

# Level 4 Module 3 Materials

## Earth Systems

The lists below summarize the materials necessary to implement the Level 4 Module 3 curriculum. The lists compile items from the Materials Tables for each lesson set but separate items available for purchase in *PhD Science*® kits from those items the schools provide. The suggested quantities are for a class of 24 students and up to 6 groups of students.

Schools that purchase kits receive materials in the Kit Items list. Schools may also purchase refill kit items, identified by ♻️, for subsequent years of implementation. Schools that do not purchase kits must provide those materials in addition to the materials in the School Supplied list. School supplied items are commonly available in classrooms or in stores. In addition to the listed materials, teachers may need access to such items as sunlight, electricity, uncarpeted areas, and sturdy level surfaces (tables or desks).

To learn more about the resources for this module as well as other components of *PhD Science*®, visit [greatminds.org/texas](http://greatminds.org/texas).

## Earth Systems

Kit Items		School Supplied Items	
<input type="checkbox"/> Balloon pumps, handheld	6	<input type="checkbox"/> Aluminum foil	2 rolls
<input type="checkbox"/> Beaker, glass, 250 mL	1	<input type="checkbox"/> Aprons, laboratory	24
<input type="checkbox"/> Bins, clear plastic, 6 qt	14	<input type="checkbox"/> Bags, resealable plastic, 1 qt	4
<input type="checkbox"/> Bucket, plastic, 10 qt	1	<input type="checkbox"/> Bottles, clear plastic, 16.9 oz	26
<input type="checkbox"/> Chenille stems	50 ♻️	<input type="checkbox"/> Cardboard, 7" × 7"	6
<input type="checkbox"/> Clay		<input type="checkbox"/> Chart paper	23 sheets
<input type="checkbox"/> Modeling, nonhardening	5 lb ♻️	<input type="checkbox"/> Construction paper	8 sheets
<input type="checkbox"/> Powdered, natural	400 g ♻️	<input type="checkbox"/> Container or bag, clear (for rice)	1
<input type="checkbox"/> Filters, coffee	24 ♻️	<input type="checkbox"/> Containers, cardboard (optional)	6–12
<input type="checkbox"/> Food coloring, blue	1 oz ♻️	<input type="checkbox"/> Cotton swabs	72
<input type="checkbox"/> Gloves, disposable (optional)	48 pairs	<input type="checkbox"/> Craft sticks	50
<input type="checkbox"/> Heat lamps	2		
<input type="checkbox"/> Jars with lids, clear plastic, 8 oz	4		
<input type="checkbox"/> Measuring cup, 1 L	1		

<input type="checkbox"/> Pipettes, disposable	7 ☉	<input type="checkbox"/> Cups	
<input type="checkbox"/> Plastic sheets, 5.5" × 7.5"	6	○ Clear plastic, 9 oz	31
<input type="checkbox"/> Pony beads, blue, green, red	192 each color	○ Paper, 3 oz	50
<input type="checkbox"/> Rubber stoppers, size #00	6	<input type="checkbox"/> Drill with $\frac{3}{8}$ " bit	1
<input type="checkbox"/> Silt	400 g ☉	<input type="checkbox"/> Forks, plastic	2
<input type="checkbox"/> Spray bottles, plastic	6	<input type="checkbox"/> Gloves, protective (for teacher)	1 pair
<input type="checkbox"/> Watch glasses	2	<input type="checkbox"/> Gravel	2 cups
<b>Items Required from Other Level 4 Kits</b>		<input type="checkbox"/> Ice cubes	24
<b>Module 1</b>		<input type="checkbox"/> Knife, utility (optional)	1
<input type="checkbox"/> Beaker, glass, 250 mL	1	<input type="checkbox"/> Marbles	$\frac{2}{3}$ cup
<input type="checkbox"/> Cooling pad	1	<input type="checkbox"/> Objects for weight, small	20
<input type="checkbox"/> Heat lamps	2	<input type="checkbox"/> Paper clips	172
<input type="checkbox"/> Hot plate	1	<input type="checkbox"/> Pencils, at least 5 colors	24 sets
<input type="checkbox"/> Safety goggles, student	24	<input type="checkbox"/> Plastic wrap	1 roll
<input type="checkbox"/> Safety goggles, teacher	1	<input type="checkbox"/> Plates, paper	12
<input type="checkbox"/> Scales, digital, ± 0.1 g	6	<input type="checkbox"/> Popcorn kernels	$\frac{2}{3}$ cup
<input type="checkbox"/> Stopwatches	6	<input type="checkbox"/> Push pins	6
<input type="checkbox"/> Tongs	1	<input type="checkbox"/> Rice, uncooked, white	1.2 kg
<b>Module 2</b>		<input type="checkbox"/> Rocks, approx. 2" long	6
<input type="checkbox"/> Graduated cylinders, 50 mL	6	<input type="checkbox"/> Rulers, metric	6
<input type="checkbox"/> Magnifiers, handheld, plastic	6	<input type="checkbox"/> Salt	236 g
<input type="checkbox"/> Measuring spoon, tbs	1	<input type="checkbox"/> Sand	10 kg
<input type="checkbox"/> Timer, digital	1	<input type="checkbox"/> Soil, potting or locally sourced	42 cups
		<input type="checkbox"/> Scissors	24
		<input type="checkbox"/> Sponge, small	1
		<input type="checkbox"/> Spoons, plastic	32
		<input type="checkbox"/> Sticky notes	112
		<input type="checkbox"/> Straws, bendable	51
		<input type="checkbox"/> String	1 spool
		<input type="checkbox"/> Sugar, granulated white	$\frac{2}{3}$ cup
		<input type="checkbox"/> Tape	
		○ Duct	1 roll
		○ Electrical	2 rolls
		○ Masking	2 rolls
		<input type="checkbox"/> Toothpicks	250
		<input type="checkbox"/> Water	Access
		<input type="checkbox"/> Whiteboard, teacher's (optional)	1

<b>Optional Rain Shadow Model Extension</b>	
<input type="checkbox"/> Bin, clear plastic, 41 qt	1
<input type="checkbox"/> Humidifier	1
<input type="checkbox"/> Knife, utility	1
<input type="checkbox"/> Paper towels	1 roll
<input type="checkbox"/> Paper towel tube (optional)	1
<input type="checkbox"/> Plastic wrap	1 roll
<input type="checkbox"/> Soil, potting or locally sourced	20 lb
<input type="checkbox"/> Tape, masking	1 roll
<input type="checkbox"/> Water	Access