tapped with a stone
- [ ] Pliers, marker, work gloves

2.2 PROJECT · CHAPTER 2 · FIRE, HEAT AND LIGHT

JAR OIL LAMP

Time: about 30 minutes · Cost: about $3 · $0 from what you have · Steps and safety: skill 2.2 in the book

WHAT YOU NEED

- [ ] 1 mason jar, pint size (500 ml), clean and dry
- [ ] 1 cup (240 ml) olive oil or vegetable oil
- [ ] 1 flat cotton wick, ¼ inch (6 mm) wide, 6 inches (15 cm) long
- [ ] 10 inches (25 cm) of bare steel or copper wire, about 18 gauge
- [ ] 1 saucer or small plate for the jar to stand on
- [ ] A spare wick and an extra cup of oil, kept in a box with the lamp

TOOLS

- [ ] Needle-nose pliers · or a pencil to wind the coil and your fingers
- [ ] Wire cutters · or bend the wire back and forth until it snaps
- [ ] Scissors and a long match

PROJECT · CHAPTER 2 · FIRE, HEAT AND LIGHT

2.3 DIPPED CANDLES FROM TALLOW OR BEESWAX

Time: about 2 hours for 6 pairs, plus a day to harden · Cost: about $20 for beeswax · $0 with tallow you render · Steps and safety: skill 2.3 in the book

WHAT YOU NEED

- [ ] 2 pounds (900 g) beeswax, or rendered tallow (beef fat)
- [ ] Square-braid cotton wick sized for ¾-inch candles, 30 inches (75 cm) for each pair
- [ ] 2 metal nuts or washers for each pair, as weights
- [ ] 1 tall metal can, 8 to 10 inches (20 to 25 cm) deep, for the dipping vat
- [ ] 1 pot wider than the can, with a folded rag in the bottom
- [ ] 1 wooden spoon handle or dowel to hang the pairs from
- [ ] Old newspaper to cover the table

TOOLS

- [ ] Candy thermometer · or stop heating as soon as the last lump of wax melts
- [ ] Double boiler · or the can standing on the rag in the pot of water
- [ ] Scissors and a sharp knife

PROJECT · CHAPTER 2 · FIRE, HEAT AND LIGHT

2.4 KEEP ONE ROOM WARM IN WINTER WITHOUT POWER

Time: about 2 hours to set up · Cost: about $15 for plastic sheeting and tape · $0 from what you have · Steps and safety: skill 2.4 in the book

WHAT YOU NEED

- [ ] 4 to 6 heavy blankets or quilts
- [ ] Clear plastic sheeting, 4 mil, enough for each window, and duct tape
- [ ] Rugs, towels and draft snakes for the floor and door gaps
- [ ] Wool hats, wool socks and two extra layers for everyone
- [ ] A card table or a small tent, and two more blankets
- [ ] 1 room thermometer
- [ ] 1 battery carbon monoxide alarm and 1 battery smoke alarm

TOOLS

- [ ] Hammer and small nails · or push pins or strong tape
- [ ] Scissors and a tape measure

PROJECT · CHAPTER 2 · FIRE, HEAT AND LIGHT

2.5 HAYBOX COOKER: FINISH COOKING WITH NO FUEL

Time: about 1 hour to build · cooking 1 to 4 hours · Cost: $0 from what you have · Steps and safety: skill 2.5 in the book

WHAT YOU NEED

- [ ] 1 sturdy box, crate or cooler with room for the pot plus 4 inches (10 cm) of insulation all round
- [ ] Hay, straw, wool blankets or crumpled newspaper to fill it
- [ ] 2 old pillowcases, one stuffed full for the top cushion
- [ ] 1 heavy pot with a tight lid, cast iron or thick steel
- [ ] 1 old towel to wrap the pot
- [ ] 1 food thermometer
- [ ] A kitchen timer or a watch, and a pencil to note the time the pot went in

TOOLS

- [ ] Needle and strong thread · or safety pins to close the pillowcase
- [ ] Scissors

PROJECT · CHAPTER 3 · FOOD FROM THE YARD

3.1 RAISED BED FROM SCRAP LUMBER

Time: about 3 hours, plus a day to settle · Cost: about $60 for soil mix · $0 for the frame from scrap boards · Steps and safety: skill 3.1 in the book

WHAT YOU NEED

- [ ] Scrap boards, 2 × 10 or 2 × 12 inches: two 8-foot (2.4 m) and two 4-foot (120 cm) lengths
- [ ] 4 corner posts of 4 × 4 lumber, 12 inches (30 cm) long
- [ ] 24 galvanized nails, 3½ inches (9 cm)
- [ ] 4 stakes and a ball of string
- [ ] Flattened cardboard boxes, tape and labels pulled off
- [ ] About 1 cubic yard (0.75 m^3) of soil mix, half topsoil and half compost
- [ ] Water from a hose, a rain barrel or a watering can
- [ ] 1 bale of straw or a bag of dry leaves for mulch

TOOLS

- [ ] Hand saw · or boards already cut to length
- [ ] Claw hammer
- [ ] Tape measure and carpenter's square · or the corner of a book for the square
- [ ] 2-foot level · or a pan of water set on a straight board
- [ ] Shovel and wheelbarrow · or two buckets

PROJECT · CHAPTER 3 · FOOD FROM THE YARD

3.2 SAVE SEEDS: BEANS, TOMATOES, LETTUCE

Time: about 1 hour of work, spread over the season · Cost: $0 from what you have · Steps and safety: skill 3.2 in the book

WHAT YOU NEED

- [ ] Ripe fruit or dry pods from open-pollinated plants (F1 on the label means hybrid: skip it)
- [ ] Glass jars, water and a fine kitchen strainer
- [ ] Paper plates or coffee filters
- [ ] Paper envelopes and a pencil
- [ ] 1 glass jar with a tight lid for storage
- [ ] 1 old pillowcase and 2 buckets
- [ ] A paper bag for each lettuce variety
- [ ] A warm shelf away from the kitchen, for the tomato jar (it smells)

TOOLS

- [ ] Kitchen knife and spoon
- [ ] Garden twine or ribbon · or strips of an old T-shirt

PROJECT · CHAPTER 3 · FOOD FROM THE YARD

3.3 COLD FRAME OR HOOP TUNNEL FROM OLD WINDOWS AND PIPE

Time: about 4 hours for both · Cost: about $40 for pipe and film · $0 for the frame from an old window · Steps and safety: skill 3.3 in the book

WHAT YOU NEED

- [ ] 1 old window with its glass whole, wood or vinyl frame
- [ ] Scrap boards, 2 × 12 inches, enough to go around the window
- [ ] 2 door hinges with screws, and 4 corner blocks of 2 × 2 lumber
- [ ] 2-inch (5 cm) galvanized nails
- [ ] 1 stick about 12 inches (30 cm) long, notched at 2, 4 and 6 inches, to prop the lid
- [ ] For the tunnel, 5 lengths of ¾-inch PVC pipe, 10 feet (3 m) each
- [ ] 10 pieces of rebar, 2 feet (60 cm) long
- [ ] 1 sheet of clear greenhouse film or 6-mil plastic, 14 × 25 feet (4.3 m × 7.6 m)
- [ ] 12 spring clamps, plus old boards or sandbags for the edges
- [ ] 1 min-max thermometer for inside the frame

TOOLS

- [ ] Hand saw and claw hammer
- [ ] Screwdriver · or the tip of a butter knife for small screws
- [ ] Small sledge or mallet · or a hammer and a flat rock
- [ ] Tape measure and pencil · or a knotted string

PROJECT · CHAPTER 3 · FOOD FROM THE YARD

3.4 COMPOST HEAP THAT ACTUALLY HEATS

Time: about 2 hours to build, 15 minutes a week to turn · Cost: about $25 for a compost thermometer · $0 from what you have · Steps and safety: skill 3.4 in the book

WHAT YOU NEED

- [ ] Browns, rich in carbon: dry leaves, straw, shredded newspaper, wood shavings
- [ ] Greens, rich in nitrogen: grass clippings, vegetable scraps, coffee grounds, chicken or horse manure
- [ ] About 2 to 3 buckets of browns for every bucket of greens
- [ ] 4 wooden pallets and some baling wire
- [ ] A handful of twigs for the bottom layer
- [ ] 1 old broom handle
- [ ] Water from a hose, a rain barrel or buckets
- [ ] 1 old tarp

TOOLS

- [ ] Garden fork · or a spade
- [ ] Compost thermometer with a 20-inch stem · or a metal rod pushed into the center for 5 minutes, then felt with your hand
- [ ] Pliers

3.5

PROJECT · CHAPTER 3 · FOOD FROM THE YARD

A FEW HENS: COOP FROM PALLETS

Time: about 2 weekends · Cost: about $90 for hardware cloth, roofing and hinges · $0 for the pallets · Steps and safety: skill 3.5 in the book

WHAT YOU NEED

- [ ] 6 to 8 sound pallets stamped HT (heated to kill pests), never MB (a chemical fumigant)
- [ ] 1 sheet of exterior plywood, ½ inch, 4 × 8 feet (120 × 240 cm), for the floor
- [ ] Old metal roofing or shingles, enough for about 5 × 5 feet
- [ ] 1 roll of hardware cloth, ½-inch mesh, 3 × 25 feet (90 cm × 7.6 m)
- [ ] 4 concrete blocks
- [ ] 1 straight branch or 2 × 4, 4 feet (120 cm) long, for the roost
- [ ] 2 milk crates or 5-gallon buckets on their sides, for nest boxes
- [ ] Hinges, a hasp with a snap hook, 3-inch screws and fence staples
- [ ] Pine shavings or straw for bedding

TOOLS

- [ ] Hand saw and claw hammer
- [ ] Pry bar · or a claw hammer and a block of wood
- [ ] Tin snips · or heavy wire cutters
- [ ] Screwdriver, tape measure and level

4.1

PROJECT · CHAPTER 4 · KEEPING FOOD

WATER BATH CANNING: JAMS, TOMATOES, PICKLES

Time: about 2 hours a batch, plus a day to cool · Cost: about $25 for a dozen jars with lids · $0 if you have a deep pot and jars · Steps and safety: skill 4.1 in the book

WHAT YOU NEED

- [ ] Mason jars free of nicks, half-pints for jam, pints or quarts for tomatoes and pickles
- [ ] New flat lids and screw bands to fit
- [ ] A tested recipe: USDA Complete Guide to Home Canning or nchfp.uga.edu
- [ ] For tomatoes: bottled lemon juice, 1 tablespoon per pint, 2 per quart
- [ ] For pickles: vinegar labeled 5% acidity and canning salt
- [ ] A kettle of boiling water and clean towels
- [ ] 1 battery carbon monoxide (CO) alarm in the kitchen while any flame burns

TOOLS

- [ ] Boiling water canner with a rack · or a stockpot deep enough for 1 to 2 inches of water over the jars, plus room to boil
- [ ] Jar lifter · or kitchen tongs with rubber bands wrapped on the tips
- [ ] Canning funnel and headspace ruler · or a clean ruler
- [ ] Steady heat: gas range, wood stove or a propane burner outdoors

4.2

PROJECT · CHAPTER 4 · KEEPING FOOD

PRESSURE CANNING: MEAT, BEANS AND LOW-ACID VEGETABLES, THE SAFE WAY

Time: about 3 hours a batch · Cost: $0 with your canner and jars · about $100 and up for a new canner · Steps and safety: skill 4.2 in the book

WHAT YOU NEED

- [ ] Pint or quart mason jars free of nicks, new flat lids and bands
- [ ] Green beans, carrots, dry beans or lean meat, prepared by a tested USDA recipe
- [ ] Dry beans only after soaking 12 to 18 hours and boiling 30 minutes: never raw
- [ ] Canning salt, 1 teaspoon per quart, if you like it
- [ ] Hot water for the canner, and a towel on the counter for cooling the jars
- [ ] A notebook to log the date, food, jar size, pressure and time of every batch
- [ ] 1 battery carbon monoxide (CO) alarm in the kitchen while any flame burns

TOOLS

- [ ] Pressure canner with a weighted or dial gauge · or none: a small pressure cooker is not a canner
- [ ] Jar lifter, canning funnel, headspace ruler · or rubber-banded tongs and a clean ruler
- [ ] Steady heat: gas range, wood stove or a propane burner outdoors

4.3

PROJECT · CHAPTER 4 · KEEPING FOOD

ROOT CELLAR STORAGE: CARROTS IN SAND, POTATOES, APPLES

Time: about 3 hours to set up, then 15 minutes a week · Cost: about $15 for sand and crates · $0 from what you have · Steps and safety: skill 4.3 in the book

WHAT YOU NEED

- [ ] Wooden boxes or crates, and clean, slightly damp sand
- [ ] Carrots, beets, potatoes and apples, unwashed and unbruised, the best of the harvest
- [ ] Straw, newspaper or burlap sacks
- [ ] 1 thermometer and 1 hygrometer (a humidity gauge, wind-up or dial type)
- [ ] Shallow pans of water for a dry floor
- [ ] Old newspaper to wrap apples one by one
- [ ] A notebook to log the temperature, the humidity and what you pulled out

TOOLS

- [ ] Soft brush · or dry hands and an old glove
- [ ] Garden fork · or a spade, used well back from the plants
- [ ] Wheelbarrow · or a bushel basket or a sturdy tote

PROJECT · CHAPTER 4 · KEEPING FOOD

4.4 DRYING APPLES AND OTHER FRUIT BY SUN, AIR AND STOVE

Time: about 1 hour of work, then 1 to 6 days of drying · Cost: about $5 for lemon juice and string · $0 from what you have · Steps and safety: skill 4.4 in the book

WHAT YOU NEED

- [ ] About 5 pounds (2.3 kg) of firm, ripe apples, or pears, peaches and apricots
- [ ] 1 cup bottled lemon juice and 1 cup water, for the dip
- [ ] Cotton string or clean wooden dowels, for hanging rings
- [ ] Glass jars with tight lids, and labels
- [ ] Sheet pans or oven racks, for stove drying
- [ ] 1 battery carbon monoxide (CO) alarm in the room when you dry by the stove

TOOLS

- [ ] Apple corer and paring knife · or a paring knife alone, cutting out the core in a circle
- [ ] Two window screens · or one screen covered with cheesecloth
- [ ] Oven thermometer
- [ ] Large bowl and a clean towel
- [ ] Large darning needle · or a straightened paper clip

PROJECT · CHAPTER 4 · KEEPING FOOD

4.5 SAUERKRAUT AND FERMENTED VEGETABLES IN A CROCK

Time: about 1 hour of work, then 3 to 6 weeks · Cost: about $8 for cabbage and salt · $0 for the crock if you have a bucket · Steps and safety: skill 4.5 in the book

WHAT YOU NEED

- [ ] 5 pounds (2.3 kg) firm, fresh cabbage, 1 to 2 days from the garden
- [ ] 3 tablespoons canning or pickling salt, with no iodine
- [ ] Brine for topping up: 1½ tablespoons canning salt per quart of water, boiled and cooled
- [ ] 2 heavy food-grade plastic bags, one inside the other, for the brine bag
- [ ] A clean towel to cover the crock
- [ ] Optional: 1 tablespoon caraway seed, or a few juniper berries

TOOLS

- [ ] 1-gallon stoneware crock · or a food-grade plastic bucket or a wide gallon glass jar
- [ ] Long knife or kraut board · or a sharp chef's knife and patience
- [ ] Kitchen scale · or a bathroom scale: weigh yourself with and without the cabbage
- [ ] Thermometer for the room
- [ ] Large bowl · or a clean dishpan

PROJECT · CHAPTER 4 · KEEPING FOOD

4.6 SALT-CURING BACON AND PORK

Time: about 1 hour of work, 5 to 7 days of curing, 3 hours of smoking · Cost: about $25 for a 5-pound pork belly · $5 for the salt and spices · Steps and safety: skill 4.6 in the book

WHAT YOU NEED

- [ ] 1 pork belly, skin off, about 5 pounds (2.3 kg)
- [ ] 5 tablespoons canning or kosher salt
- [ ] 5 tablespoons brown sugar
- [ ] 1 level teaspoon pink curing salt #1 (also sold as Prague Powder #1): 6.25% sodium nitrite, 93.75% salt
- [ ] 2 tablespoons coarse black pepper or paprika, if you like
- [ ] 1 food-safe 2-gallon zip bag, or a glass dish with a lid
- [ ] Hardwood for smoke, such as hickory, apple or oak
- [ ] Paper towels or a clean cloth for drying
- [ ] A notebook for the date, the weight and the cold-room readings

TOOLS

- [ ] Kitchen scale · or the weight printed on the meat label
- [ ] Measuring spoons, leveled with a knife
- [ ] Probe thermometer for the meat, and a second one for the cold room
- [ ] Smoker or barrel smokehouse (4.10) · or a wood-stove oven held at 225 to 250°F, battery CO alarm on

PROJECT · CHAPTER 4 · KEEPING FOOD

4.7 BAKE BREAD IN A DUTCH OVEN OR WOOD STOVE

Time: about 30 minutes of work, 13 to 20 hours of rising, 45 minutes of baking · Cost: about $1 a loaf · $0 for the pot if one hangs in your kitchen · Steps and safety: skill 4.7 in the book

WHAT YOU NEED

- [ ] 3 cups (400 g) all-purpose or bread flour
- [ ] 1½ teaspoons salt
- [ ] ¼ teaspoon instant or active dry yeast, or ½ cup active sourdough starter (see 4.17)
- [ ] 1⅓ cups (300 ml) cool water
- [ ] Extra flour or cornmeal for the cloth and the pot
- [ ] A clean cotton cloth or kitchen towel for the second rise
- [ ] 1 battery carbon monoxide (CO) alarm in the room when you bake on the wood stove

TOOLS

- [ ] Cast-iron Dutch oven, 5 to 6 quarts, with lid · or any heavy covered pot with no plastic parts
- [ ] Lid lifter and heavy leather gloves · or pliers and a thick folded towel
- [ ] Oven thermometer
- [ ] Instant-read thermometer · or a thump on the bottom: hollow means done
- [ ] Shovel for coals · or a fireplace shovel

PROJECT · CHAPTER 5 · FIX IT

5.1 MENDING CLOTHES: PATCHES, SEAMS, BUTTONS

Time: about 1 hour for a patch, a seam and a button · Cost: about $5 for needles, thread and a thimble · $0 from what you have · Steps and safety: skill 5.1 in the book

WHAT YOU NEED

- [ ] Hand-sewing needles in sizes 5 to 9, plus 1 heavier denim needle
- [ ] Cotton or polyester thread to match, and heavy thread for denim
- [ ] 1 patch of sturdy cloth, 1 inch (2.5 cm) bigger than the hole on every side
- [ ] Spare buttons the same size as the lost one
- [ ] Straight pins or safety pins
- [ ] Beeswax or a candle stub to wax the thread
- [ ] 1 old hardcover book to slip inside the leg

TOOLS

- [ ] Sharp fabric scissors · or a utility knife on a cutting board
- [ ] Thimble · or a scrap of leather wrapped around your fingertip
- [ ] Needle threader · or a fine wire bent into a narrow loop
- [ ] Seam ripper · or small pointed scissors
- [ ] Tailor's chalk · or a dry sliver of soap

PROJECT · CHAPTER 5 · FIX IT

5.2 SHARPEN AN AXE, A KNIFE AND A HOE WITH A FILE AND A STONE

Time: about 1 hour for all three tools · Cost: about $25 for a mill file and a combination stone · $0 if they hang in your garage · Steps and safety: skill 5.2 in the book

WHAT YOU NEED

- [ ] 1 mill bastard file, 10 inches (25 cm), with a handle
- [ ] 1 combination stone, coarse and fine, about 8 × 2 inches (20 × 5 cm)
- [ ] Water or light oil for the stone, as its maker says
- [ ] Steel wool or a wire brush, and a rag
- [ ] Light oil to finish
- [ ] 1 permanent marker
- [ ] 1 strip of leather or stiff cardboard for stropping
- [ ] Cardboard or leather blade guards for storage

TOOLS

- [ ] Bench vise · or two clamps, or a notched log with a wedge
- [ ] File guard · or a jar lid with a hole, pushed onto the file
- [ ] Leather work gloves and safety glasses
- [ ] Flashlight · or a bright window

PROJECT · CHAPTER 5 · FIX IT

5.3 FIX A LEAKY FAUCET AND A RUNNING TOILET

Time: about 2 hours for both · Cost: about $10 for washers and a flapper · $0 if the parts are in your drawer · Steps and safety: skill 5.3 in the book

WHAT YOU NEED

- [ ] Rubber washers and O-rings in assorted sizes, or the same part as the old one
- [ ] 1 toilet flapper that fits your flush valve, 2 or 3 inches (5 or 8 cm)
- [ ] Plumber's grease (silicone)
- [ ] White vinegar for mineral scale
- [ ] Food coloring
- [ ] Paper towels to check the joints for drips
- [ ] Small zip bags to keep the old parts for matching
- [ ] 1 new stem or cartridge, only if the old one is cracked
- [ ] 1 old towel and a small bowl for the screws

TOOLS

- [ ] Adjustable wrench · or slip-joint pliers with tape over the jaws
- [ ] Flat and Phillips screwdrivers
- [ ] Old toothbrush · or a rag
- [ ] Seat wrench, for faucets with removable seats
- [ ] Sponge and bucket · or an old towel
- [ ] Flashlight · or a headlamp

PROJECT · CHAPTER 5 · FIX IT

5.4 REPAIR A WOODEN CHAIR, GATE OR FENCE

Time: about 3 hours, plus a night for the glue · Cost: about $10 for glue and screws · $0 from what you have · Steps and safety: skill 5.4 in the book

WHAT YOU NEED

- [ ] Wood glue, or hide glue for an antique chair
- [ ] 1 board for the gate brace, as thick as the gate rails
- [ ] Exterior wood screws, 2½ inches (6 cm), about 12
- [ ] Paint or linseed oil for the bare ends of the brace
- [ ] 2 buckets of gravel and a few fist-size stones
- [ ] 6 feet (1.8 m) of cord or rope and a stout stick
- [ ] Rags, warm water and a few wooden toothpicks

TOOLS

- [ ] Rubber mallet · or a hammer over a block of wood
- [ ] Hand saw and chisel
- [ ] Brace and bit, or hand drill · or a nail and hammer for pilot holes in soft wood
- [ ] Screwdriver, sandpaper and a level · or a pan of water on a straight board for level
- [ ] Tamping bar · or the end of a 2×4
- [ ] Shovel

PROJECT · CHAPTER 5 · FIX IT

5.5 REPLACE A WINDOW PANE AND FIX A SCREEN

Time: about 2 hours a pane, plus drying time before paint · Cost: about $15 for glass, points and glazing compound · $0-$5 for a screen from what you have · Steps and safety: skill 5.5 in the book

WHAT YOU NEED

- [ ] 1 pane of glass, ⅛ inch (3 mm) smaller than the opening each way
- [ ] Glazing compound, 1 small can or tube
- [ ] About 12 glazier's points, the small metal tabs that hold the glass
- [ ] Masking tape
- [ ] Primer or linseed oil for the bare wood
- [ ] Screen mesh, 2 inches (5 cm) bigger than the frame on every side
- [ ] Spline, the rubber cord that locks the mesh in its groove

TOOLS

- [ ] Stiff and flexible putty knives · or an old dull table knife
- [ ] Pliers · or an old screwdriver to pry the points
- [ ] Spline roller · or a flat screwdriver, pressed gently
- [ ] Heavy gloves and safety glasses
- [ ] Tape measure, utility knife and a small brush · or a ruler and a sharp kitchen knife

PROJECT · CHAPTER 5 · FIX IT

5.6 SAWHORSE AND WORKBENCH FROM SCRAP

Time: about 4 hours for two sawhorses and a bench · Cost: about $30 in 2×4s and screws · $0-$5 from scrap · Steps and safety: skill 5.6 in the book

WHAT YOU NEED

- [ ] 2×4 lumber, about 40 feet (12 m) in all, or salvaged studs
- [ ] Wood screws, 3 inches (8 cm), about 40
- [ ] Wood screws, 2½ inches (6 cm), about 20
- [ ] 1 old solid door, or 2 layers of ¾-inch plywood, about 2 × 5 feet (60 × 150 cm)
- [ ] 4 short 2×4 scraps for cleats
- [ ] Sandpaper, medium grit
- [ ] Wood glue for the crosspieces
- [ ] 1 thin scrap for shims
- [ ] Paste wax or a candle stub for the bench top

TOOLS

- [ ] Crosscut hand saw · or a bow saw for rough cuts
- [ ] Brace and bit, or hand drill · or a nail to start screw holes in soft pine
- [ ] Screwdriver · or a brace with a screwdriver bit
- [ ] Speed square or framing square · or the corner of a hardcover book
- [ ] Tape measure, pencil and a level · or a pan of water on a straight board
- [ ] Clamp · or a helper's hands

PROJECT · CHAPTER 6 · HOME REMEDIES

6.1 THE HOME MEDICINE CHEST WITHOUT A PHARMACY

Time: about 2 hours to gather and sort · Cost: about $30-$60 for first-aid basics · much of the rest is already in your kitchen · Steps and safety: skill 6.1 in the book

WHAT YOU NEED

- [ ] 1 sturdy box or plastic tote with a latching lid, about 12 × 16 inches (30 × 40 cm)
- [ ] 4 zipper bags or small boxes, one for each layer
- [ ] First-aid layer: gauze pads, a roll of gauze, adhesive bandages, medical tape, disposable gloves
- [ ] Fine-tipped tweezers, small scissors, a sewing needle, a thermometer
- [ ] Kitchen layer: salt, sugar, baking soda, honey, a set of measuring spoons
- [ ] Petroleum jelly, aloe gel, unscented bar soap
- [ ] Herb layer: dried chamomile, peppermint and ginger in labeled jars
- [ ] Medicine layer: an extra week of each prescription, plus the pain, fever and allergy medicines you already use
- [ ] An index card, a pencil and a permanent marker
- [ ] A small notepad to log every dose given, with the time and the person's name
- [ ] Copies of each prescription and the pharmacy's phone number, in a zipper bag
- [ ] Oral rehydration packets, if you have them, beside the salt and sugar

TOOLS

- [ ] Masking tape and a permanent marker for labels · or paper labels written in pencil, taped over with clear tape
- [ ] Flashlight kept on top of the box · or a headlamp hung on the closet hook

6.2

PROJECT · CHAPTER 6 · HOME REMEDIES

CALENDULA AND PLANTAIN SALVE

Time: about 1 hour, plus 2 weeks to steep the oil · Cost: about $12 for oil and beeswax · $3-$5 from what you have · Steps and safety: skill 6.2 in the book

WHAT YOU NEED

- [ ] 1 cup (240 ml) dried calendula flowers
- [ ] ½ cup (120 ml) dried plantain leaves (Plantago major, the broad-leaf weed of most lawns)
- [ ] 1½ cups (360 ml) olive oil
- [ ] 1 oz (28 g) beeswax for each cup of strained oil, grated or in pellets
- [ ] 1 quart jar with a lid, and cheesecloth or an old cotton handkerchief
- [ ] 6 small tins or jars, 2 oz (60 ml) each, and labels
- [ ] A saucer kept cold on a windowsill or in a cool pantry, for the set test

TOOLS

- [ ] Double boiler · or a heatproof jar set in a pan of water on a folded rag
- [ ] Stove: gas, propane or wood, battery CO alarm on · or a camp stove, outdoors only (carbon monoxide)
- [ ] Kitchen scale (a dial scale works)
- [ ] Small pitcher with a spout for pouring · or a measuring cup with a lip
- [ ] Clean chopstick and paper towels · or a butter knife and a clean rag

6.3

PROJECT · CHAPTER 6 · HOME REMEDIES

DRY AND STORE MEDICINAL HERBS; INFUSIONS AND DECOCTIONS

Time: about 1 hour of work, plus 1 to 2 weeks of drying · Cost: $0 from the garden · about $5 for jars · Steps and safety: skill 6.3 in the book

WHAT YOU NEED

- [ ] Fresh herbs you can name with certainty, such as chamomile, peppermint, lemon balm, sage, thyme and calendula
- [ ] Cotton string
- [ ] Paper lunch bags
- [ ] A wide, shallow basket for carrying the cut stems
- [ ] Clean, dry glass jars with tight lids, dark glass if you have it
- [ ] Labels and a pencil

TOOLS

- [ ] Garden scissors or pruning shears · or a sharp kitchen knife
- [ ] Drying screen: an old window screen across two chairs · or a clean cotton sheet on a bed in a spare room
- [ ] Teapot, or a mug with a saucer for a lid · or a jar with its lid
- [ ] Small saucepan on a gas, propane or wood stove, battery CO alarm on · or a camp stove, outdoors only (carbon monoxide)
- [ ] Fine strainer · or a clean cotton handkerchief

7.1

PROJECT · CHAPTER 7 · CLEAN AND HEALTHY

HOMEMADE SOAP, COLD PROCESS

Time: about 2 hours, plus 4 to 6 weeks of drying · Cost: about $20 for lye and oil · about $5 with lard you rendered · Steps and safety: skill 7.1 in the book

WHAT YOU NEED

- [ ] 24 oz (680 g) lard (see 4.11)
- [ ] 8 oz (227 g) olive oil
- [ ] 4.16 oz (118 g) lye (sodium hydroxide), labeled 100% sodium hydroxide
- [ ] 9 oz (255 g) cold distilled water
- [ ] A mold of about 2 quarts (2 L), wood or sturdy cardboard, lined with freezer paper
- [ ] Old towels or a blanket
- [ ] A rack or slatted shelf for drying the bars
- [ ] A bucket of cold water and a clean cloth by the sink, for splashes

TOOLS

- [ ] Kitchen scale that reads in grams (a dial scale works)
- [ ] Stainless-steel pot, 4 quarts (4 L) · or an enamel pot with no chips; never aluminum
- [ ] Heavy plastic pitcher marked 5 (PP) for the lye water · or a stainless-steel bowl
- [ ] Long stainless or wooden spoon and a spatula, kept for soap only
- [ ] Two glass thermometers · or one, rinsed between uses
- [ ] Safety goggles, rubber gloves, long sleeves
- [ ] Stove: gas, propane or wood, battery CO alarm on · or a camp stove, outdoors only (carbon monoxide)
- [ ] Long knife or a wire cutter for the bars · or a clean putty knife

7.2

PROJECT · CHAPTER 7 · CLEAN AND HEALTHY

WASHBOARD LAUNDRY: WASH, WRING, DRY

Time: about 2 hours for a family load · Cost: about $30 for a washboard · $0 with a tub and bucket you own · Steps and safety: skill 7.2 in the book

WHAT YOU NEED

- [ ] Laundry soap, a bar or homemade powder (7.6)
- [ ] ½ cup (120 ml) washing soda for greasy work clothes
- [ ] Hot and cold water, about 10 gallons (38 L) for a load
- [ ] Clothesline, 40 feet (12 m), and 2 dozen clothespins
- [ ] A forked pole to prop up the middle of the line
- [ ] A bucket for soaking the dirtiest pieces, and a laundry basket
- [ ] An old pillowcase, tied shut, for socks and small things
- [ ] A soft scrub brush for stains and work-pant knees
- [ ] Rubber gloves

TOOLS

- [ ] Washboard · or rub the cloth against itself, fist to fist
- [ ] Two galvanized tubs, about 15 gallons (57 L) each · or a bathtub and a large bucket
- [ ] Stout stick or a long wooden spoon · or a broom handle, washed
- [ ] Big pot on a gas or wood stove for hot water, battery CO alarm on · or dark jugs of water warmed in the sun all morning
- [ ] Clothesline posts or two sturdy trees · or a line strung across a porch or a spare room

7.3

PROJECT · CHAPTER 7 · CLEAN AND HEALTHY

THE BUCKET TOILET AND COMPOSTING DONE SAFELY

Time: about 1 hour to set up · Cost: about $15 · $0 from what you have · Steps and safety: skill 7.3 in the book

WHAT YOU NEED

- [ ] 2 buckets, 5 gallons (19 L), with tight lids: one for urine, one for solids
- [ ] A toilet seat that fits a bucket
- [ ] Heavy-duty trash bags, 2 for each solids bucket, and twist ties
- [ ] Cover material: a big sack of sawdust, wood shavings, peat moss, shredded paper or dry leaves
- [ ] Toilet paper, soap, a jug of water, hand sanitizer with at least 60% alcohol
- [ ] A spray bottle of bleach solution, 5 tablespoons per gallon (7.16)
- [ ] Duct tape and a marker
- [ ] A small lidded can for pads and wipes, which never go in the compost
- [ ] For composting: a lidded bin about 3 × 3 feet (1 × 1 m), used for nothing else

TOOLS

- [ ] Scoop · or an old coffee can
- [ ] Pitchfork for the compost bin · or a shovel kept for this bin only
- [ ] Rubber gloves
- [ ] Hand-washing station by the door (1.21) · or a jug of water, a basin and soap

7.4

PROJECT · CHAPTER 7 · CLEAN AND HEALTHY

GRAY WATER: REUSE IT WITHOUT GETTING SICK

Time: about 15 minutes a day · Cost: $0 · Steps and safety: skill 7.4 in the book

WHAT YOU NEED

- [ ] 2 buckets, 5 gallons (19 L), with handles
- [ ] A watering can, 2 gallons (7.5 L) or larger
- [ ] Plain soap, with no bleach, borax or fabric softener in the wash
- [ ] Mulch, such as wood chips, straw or shredded leaves, about 2 wheelbarrow loads
- [ ] A marker to label the buckets GRAY WATER, so nobody drinks from them
- [ ] Clean water for the plants every few weeks, from a rain barrel (1.1) if you have one

TOOLS

- [ ] Dipper or saucepan to bail the tub · or a large mug
- [ ] Shovel to dig mulch basins · or a garden trowel
- [ ] Wheelbarrow for the mulch · or a tarp dragged by its corners
- [ ] Watering can with the sprinkler head taken off · or a bucket poured slowly at the base
- [ ] Rubber gloves

8.1

PROJECT · CHAPTER 8 · SAFE AT HOME

THE FIRST 24 HOURS OF A BLACKOUT, IN ORDER

Time: about 1 hour of work, spread over the first day · Cost: $0 with what you have on hand · Steps and safety: skill 8.1 in the book

WHAT YOU NEED

- [ ] 1 flashlight or headlamp for each person, with spare batteries
- [ ] 1 battery or hand-crank radio
- [ ] The House Book with the utility's number (8.2)
- [ ] Stored water, 1 gallon (3.8 L) per person per day (1.6)
- [ ] Masking tape and a marker
- [ ] 1 cooler and ice or frozen jugs
- [ ] 1 battery carbon monoxide alarm on each floor
- [ ] A charged battery pack for each phone
- [ ] A notebook and pencil for the outage log
- [ ] Wool blankets and warm layers for the night

TOOLS

8.2

PROJECT · CHAPTER 8 · SAFE AT HOME

THE FAMILY PLAN AND THE HOUSE BOOK

Time: about 2 hours for the first plan · 30 minutes to update it twice a year · Cost: about $8 for a binder and sheet protectors · $0 from what you have · Steps and safety: skill 8.2 in the book

WHAT YOU NEED

- [ ] 1 three-ring binder, 1 inch (2.5 cm), and 20 clear sheet protectors
- [ ] Lined paper, pencils and a highlighter
- [ ] 1 index card for each person, and a plastic sleeve or zip bag for each card
- [ ] A paper map of your town or county
- [ ] Copies of IDs, insurance cards and prescriptions
- [ ] Graph paper for the floor plan
- [ ] A list of every medicine each person takes, with the dose and the doctor's phone number
- [ ] A pencil case to keep in the binder pocket

TOOLS

- [ ] Three-hole punch · or sheet protectors, which come already punched
- [ ] Ruler · or the edge of a book

8.3

PROJECT · CHAPTER 8 · SAFE AT HOME

KEEP FOOD COLD WITHOUT POWER: COOLER, FREEZER RULES, WHAT TO EAT FIRST

Time: about 30 minutes, then a few checks a day · Cost: about $10 for two appliance thermometers · $0 from what you have · Steps and safety: skill 8.3 in the book

WHAT YOU NEED

- [ ] 1 refrigerator thermometer and 1 freezer thermometer, kept inside all year
- [ ] 1 or 2 coolers with tight lids
- [ ] Block ice, bagged ice or frozen jugs of water
- [ ] 1 food thermometer with a probe
- [ ] Masking tape and a marker
- [ ] Old blankets, towels or a sleeping bag to wrap the coolers
- [ ] Trash bags for anything you throw out
- [ ] A paper list of what is in the freezer, taped to its door

TOOLS

PROJECT · CHAPTER 9 · IN TOWN AND IN AN APARTMENT

9.1 BALCONY GARDEN IN BUCKETS WITH A RAIN CATCHER

Time: about 3 hours, then 10 minutes a day · Cost: about $45 for potting mix, plants and a tote · $10 from what you have · Steps and safety: skill 9.1 in the book

WHAT YOU NEED

- [ ] 4 food-grade buckets, 5 gallons (19 L) each, one plant per bucket
- [ ] 4 saucers or upturned bucket lids to catch drips
- [ ] About 3 cubic feet (85 L) of potting mix, not garden soil
- [ ] 4 tomato or pepper seedlings, or a mix of herbs
- [ ] 4 stakes, 5 feet (150 cm), and soft cloth ties
- [ ] 1 lidded storage tote, about 15 gallons (57 L), dark colored, for the rain
- [ ] 1 square of window screen and 1 bungee cord
- [ ] 1 old shower curtain or small tarp, about 4 × 6 feet (120 × 180 cm), and 4 cords

TOOLS

- [ ] Hand drill, ½-inch bit · or a large nail heated in a candle flame, held with pliers
- [ ] Utility knife · or a keyhole saw
- [ ] Watering can · or a milk jug with nail holes in the cap

PROJECT · CHAPTER 9 · IN TOWN AND IN AN APARTMENT

9.2 APARTMENT WATER: A MONTH IN CLOSETS, CAUGHT ON A BALCONY, FILTERED IN THE KITCHEN

Time: about 3 hours to set up, then 30 minutes twice a year · Cost: about $60 for four 7-gallon jugs · $0-$20 from what you have · Steps and safety: skill 9.2 in the book

WHAT YOU NEED

- [ ] 4 food-grade water jugs, 7 gallons (26 L) each, per person
- [ ] Cases of bottled water, within their dates
- [ ] 1 bathtub storage liner, if you have a tub
- [ ] The balcony rain tote (9.1)
- [ ] A two-bucket gravity filter (1.3)
- [ ] Unscented bleach and a medicine dropper
- [ ] Masking tape, a marker and a sheet of paper for the closet list
- [ ] 1 lidded bucket for carrying rain in from the balcony

TOOLS

- [ ] Hand truck for the full jugs · or slide them on a folded towel
- [ ] Jug spigot or siphon hose · or tip the jug onto a chair edge and pour

PROJECT · CHAPTER 9 · IN TOWN AND IN AN APARTMENT

9.3 COOK IN AN APARTMENT WITHOUT GAS OR POWER: BALCONY STOVE, ALCOHOL STOVE, CO RULES

Time: about 30 minutes a meal · Cost: about $15 for fuel and a stove · $0-$5 from what you have · Steps and safety: skill 9.3 in the book

WHAT YOU NEED

- [ ] Food that needs no heat for the first days: canned goods, bread, peanut butter, fruit
- [ ] 1 small alcohol stove (2.1 shows a can stove) and denatured alcohol in its can
- [ ] Canned chafing fuel, labeled for indoor use
- [ ] 1 pot with a lid, and a haybox or a box of blankets (2.5)
- [ ] 1 metal baking sheet, as a base
- [ ] 1 battery-powered CO alarm
- [ ] 1 pot lid and a bucket of sand, or a fire extinguisher

TOOLS

- [ ] Long fireplace matches · or a lighter with a long neck
- [ ] Windscreen of folded foil · or a ring cut from a coffee can

PROJECT · CHAPTER 9 · IN TOWN AND IN AN APARTMENT

9.4 KEEP WARM IN AN APARTMENT WITHOUT POWER

Time: about 2 hours to set up the warm room · Cost: $0 from what you have · Steps and safety: skill 9.4 in the book

WHAT YOU NEED

- [ ] Every blanket, quilt and sleeping bag in the place
- [ ] Towels or rolled rugs for the gaps under doors
- [ ] Bubble wrap, or spare blankets and tape, for the windows
- [ ] 1 small tent, or a table and 3 blankets to make one
- [ ] Foam pads, flattened cardboard or rugs for under the bedding
- [ ] Wool hats, socks and sweaters for everyone
- [ ] 2 hot water bottles, or metal bottles with tight caps
- [ ] 1 battery-powered CO alarm

TOOLS

- [ ] Duct tape · or thumbtacks or safety pins
- [ ] Kettle · or a pot with a lid

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9.5 THE APARTMENT BUCKET TOILET AND TRASH PLAN

Time: about 1 hour to set up · Cost: about $25 for buckets, bags and cover · $0-$5 from what you have · Steps and safety: skill 9.5 in the book

WHAT YOU NEED

- [ ] 2 buckets, 5 gallons (19 L), with tight lids
- [ ] 1 toilet seat made to fit a bucket, or a pool noodle split down its length
- [ ] 1 box of heavy-duty trash bags, 13 gallons or larger
- [ ] 1 bag of sawdust, cat litter or shredded paper, for cover
- [ ] 1 scoop or an old cup, kept in the cover bin
- [ ] 1 roll of toilet paper in a zip bag, to keep it dry
- [ ] Hand soap, a jug of water and a basin for hand washing
- [ ] Unscented bleach, rubber gloves and a rag
- [ ] 1 lidded trash can for the tied bags

TOOLS

- [ ] Utility knife · or sturdy scissors
- [ ] Marker · or a strip of tape on each lid

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9.6 A PANTRY IN A CLOSET: 30 DAYS OF FOOD IN A SMALL SPACE

Time: about 3 hours to set up, then 15 minutes a week · Cost: about $150-$250 for a month of food, added a little at a time · $0 for the shelves from what you have · Steps and safety: skill 9.6 in the book

WHAT YOU NEED

- [ ] 1 coat closet, cleared to the floor, away from the stove and the heater
- [ ] Shelves, or 6 to 8 sturdy wooden crates stacked on their sides
- [ ] 2 or 3 lidded buckets, 2 to 5 gallons, or wide jars, for rice, beans and oats
- [ ] Canned and dry foods from your menu list, in the amounts you counted
- [ ] Masking tape and a marker
- [ ] 2 manual can openers, one of them a spare
- [ ] Salt, cooking oil, spices, a pot, plates, and matches in a jar
- [ ] A sheet of paper and a pencil on a string for the inventory
- [ ] A step stool for reaching the top crate safely

TOOLS

- [ ] Screwdriver for the shelf brackets · or crates need no tools
- [ ] Tape measure · or a length of string knotted every foot