

Appendix IV: Supplies

Supplies per class of 24 students (6 groups of 4)

Items Available Daily	
6 rolls	adhesive tape
6 sets	colored pencils
1	computer (for playing videos)
1	document camera (optional for displaying notes or student work)
24	glue sticks
24	highlighters
6 sets	markers
24	pencils
24	scissors
1 set	speakers (for projecting audio during podcast videos)
12 pads	sticky notes
Other Items	
200 g	alum
1 roll	aluminum foil
1 box of 50	baggies, plastic, gallon, freezer-type
1 box of 50	baggies, plastic, quart, zipper-type (not slider-type), freezer-type
50	balloons, medium size, ~12 inch
12	bowls, Styrofoam® or plastic, small
	butcher paper (optional if chart paper is used)
1 head	cabbage, red (cooked to prepare indicator)
24	calculators, 4-function
1	candle (with holder)
1 large bag	candy (Red Hots®, M&M's®, Skittles®, or similar)
20 sheets	cardstock
2 pads	chart paper (or butcher paper)
1 can	Coca-Cola®
1	cold pack
1 pkg of 100	construction paper
6	containers: basins, tubs, or pans (can use variety)
2 pkg of 100	cotton balls
1 box of ~60	craft sticks
1 pkg of 50	cups, clear plastic, 4–6 oz
2 pkg of 50	cups, clear plastic, 8–12 oz
2–3	cups, Styrofoam®
~250 mL	detergent, dry laundry-type
~50 mL	detergent, dishwasher-type

24	dice
100 mL	dish soap, liquid-type
50	dropper pipettes, glass or plastic
6	dry erase boards, small (optional)
6	dry erase markers (optional)
24	filter paper or coffee filters
1 roll	fishing line
½ cup	flour
6	folders (optional)
100 mL	food coloring, red (or other dark color)
6	forks, plastic
500 mL	fruit juice, orange or lemon
1 box of 100	gloves, disposable, vinyl or polyethylene
6	glue gun, low temperature, and extra glue-gun glue sticks
6 bottles	glue, white school-type
2.5 L	gravel, or small aquarium rocks
1	hot pack
large bag	ice
2 pkg of 100	index cards, 3" x 5"
2 pkg of 100	index cards, 5" x 7" or 5" x 8" (or cardstock cut to 5" x 8")
2–3	ink pads (optional)
	internet access
50 mL	lemon juice
1	lighter, or matches
4	manila folders
6	markers, black, permanent
6	meter sticks
50 mL	milk
20 mL	mouthwash
20	napkins, or paper towels
	newspaper pages (several per group)
12	page protectors
1 ream of 500 sheets	paper, white, 8.5" x 11"
1 box	paper clips
3 rolls	paper towels
6	paper towel tubes (optional; can use white paper instead if needed)
24	pencils, No. 2
3 of each type	pens, black markers, Vis-à-Vis® (wet erase) markers, and permanent black markers
50 strips	pH paper (range of 2–14 or 0–14)
12	pipettes, large
~36	plastic toy animals, small, variety (optional; or use pictures provided in curriculum guide)
1 roll	plastic wrap (optional)

6	plates, plastic or aluminum
12–15	pushpins
2–3 m	rope
30	rubber bands, small
24	rulers
3 L	sand
1 3-lb can	shortening
2	Slinky® spring toys
6	sponges, dry (all one size and type)
6	spoons, plastic
200–300	stickers (for awards/prizes)
30	straws, plastic (not flexible straws) or stirring sticks
1 ball	string, cotton or nylon
1	Super Glue® (optional)
24	teaspoons
6	tablespoons
1 roll	tape, duct
2 rolls	tape, masking
2 rolls	tape, vinyl or strapping
~50 mL	vegetable oil
~30	weighing paper or wax paper squares, ~ 3" x 3"
4 L	water sample, "dirty" (made with dirt or mud)
2 L	water sample, "polluted" (made with dirty water, bits of grass and leaves, small amount of cooking oil, fruit peelings, egg shells, insoluble spices, food coloring, etc.)
1	world wall map
~100 mL	yeast, dry, powder

Science Lab Supplies and Chemicals

The following items will typically be available in the school science lab.

500 mL	ammonia solution, 5%
24	aprons, lab
500 g	baking soda
3–4	balances, triple-beam
6	beakers, 50 mL (or plastic cups)
12	beakers, 250 mL (or plastic cups)
18	beakers, 400 mL (or large plastic/paper cups)
1	beaker, 1,000 mL (to cook cabbage)
50 g	Borax powder
250 g	calcium chloride (or DampRid®, available at grocery or hardware stores)
1	diffraction grating (optional)
6	funnels
25	goggles, for lab safety (including 1 set for teacher)
12	graduated cylinders, 10 mL
8	graduated cylinders, 25 or 50 mL

6	graduated cylinders, 100 mL
2	heat lamps (optional)
1	hot plate
500 mL	hydrogen peroxide, 3%
1–2	mallets, rubber tuning fork
10 mL	sodium hydroxide (NaOH), 0.1 M solution
few mL	phenolphthalein indicator
60	test tubes
6	test tube racks (or use beakers or cans)
12	thermometers, glass or metal-backed
2	tuning forks, different frequencies
500 mL	vinegar, 5%
2 gallons	water, distilled
	water (from tap; used in various activities)

Items Provided by Teacher or Available in the Classroom

(marked with ★ in the curriculum)

1–3	ball, soft (or other soft items for tossing)
1–2	bicycle pump (or small air compressor)
6	bottles, 2-liter plastic (for <i>Water Purification</i> activity; supplied by teacher)
24	bottles, 2-liter plastic (for constructing bottle rockets; supplied by students)
12	cardboard pieces or clipboards (for <i>Droplet Race</i> activity)
at least 12	cell phones (brought by students)
	celebration supplies (for celebrating last day of program)
	cloth towels (for absorbing water during rocket launch)
at least 6	glass jars or tin cans, medium size
	items for <i>Insulation Design Challenge</i> (e.g., newspaper, aluminum foil, Styrofoam®, construction paper, cloth)
1	lab coat (optional for teacher)
1	LCD projector or flashlight (optional)
several	magazines (for students to cut out pictures)
1	music source
	materials for rocket construction (suggested: Styrofoam® pieces, poster board, cardboard, cardstock, duct tape, aluminum foil, modeling clay, Super Glue® or project glue, construction paper; and magazine pictures, stickers, or hand-drawn pictures for decoration)
1 bottle	nail polish, clear (for painting pennies in <i>Investigating the Properties of Water</i> activity)
6 sets	observation items, photos, or pictures (e.g., rocks, leaves, miniature vehicles; 5 per set)
~200	pennies
	rocket launcher (supplies and construction directions are listed in Appendix VI)
	snacks and drinks (optional; if allowed by school/district; for celebrating last day of program)
18	timing devices (e.g., timers, stopwatches, phone apps; can be provided by teacher or students)
1–2	trash bag