

Materials at a Glance

Experiment 1	Experiment 3	Experiment 4	Experiment 5	Experiment 6
colored pencils	small shovel or garden trowel	baseball or similar hard-centered ball	2 liters (8 cups) or more of dirt for mud pies	a toy, small music box, or toy car that can be taken apart
Experiment 2	small pail or plastic container	balloon	1.75 liters (7 cups) or more of water	a second similar item that can be taken apart
measuring cup	dirt that contains rocks (.25 liter [1 cup])	piece of string to tie balloon closed	15 milliliters (1 Tbsp.) baking soda	screwdriver
plastic hammer	1 tall clear glass container (approx. size: .5 liter [2 cups])	colored pencils	15 milliliters (1 Tbsp.) vinegar	small hammer
regular metal hammer	flour (60 ml [1/4 cup])	Optional	measuring cup	other tools as needed
3 pieces of banana	water	funnel	measuring spoon	
3 hardboiled eggs in the shell	cake mix and items needed to make the cake		3 containers (about 1.75 liter [7 cups] size)	
3 raw potato halves	nuts, gumdrops, chocolate chips, and/or M&Ms		spoon	
3 rocks of the same type and size (students can collect these)			garden trowel	
safety glasses			bucket	
Optional			paper marking pen	
8 pieces of paper			pencil	
marking pen			colored pencils	

Experiment 7	Experiment 8	Experiment 9	Experiment 10	Experiment 12
2 clear, tall glasses (drinking or parfait glasses)	outdoor thermometer	3 Styrofoam cups: 355 ml (12 oz.) size	pencil	seeds (student selected)
spoon (1 or more)	helium-filled balloon	about 240 ml (1 cup) each:*	colored pencils	a garden bed or containers and potting soil
3-6 student-chosen food items for parfait model of Earth's layers (such as: graham crackers, peanut brittle, cookies, hot fudge, Jell-O, pudding, ice cream, cream cheese, cherry, nut, jelly bean, etc.)	string	sand	Experiment 11	tools for tending plants
student-chosen inedible items that can be used to build a parfait model of Earth's layers (such as: rocks, mud, dirt, clay, dog or cat food, Legos, etc.)		pebbles	2 bar magnets (narrow magnets work best)	herb seeds or small herb plants (student selected)
colored pencils		small rocks	small, flat-bottomed, clear plastic box (big enough for 2 magnets to fit underneath with some space around them)	
		3 containers for collecting sand, pebbles, and small rocks	corn syrup	
		garden trowel or small shovel	iron filings, about 5 ml (1 teaspoon)**	
		pencil	Optional	
		1-2 measuring cups	tape	
		water	2 plastic bags for collecting iron filings	
		enough dirt, pebbles, rocks, water, etc. to make a mud city		
		Optional		
		stopwatch or clock with second hand		

* Student-collected or purchased from a place that sells aquarium supplies

** See *Experiment* section for how students can collect iron filings — or iron filings may be purchased at www.hometrainingtools.com

Materials: Quantities Needed for All Experiments

Equipment	Materials	Foods
baseball or similar hard-centered ball box, small, flat-bottomed, clear plastic (big enough for 2 magnets to fit underneath with some space around them) bucket containers (about 1.75 liter [7 cups size), 3 containers for collecting sand, pebbles, and small rocks, 3 garden bed, or containers and potting soil garden trowel glass container, clear, tall (approx. size: .5 liter [2 cups]) glasses (drinking or parfait glasses), clear, tall, 2 hammer, metal hammer, plastic hammer, small magnets, bar, 2 (narrow magnets work best) measuring cup, 1-2 measuring spoons pail, small, or plastic container safety glasses screwdriver shovel, small, or garden trowel spoon thermometer, outdoor tools, misc. as needed tools for tending plants toy, small music box, or toy car that can be taken apart, 2 Optional bags, plastic, for collecting iron filings, 2 funnel stopwatch or clock with second hand	balloon balloon, helium-filled cups, Styrofoam, 355 ml (12 oz.) size, 3 dirt for mud pies, 2 liters (8 cups) or more dirt that contains rocks (.25 liter [1 cup]) dirt, pebbles, rocks, water, etc. to make a mud city inedible items, student-chosen, that can be used to build a parfait model of Earth's layers (such as: rocks, mud, dirt, clay, dog or cat food, Legos, etc.) iron filings, about 5 ml (1 teaspoon) [see <i>Experiment</i> section for how students can collect iron filings. Or iron filings may be purchased: www.hometrainingtools.com] paper pebbles, about 240 ml (1 cup)* pen, marking pencil pencils, colored rocks, 3 of the same type and size (students can collect these) rocks, small, about 240 ml (1 cup)* sand, about 240 ml (1 cup)* seeds (student selected) seeds, herb, or small herb plants (student selected) string water Optional paper, 8 pieces pen, marking tape	baking soda, 15 milliliters (1 Tbsp.) banana, 3 pieces cake mix and items needed to make the cake corn syrup eggs, hardboiled in the shell, 3 flour (60 ml [1/4 cup]) food items, student-chosen, such as: graham crackers, peanut brittle, cookies, hot fudge, Jell-O, pudding, ice cream, cream cheese, cherry, nut, jelly bean, etc. foods, assorted, such as nuts, gumdrops, chocolate chips, and/or M&Ms potato halves, raw, 3 vinegar, 15 milliliters (1 Tbsp.)

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