

# Materials kit list





Amplify.



THE LAWRENCE  
HALL OF SCIENCE  
UNIVERSITY OF CALIFORNIA, BERKELEY

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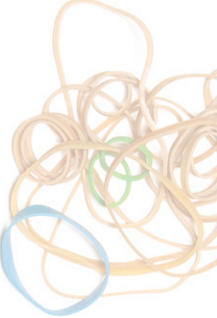
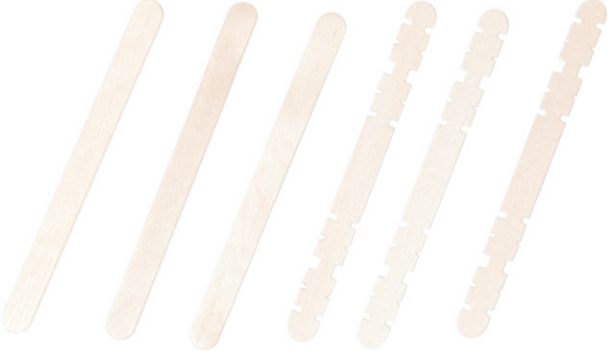
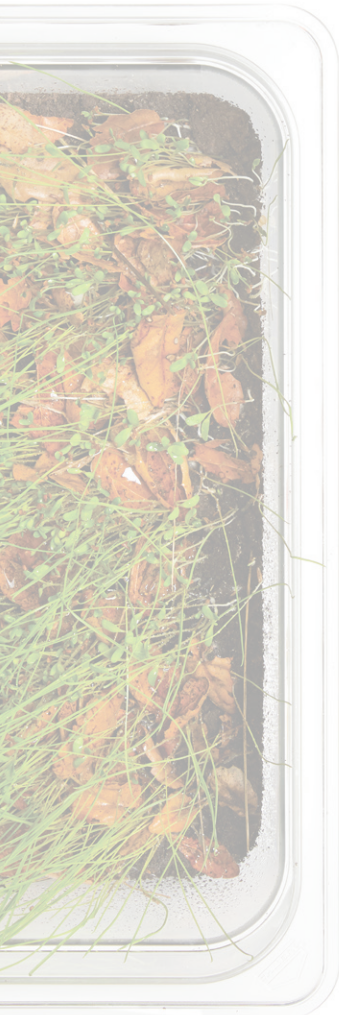
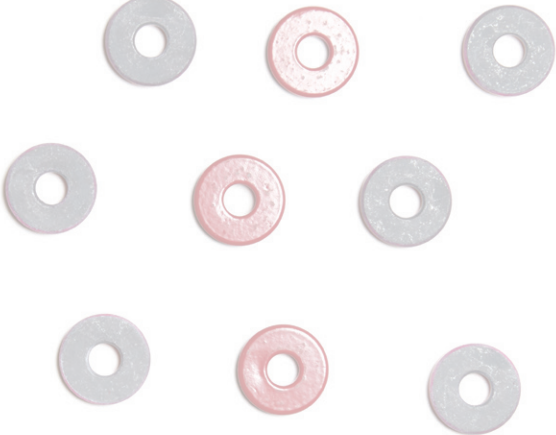
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The quantity of manipulative items provided in a kit may exceed the quantity required for certain activities.



# Starter Kit



### Hands-on materials

Quantity	Description
12	sticky notes, 3" x 3", pad
24	hand lenses, plastic
10	masking tape, rolls
40	goggles, safety
20	trays, plastic
2	dish tubs

# Needs of Plants and Animals



Materials in this unit are packaged in 3 boxes.

### Hands-on materials

Quantity	Description
216	sticky notes, electric blue, 3" x 3"
72	sticky notes, black, 3" x 3"
4	trays, potting, plastic
250	cups, plastic, 9 oz
50	cups, plastic, 2 oz
216	elf sunflower seeds
1	grow light bulb
4	spray bottles
432	radish seeds
1	light timer
1	clamp lamp

### Classroom materials

Quantity	Description
1	<i>Investigating Monarchs</i> , Big Book (24 pages/book)
1	<i>A Plant in the Desert</i> , Big Book (20 pages/book)
1	<i>Handbook of Plants</i> , Big Book (36 pages/book)
1	<i>Above and Below</i> , Big Book (20 pages/book)
1	<i>Science Walk</i> , Big Book (20 pages/book)
2	Habitat Pictures: Forest and Field of Weeds
3 sets	Animals and their Foods cards (9 cards/set)
18 sets	Living Things Student cards (11 cards/set)
18 sets	Human Needs Student cards (12 cards/set)
6	Explanation Language Frame cards: set 1
5	Explanation Language Frame cards: set 2
2	Explanation Language Frame cards: set 3
2	Explanation Language Frame cards: set 4
4	Explanation Language Frame cards: set 5



**Student materials**

18 sets	Water in Habitat cards (4 cards/set)
19 sets	Mariposa Grove cards (2 cards/set)
16	Living/Nonliving Things cards
9	Animals Eating Station cards
6	Monarch Habitats chart cards
8	Animal Habitat Table cards
17	Food Sorting cards
12	Human Needs cards
2	Section headers: Key Concepts, Vocabulary
4	Chapter Questions cards
1	Unit Question card
11	Vocabulary cards

Quantity	Description
1	<i>Needs of Plants and Animals: Milkweed and Monarchs Investigation Notebook</i> (24 pages/book)
18	<i>Investigating Monarchs</i> (24 pages/book)
18	<i>A Plant in the Desert</i> (20 pages/book)
18	<i>Handbook of Plants</i> (36 pages/book)
18	<i>Above and Below</i> (20 pages/book)
18	<i>Science Walk</i> (20 pages/book)

# Pushes and Pulls



Materials in this unit are packaged in **3** boxes.

### Hands-on materials

Quantity	Description
73	cardboard boxes, 11" x 17" x 2", with slots
200	wooden sticks (tongue depressors)
1	cardboard box, 12" x 24" x 2"
93	baggies, plastic with zip
160	rubber bands (medium)
81	rubber bands (large)
24	rubber bands (small)
73	balls, table-tennis
73	binder clips, large
2	masking tape, rolls
1	peg board, 1' x 2'
18	nuts, large, metal
16	dowels, 2" long
1	ball, foam, 6"
18	marbles, flat
19	tennis balls
73	shoelaces

### Classroom materials

Quantity	Description
1	<i>Room 4 Solves a Problem</i> , Big Book (28 pages/book)
1	<i>A Busy Day in Pushville</i> , Big Book (20 pages/book)
1	<i>Talking About Forces</i> , Big Book (20 pages/book)
1	<i>Building with Forces</i> , Big Book (20 pages/book)
1	<i>Forces in Ball Games</i> , Big Book (52 pages/book)
9	Pinball Machine Design Goals chart: Diagrams 1-9
5	What We Know About Forces chart: Icons 1-6
7	Explanation Language Frames cards: set 1
4	Explanation Language Frames cards: set 2
8	Explanation Language Frames cards: set 3
2	Explanation Language Frames cards: set 4
4	Explanation Language Frames cards: set 5





**Student materials**

18 sets	Forces cards set: Headers (2 cards/set)
18 sets	Forces cards: small (8 cards/set)
73	Box Model mat 1: Long/Short
73	Box Model mat 2: left/right
73	Box Model mat 3: targets
8	Forces cards: large
2	Section headers: Key Concepts, Vocabulary
6	Chapter Questions cards
1	Unit Question card
9	Vocabulary cards

Quantity	Description
1	<i>Pushes and Pulls: Designing a Pinball Machine Investigation Notebook</i> (28 pages/book)
18	<i>A Busy Day in Pushville</i> (20 pages/book)
18	<i>Room 4 Solves a Problem</i> (28 pages/book)
18	<i>Talking About Forces</i> (20 pages/book)
18	<i>Forces in Ball Games</i> (52 pages/book)
18	<i>Building with Forces</i> (20 pages/book)

# Sunlight and Weather



Materials in this unit are packaged in 2 boxes.

### Hands-on materials

Quantity	Description
8	vials with lids, plastic, 18 ml
36	rubber sheets, black, 3" x 6"
36	rubber sheets, white, 3" x 6"
18	thermometers, liquid crystal
2	clay, soft plasticine, 16 oz
9	light bulbs, 60 watt
1	glue, super, bottles
130	cups, plastic, 9 oz
2	gravel, cups
4	caps, bottle
9	clamp lamps
37	cups, paper

### Classroom materials

Quantity	Description
1	<i>Tornado! Predicting Severe Weather</i> , Big Book (24 pages/book)
1	<i>What Is the Weather Like Today?</i> , Big Book (28 pages/book)
1	<i>Getting Warm in the Sunlight</i> , Big Book (20 pages/book)
1	<i>Cool People in Hot Places</i> , Big Book (24 pages/book)
1	<i>Handbook of Models</i> , Big Book (40 pages/book)
38	Playground Weather calendars and graphs Illustration cards
2	Nighttime and Daytime Illustration cards
4	Explanation Language Frame cards: set 1
4	Explanation Language Frame cards: set 2
4	Explanation Language Frame cards: set 3
2	Playground and Temperature Data images
2	Think and Walk Severe Weather cards



**Student materials**

2	Think and Walk Temperature cards
3	Warming Over Time Graph labels
6	Colored Surfaces Graph labels
5	Think and Walk Weather cards
18	thermometer color strips
5	Types of Weather icons
2	Warming Graph labels
1	Sunlight Game card
3	Time of Day cards
2	Section headers: Key Concepts, Vocabulary
5	Chapter Questions cards
1	Unit Question card
10	Vocabulary cards

Quantity	Description
1	<i>Sunlight and Weather: Solving Playground Problems Investigation Notebook</i> (28 pages/book)
18	<i>Tornado! Predicting Severe Weather</i> (24 pages/book)
18	<i>What Is the Weather Like Today?</i> (28 pages/book)
18	<i>Getting Warm in the Sunlight</i> (20 pages/book)
18	<i>Cool People in Hot Places</i> (24 pages/book)
18	<i>Handbook of Models</i> (40 pages/book)

# Animal and Plant Defenses



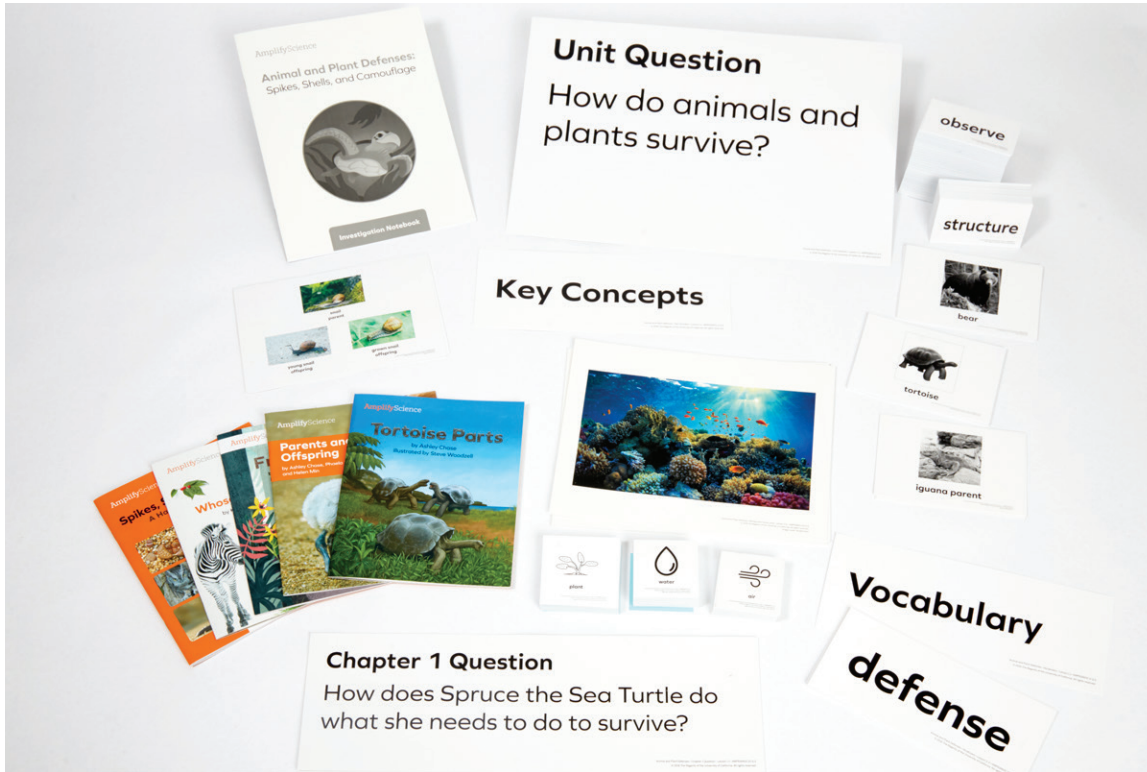
Materials in this unit are packaged in **1** box.

### Hands-on materials

Quantity	Description
72	game tokens, plastic, 1¼" diameter disc
40	tissue paper, sheets, various colors
37	cups, plastic, 16 oz
36	rings, binder, metal
150	cups, plastic, 2 oz
19	hair combs, plastic
73	cups, paper, 7 oz.
800	toothpicks, wooden
144	pencil-top erasers
2	clay, 16 oz

### Classroom materials

Quantity	Description
1	<i>Spikes, Spines, and Shells: A Handbook of Defenses</i> , Big Book (52 pages/book)
1	<i>Parents and Offspring</i> , Big Book (28 pages/book)
1	<i>Whose Lunch Is This?</i> , Big Book (24 pages/book)
1	<i>Tortoise Parts</i> , Big Book (24 pages/book)
1	<i>Frog Models</i> , Big Book (24 pages/book)
1 set	Structure-Function Language Frames cards: set 1 (11 cards/set)
1 set	Structure-Function Language Frames cards: set 2 (6 cards/set)
1 set	Explanation Language Frames cards (4 cards/set)
18 sets	Parent and Offspring card set (5 cards/set)



**Student materials**

9 set	Survival Game Need cards (12 cards/set)
9 set	Survival Game Role cards (4 cards/set)
1 set	Background Scene cards (9 cards/set)
36 sets	Word Ring cards (9 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards
1 set	Unit Question

Quantity	Description
1	<i>Animal and Plant Defenses: Spikes, Shells, and Camouflage</i> Investigation Notebook (24 pages/book)
18	<i>Spikes, Spines, and Shells: A Handbook of Defenses</i> (52 pages/book)
18	<i>Parents and Offspring</i> (28 pages/book)
18	<i>Whose Lunch Is This?</i> (24 pages/book)
18	<i>Tortoise Parts</i> (24 pages/book)
18	<i>Frog Models</i> (24 pages/book)

# Light and Sound

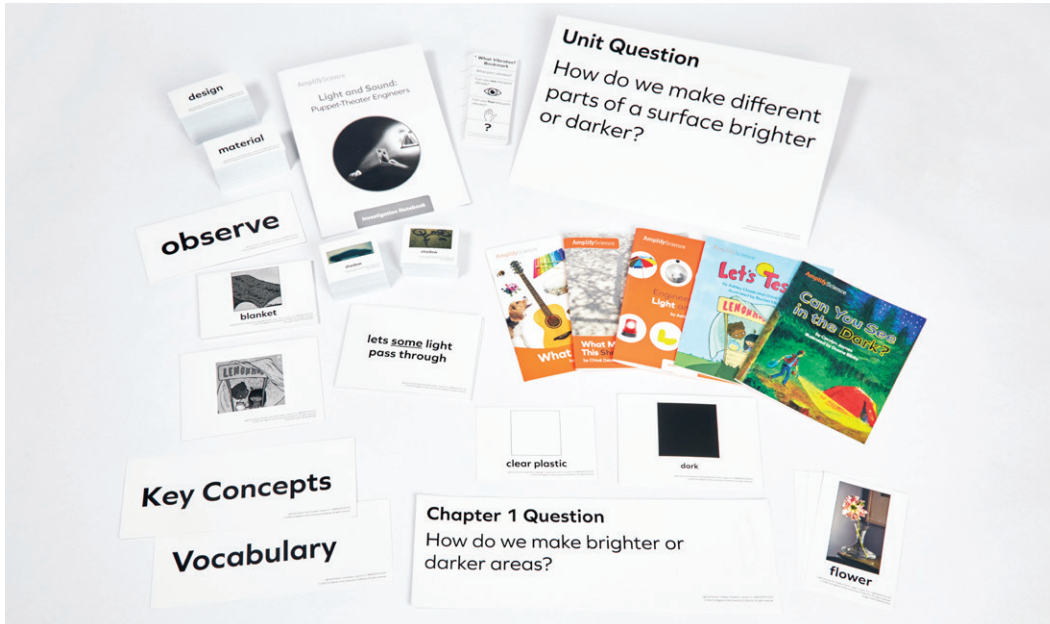


Materials in this unit are packaged in 2 boxes.

### Hands-on materials

Quantity	Description
4	lighting filters, sheets (representing tinted plastic)
22	cardstocks, blue, sheets (representing cardboard)
5	sticks, wooden (tongue depressors)
19	cardstocks, white, sheets
1	rubber bands, super size
72	envelopes, large manila
37	clips, binder, medium
19	clips, binder, large
36	rings, binder, metal
20	rubber bands, medium
19	cups, plastic, 9 oz
5	containers, plastic
8	cups, plastic, 2 oz

19	flashlights, small
2	flashlight, large
147	envelopes, small
50	acetate, sheets
73	crayons, silver
1	wax paper, roll
73	crayons, black
24	batteries, AA
73	crayons, gray
22	foam, sheets
1	foil, roll
1	string, 9 feet



**Classroom materials**

Quantity	Description
1	Engineering with Light and Sound, Big Book (44 pages/book)
1	Can You See in the Dark?, Big Book (28 pages/book)
1	What Made This Shadow?, Big Book (28 pages/book)
1	What Vibrates?, Big Book (28 pages/book)
1	Let's Test!, Big Book (20 pages/book)
1	Explanation Language Frames cards: set 1 (7 cards/set)
1	Explanation Language Frames cards: set 2 (3 cards/set)
1	Explanation Language Frames cards: set 3 (3 cards/set)
1	Explanation Language Frames cards: set 4 (4 cards/set)
1	Explanation Language Frames cards: set 5 (3 cards/set)
1 set	Results: Testing materials cards (8 cards/set)
1 set	Results: Let's Test! cards (6 cards/set)
1 set	Materials chart cards (15 cards/set)
18 sets	What Vibrates? bookmark (1 card/set)
18 sets	Shadow cards: small (12 cards/set)

1 set	Shadow cards: large (3 cards/set)
18 sets	Let's Test! Bookmark (1 card/set)
36 sets	Word Ring cards (8 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (8 cards/set)
1 set	Unit Question (1 card/set)

**Student materials**

Quantity	Description
1	Light and Sound: Puppet-Theater Engineers Investigation Notebook (36 pages/book)
18	Engineering with Light and Sound (44 pages/book)
18	Can You See in the Dark? (28 pages/book)
18	What Made This Shadow? (28 pages/book)
18	What Vibrates? (28 pages/book)
18	Let's Test! (20 pages/book)

# Spinning Earth



Materials in this unit are packaged in 2 boxes.

### Hands-on materials

Quantity	Description
50	stickers, round, removable, yellow, 3/4 inch
50	stickers, round, removable, purple, 3/4 inch
50	stickers, round, removable, orange, 3/4 inch
50	stickers, round, removable, green, 3/4 inch
50	stickers, round, removable, pink, 3/4 inch
50	stickers, round, removable, red, 3/4 inch
280	stickers, round, light blue, 1/2 inch
2	paper, light blue, sheet (36" x 60")
75	stickers, round, yellow, 1/2 inch
280	stickers, round, black, 1/2 inch

2	paper, black, sheet (36" x 24")
12	baking cup, paper, white
36	rings, binder, metal
19	globes, inflatable
1	stress ball, globe
2	magnets, ring
1	pump, hand





**Classroom materials**

Quantity	Description
1	<i>Patterns of Earth and Space</i> (40 pages/book)
1	<i>A Walk Through the Seasons</i> (28 pages/book)
1	<i>Nighttime Investigation</i> (24 pages/book)
1	<i>After Sunset</i> (24 pages/book)
1	<i>What Spins?</i> (28 pages/book)
1 set	Interpretation Language Frame cards: Lesson 1.4 (8 cards/set)
1 set	Explanation Language Frame cards: Lesson 4.3 (6 cards/set)
1 set	Sky Observation cards (large) (10 cards/set)
1 set	Sun and Stars cards (2 cards/set)
36 sets	Word Ring cards (10 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (5 cards/set)
1 set	Vocabulary cards (10 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Spinning Earth: Investigating Patterns in the Sky Investigation Notebook</i> (32 Pages / Book)
18	<i>Patterns of Earth and Space</i> (40 pages/book)
18	<i>A Walk Through the Seasons</i> (28 pages/book)
18	<i>Nighttime Investigation</i> (24 pages/book)
18	<i>After Sunset</i> (24 pages/book)
18	<i>What Spins?</i> (28 pages/book)

# Plant and Animal Relationships



Materials in this unit are packaged in 2 boxes.

### Hands-on materials

Quantity	Description
25	baggies, plastic with zip
36	soil, nutrient rich, cups
18	probability cubes (dice)
6	cups, plastic, 16 oz
60	seeds, elf sunflower
18	cups, plastic, 3 oz
9	plastic containers
24	play clay, purple
36	seeds, sweet corn
16	play clay, green
16	play clay, blue
12	play clay, pink
100	seeds, marigold
100	seeds, alfalfa
80	beans, kidney
100	seeds, radish
9	tape measures
1	string, ball
72	cotton balls
300	beans, mung
100	seeds, beet
36	beans, lima
1	flashlight
1	fan, small
6	spoons
25	acorns
5	tongs



**Classroom materials**

Quantity	Description
18 sets	Bengal Tiger Reserve Sample Study site map (2015) (18 cards/set)
1 set	Concept Mapping cards: set 1 (large) (5 cards/set)
1 set	Concept Mapping cards: set 2 (large) (4 cards/set)
1 set	Concept Mapping cards: set 3 (large) (4 cards/set)
9 sets	Plant Parts cards (8 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards / set)
1 set	Chapter Questions
1 set	Vocabulary cards
1	Unit Question card
1 set	Key Concepts

**Student materials**

Quantity	Description
1	<i>Plant and Animal Relationships: Investigating Systems in a Bengali Forest Investigation Notebook</i> (84 pages/book)
18	<i>Handbook of Habitats</i> (52 pages/book)
18	<i>A Plant Is a System</i> (20 pages/book)
18	<i>Investigating Seeds</i> (28 pages/book)
18	<i>My Nature Notebook</i> (20 pages/book)
18	<i>Habitat Scientist</i> (24 pages/book)

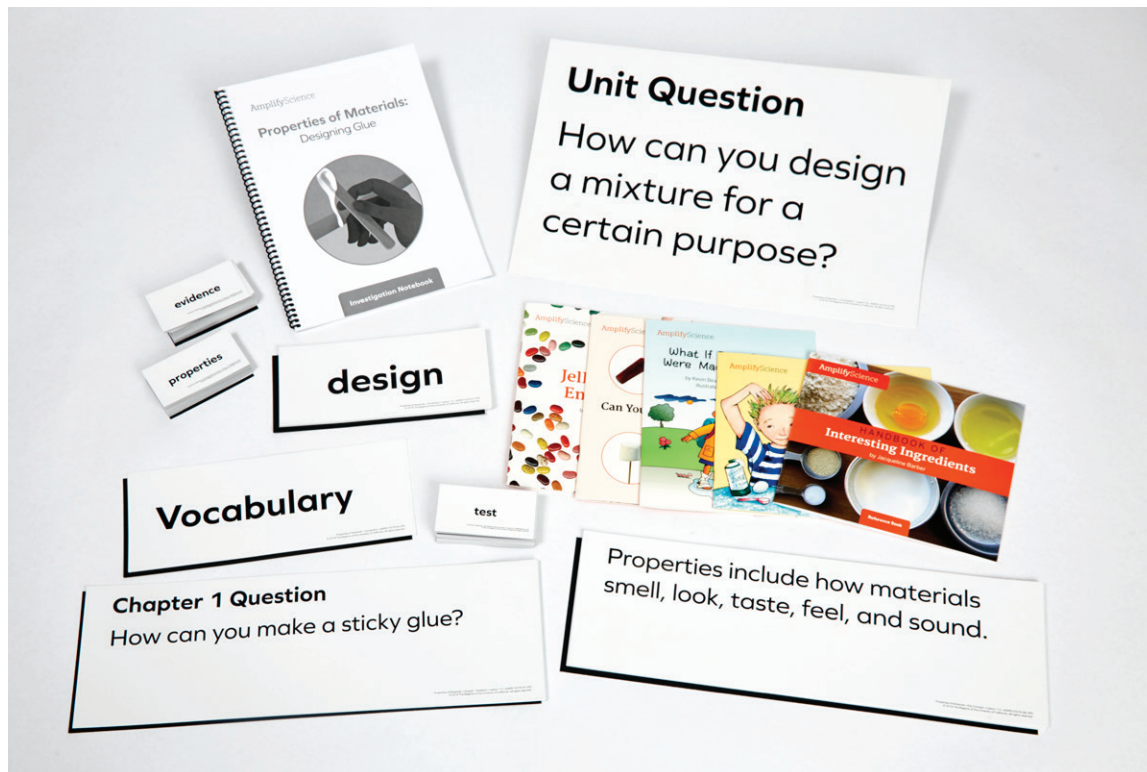
# Properties of Materials



Materials in this unit are packaged in 3 boxes.

### Hands-on materials

Quantity	Description
18	labels, pre-printed, cornstarch + water (not heated)
18	labels, pre-printed, cornstarch + water (heated)
18	labels, pre-printed, gelatin + water
18	labels, pre-printed, flour + water
18	labels, pre-printed, baking soda
18	labels, pre-printed, cornstarch
18	labels, pre-printed, corn syrup
332	index cards, unlined, 4" x 6"
550	sticks, craft, wooden, small
550	sticks, craft, wooden, large
18	labels, pre-printed, Glue A
18	labels, pre-printed, Glue B
1	cinnamon powder, container
18	labels, pre-printed, flour
60	baggies, plastic with zip
18	labels, pre-printed, salt
8	baking soda, containers
8	cornstarch, containers
6	gelatin powder, boxes
1	beans, kidney, pound
8	corn syrup, bottles
2	salt, kosher, boxes
200	cups, plastic, 9 oz
344	cups, paper, 3 oz
46	spoons, plastic
225	washers, metal
200	lids, plastic



**Classroom materials**

Quantity	Description
18 sets	Word Relationships cards: set 1 (2 cards/set)
18 sets	Word Relationships cards: set 2 (3 cards/set)
18 sets	Word Relationships cards: set 3 (3 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (13 cards/set)
1 set	Key Concepts (13 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Properties of Materials: Designing Glue</i> Investigation Notebook (88 pages/book)
18	<i>What If Rain Boots Were Made of Paper?</i> (20 pages/book)
18	<i>Handbook of Interesting Ingredients</i> (40 pages/book)
18	<i>Can You Change It Back?</i> (28 pages/book)
18	<i>Jelly Bean Engineer</i> (40 pages/book)
18	<i>Jess Makes Hair Gel</i> (24 pages/book)

# Changing Landforms

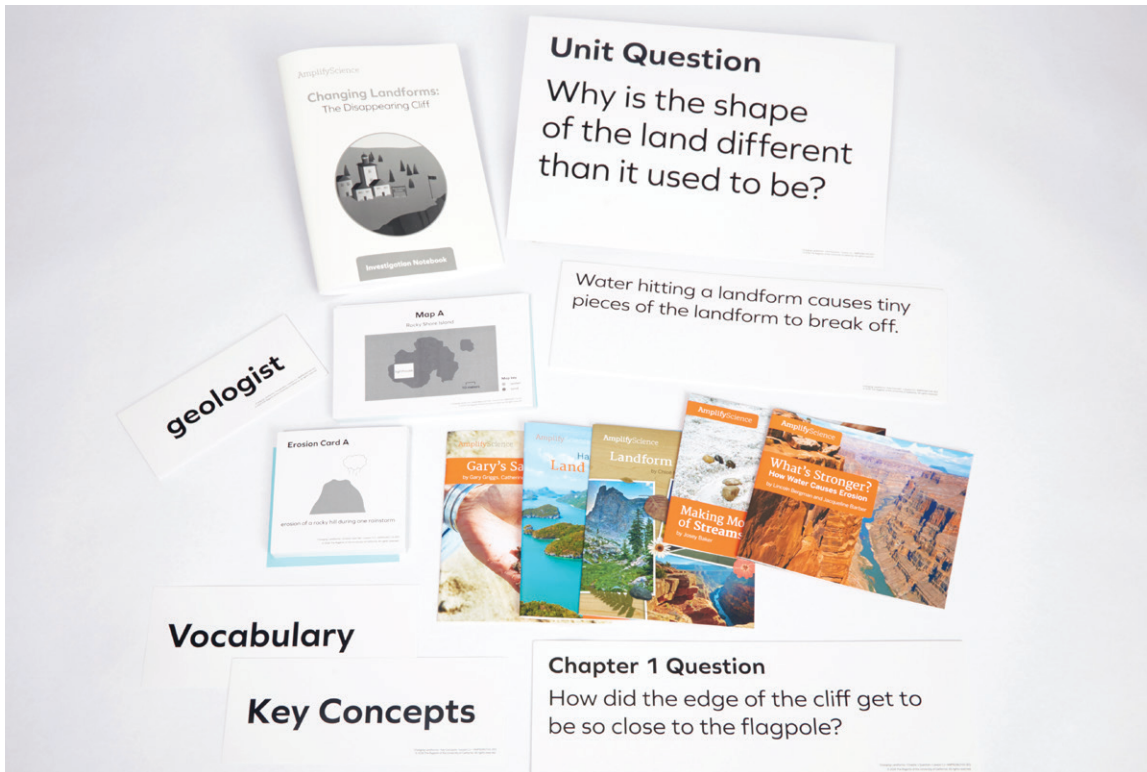


Materials in this unit are packaged in 2 boxes.

### Hands-on materials

Quantity	Description
2	sand, rounded large (pebbles), multicolor, cups
18	containers, plastic, clear, with lids
3	sand, fine playground, tan, cups
1	lid, for clear plastic jar
72	baggies, plastic with zip
2	sand, jagged, black, cups
2	sand, kinetic, tan, boxes
2	sand, jagged, tan, cups

4	chalk, white, blocks
74	index cards, 4" x 6"
1	jar, clear plastic
500	pom-poms, black
9	bottles, spray
18	rocks, pumice
16	hard candies



**Classroom materials**

Quantity	Description
18 sets	Island Maps cards (4 cards/set)
12 sets	Erosion cards (8 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (11 cards/set)
1 set	Key Concepts (10 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Changing Landforms: The Disappearing Cliff Investigation Notebook</i> (92 pages/book)
18	<i>What's Stronger? How Water Causes Erosion</i> (24 pages/book)
18	<i>Handbook of Land and Water</i> (52 pages/book)
18	<i>Making Models of Streams</i> (20 pages/book)
18	<i>Gary's Sand Journal</i> (28 pages/book)
18	<i>Landform Postcards</i> (28 pages/book)

# Balancing Forces



Materials in this unit are packaged in **1** box.

### Hands-on materials

Quantity	Description
18	cardboard tubes (toilet-paper rolls), 4" long, halved
20	clothespins, wood, with wire hinges,
38	magnets, ring, north pole painted red
20	bags, plastic, quart, self-sealing
10	fasteners (brads), brass plated
10	fasteners (brads), solid brass
38	hooks, with pointed screw tips
18	cardboard, pieces, 3.5" x 2"
18	cardboard, pieces, 7" x 3.5"
1	string, cotton, white, ball
1	wire, magnet, copper, roll
18	cardboard, pieces, 2" x 2"
50	baggies, plastic with zip
1	sandpaper, small piece
19	balloons, medium size
18	balls, rubber, small
18	cups, plastic, 16 oz
108	index cards, 4" x 6"
15	wooden craft sticks
1	aluminum foil, roll
19	dominoes, plastic
10	steel wool pads
1	battery holder
38	blocks, wooden
10	washers, metal
10	spoons, steel
18	magnets, ball
2	batteries, D
200	paper clips
1	bolt, iron
20	twist ties





**Classroom materials**

Quantity	Description
18 sets	Word Relationships cards: set 1 (8 cards/set)
18 sets	Word Relationships cards: set 2 (3 cards/set)
18 sets	Word Relationships cards: set 3 (3 cards/set)
18 sets	Word Relationships cards: set 4 (3 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (5 cards/set)
1 set	Vocabulary cards (12 cards/set)
1 set	Key Concepts (10 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Balancing Forces: Investigating Floating Trains</i> Investigation Notebook (88 pages/book)
18	<i>What My Sister Taught Me About Magnets</i> (28 pages/book)
18	<i>Explaining a Bridge</i> (20 pages/book)
18	<i>Handbook of Forces</i> (36 pages/book)
18	<i>Forces All Around</i> (24 pages/book)
18	<i>Hoverboard</i> (20 pages/book)

# Inheritance and Traits



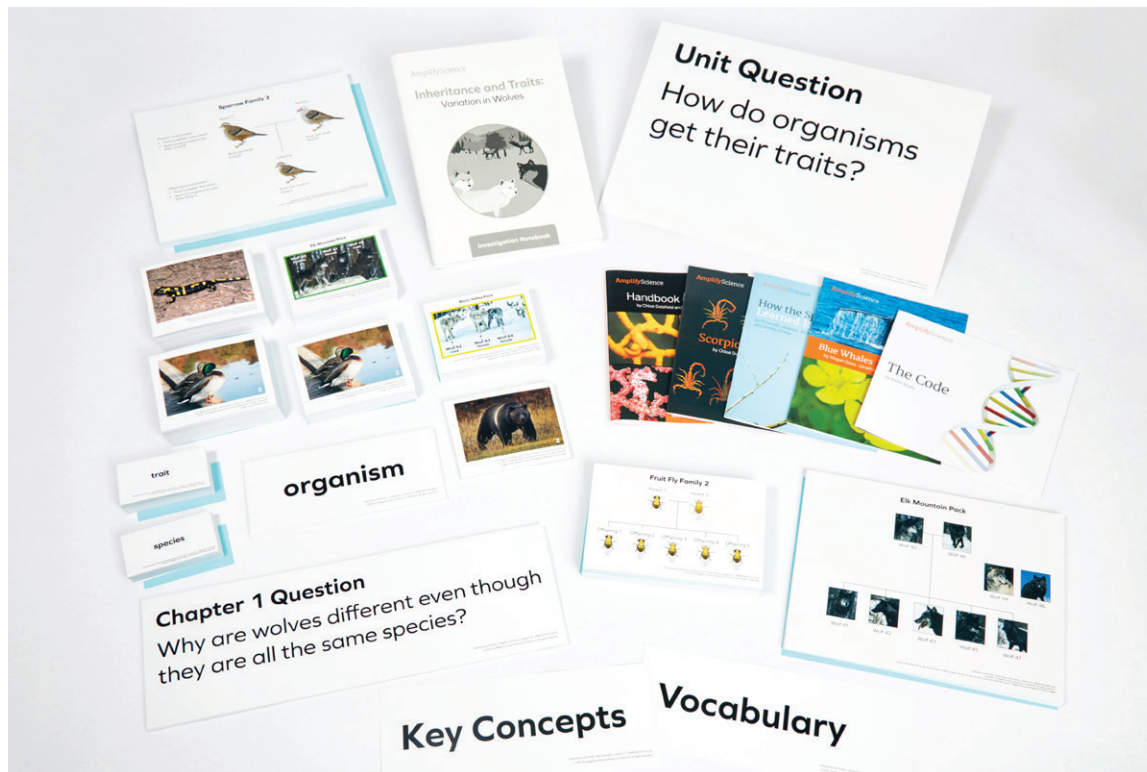
Materials in this unit are packaged in **1** box.

### Hands-on materials

Quantity	Description
18	food coloring, red, bottles
324	stickers, round, blue
30	cups, plastic 16 oz.
324	stickers, round, red
18	food coloring sets
48	clay, yellow
48	clay, green
48	clay, red

### Classroom materials

Quantity	Description
9 sets	Word Relationships cards: set 2 (6 cards/set)
9 sets	Word Relationships cards: set 3 (4 cards/set)
9 sets	Word Relationship cards: set 1 (4 cards/set)
9 sets	Elk Mountain Pack Data cards (6 cards/set)
9 sets	Bison Valley Pack Data cards (6 cards/set)
9 sets	Fruit Fly Family Data cards (4 cards/set)
9 sets	Flamingo Family Data cards (4 cards/set)
9 sets	Sparrow Family Data cards (3 cards/set)

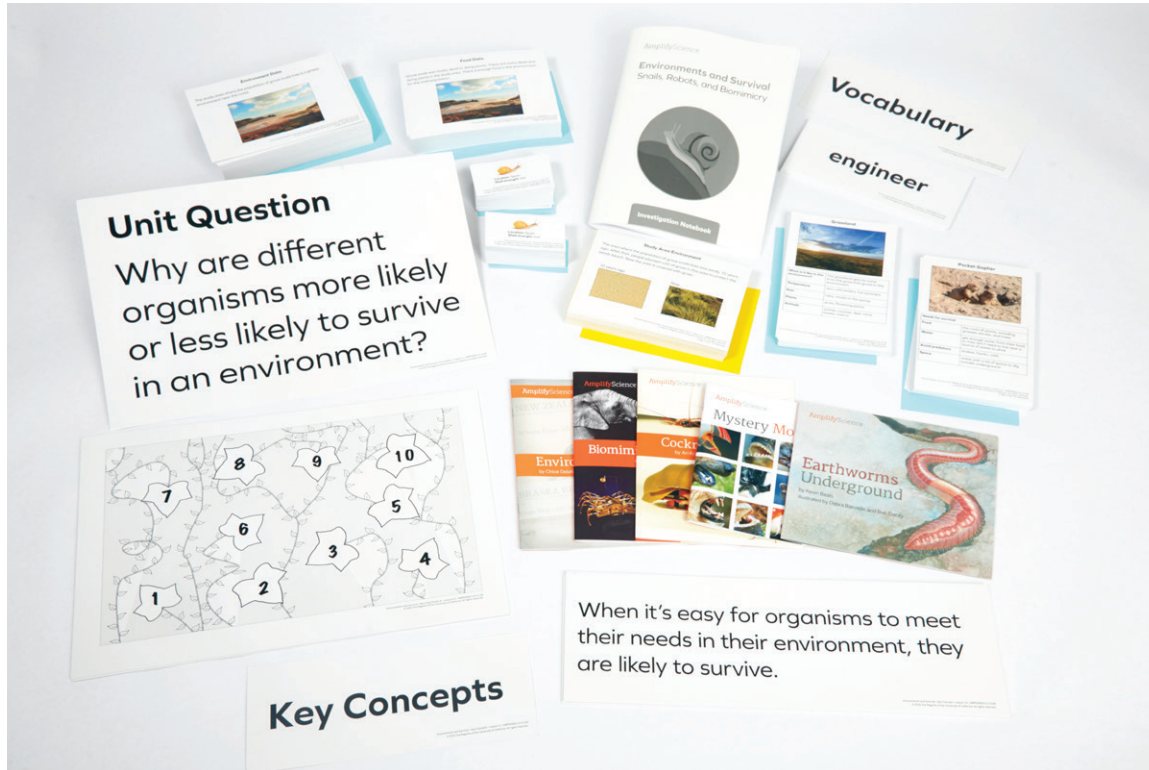


**Student materials**

9 sets	Wolf Family Data cards (2 cards/set)
9 sets	Animal cards (10 cards/set)
1 set	Bear cards (20 cards/set)
18 sets	Bird cards (8 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (14 cards/set)
1 set	Key Concepts (10 cards/set)
1	Unit Question card

Quantity	Description
1	<i>Inheritance and Traits: Variation in Wolves Investigation Notebook</i> (104 pages/book)
18	<i>How the Sparrow Learned Its Song</i> (24 pages/book)
18	<i>Blue Whales and Buttercups</i> (28 pages/book)
18	<i>Scorpion Scientist</i> (28 pages/book)
18	<i>Handbook of Traits</i> (52 pages/book)
18	<i>The Code</i> (24 pages/book)





**Classroom materials**

Quantity	Description
9 sets	Needs for Survival Environment cards (4 cards/set)
9 sets	Needs for Survival Organism cards (4 cards/set)
18 sets	Grove Snail Data cards: set 1 (4 cards/set)
18 sets	Grove Snail Data cards: set 2 (6 cards/set)
18 sets	Grove Snail Data cards: set (3 cards/set)
2 sets	Neck Test posters (6 sheets/set)
18 sets	Grove Snail cards (9 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (19 cards/set)
1 set	Key Concepts (9 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Environments and Survival: Snails, Robots, and Biomimicry Investigation Notebook</i> (88 pages/book)
18	<i>Earthworms Underground</i> (28 pages/book)
18	<i>Biomimicry Handbook</i> (44 pages/book)
18	<i>Environment News</i> (24 pages/book)
18	<i>Cockroach Robots</i> (24 pages/book)
18	<i>Mystery Mouths</i> (28 pages/book)

# Weather and Climate

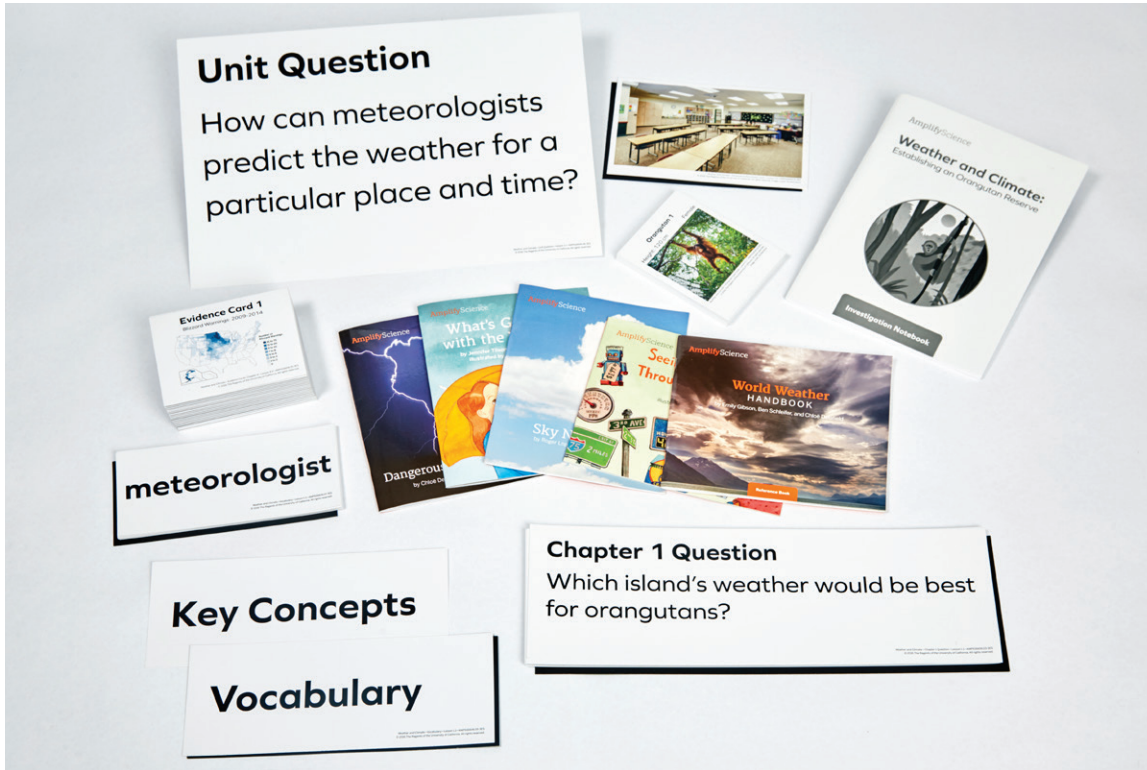


Materials in this unit are packaged in 2 boxes.

### Hands-on materials

Quantity	Description
1	thermometer, indoor/outdoor, jumbo, wall mount
9	containers, plastic, clear, rectangular
150	sticky notes, yellow, 3" x 3"
90	cubes, plastic, interlocking
36	sticky notes, green, 3" x 3"
36	index cards, blank, 4" x 6"
500	sticky notes, pink, 3" x 3"
288	straws, plastic, unwrapped
50	baggies, plastic with zip
720	tokens, plastic, yellow

9	cups, plastic, 1/2 oz
9	cups, plastic, 16 oz
320	wooden craft sticks
72	cups, plastic, 9 oz
27	thermometers, small
1	rain gauge
2	screws



**Classroom materials**

Quantity	Description
18 sets	Evidence cards: Chapter 4 (7 cards/set)
1 set	Temperature chart cards (4 cards/set)
1 set	Orangutan Data cards (36 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (17 cards/set)
1 set	Key Concepts (9 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Weather and Climate: Establishing an Orangutan Reserve Investigation Notebook</i> (84 pages/book)
18	<i>What's Going On with the Weather?</i> (24 pages/book)
18	<i>Seeing the World Through Numbers</i> (28 pages/book)
18	<i>Dangerous Weather Ahead</i> (28 pages/book)
18	<i>World Weather Handbook</i> (52 pages/book)
18	<i>Sky Notebook</i> (28 pages/book)

# Energy Conversions



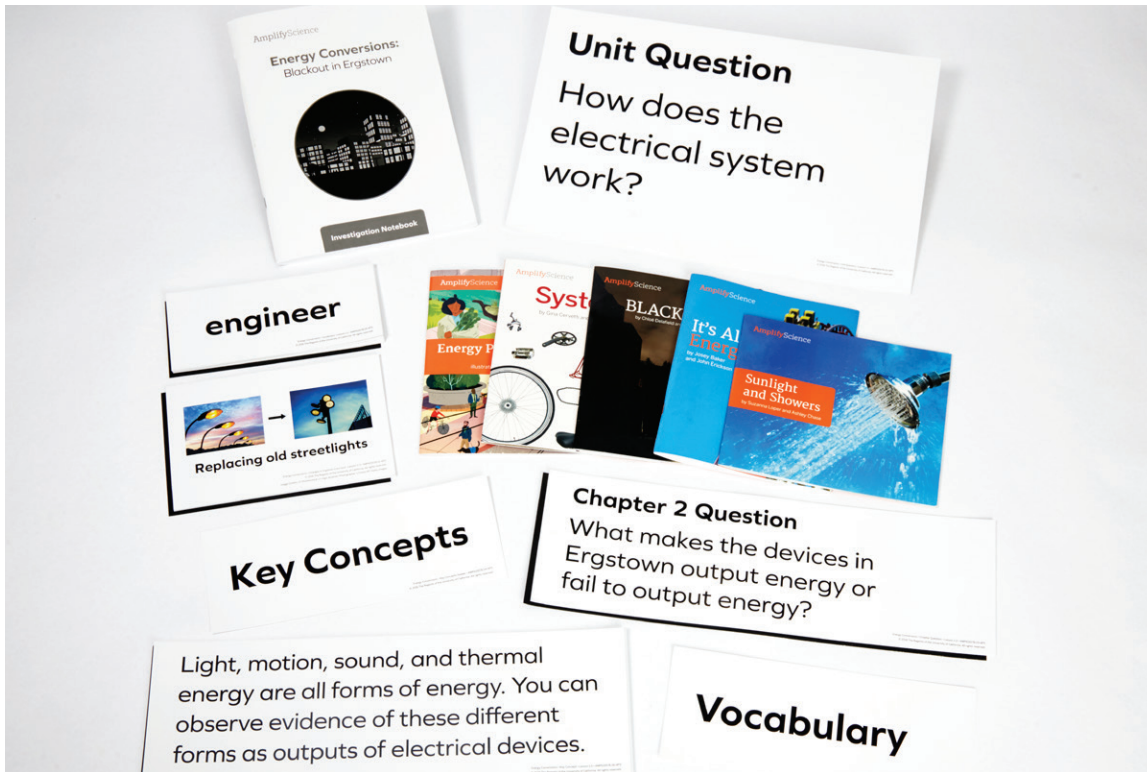
Materials in this unit are packaged in **1** box.

### Hands-on materials

Quantity	Description
1	light bulb, incandescent, 60 watt
18	fan blades, plastic, small
15	baggies, plastic with zip
18	wires, with clip leads
125	plates, paper, small
400	wooden craft sticks
1	wire, two-conductor
100	cups, plastic, 2 oz
1	cherry pitter

9	LEDs, bicolor
9	solar panels
1	wire cutter
1	clamp lamp
9	buzzers
18	motors





**Classroom materials**

Quantity	Description
1 set	Changes in Ergstown card (400 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (18 cards/set)
1 set	Key Concepts (9 cards/set)
1 set	Unit Question

**Student materials**

Quantity	Description
1	<i>Energy Conversions: Blackout in Ergstown</i> Investigation Notebook (100 pages/book)
18	<i>Energy Past and Present</i> (24 pages/book)
18	<i>Sunlight and Showers</i> (24 pages/book)
18	<i>It's All Energy</i> (52 pages/book)
18	<i>Blackout!</i> (24 pages/book)
18	<i>Systems</i> (28 pages/book)

# Vision and Light



Materials in this unit are packaged in 3 boxes.

### Hands-on materials

Quantity	Description
72	bags, plastic with zip, quart-size
2	lids, plastic for 16 oz container
180	hook-and-loop strips, 3/4" wide
25	bags, plastic with zip, large
2	containers, plastic, 16 oz.
720	hook-and-loop dots, beige
1	garlic powder, container
9	faux fur, 3"x3" pieces
65	cups, plastic, 9 oz
9	binder clips, large
9	masking tape, rolls

9	bags, small muslin
36	balls, small pink
9	probability cubes
720	pom-poms, yellow
36	cardboard boxes
2	cinnamon sticks
36	canisters, film
72	pipe cleaners
2	yarn, skeins



**Classroom materials**

Quantity	Description
18 sets	Explanation cards: set 1 (3 cards/set)
18 sets	Explanation cards: set 2 (5 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (5 cards/set)
1 set	Vocabulary cards (19 cards/set)
1 set	Key Concepts (10 cards/set)
1 set	Unit Question

**Student materials**

Quantity	Description
1	<i>Vision and Light: Investigating Animal Eyes Investigation Notebook</i> (108 pages/book)
18	<i>Seeing Like a Shrimp and Smelling Like a Snake</i> (28 pages/book)
18	<i>Investigating Animal Senses</i> (28 pages/book)
18	<i>Handbook of Animal Eyes</i> (52 pages/book)
18	<i>I See What You Mean</i> (28 pages/book)
18	<i>Crow Scientist</i> (20 pages/book)

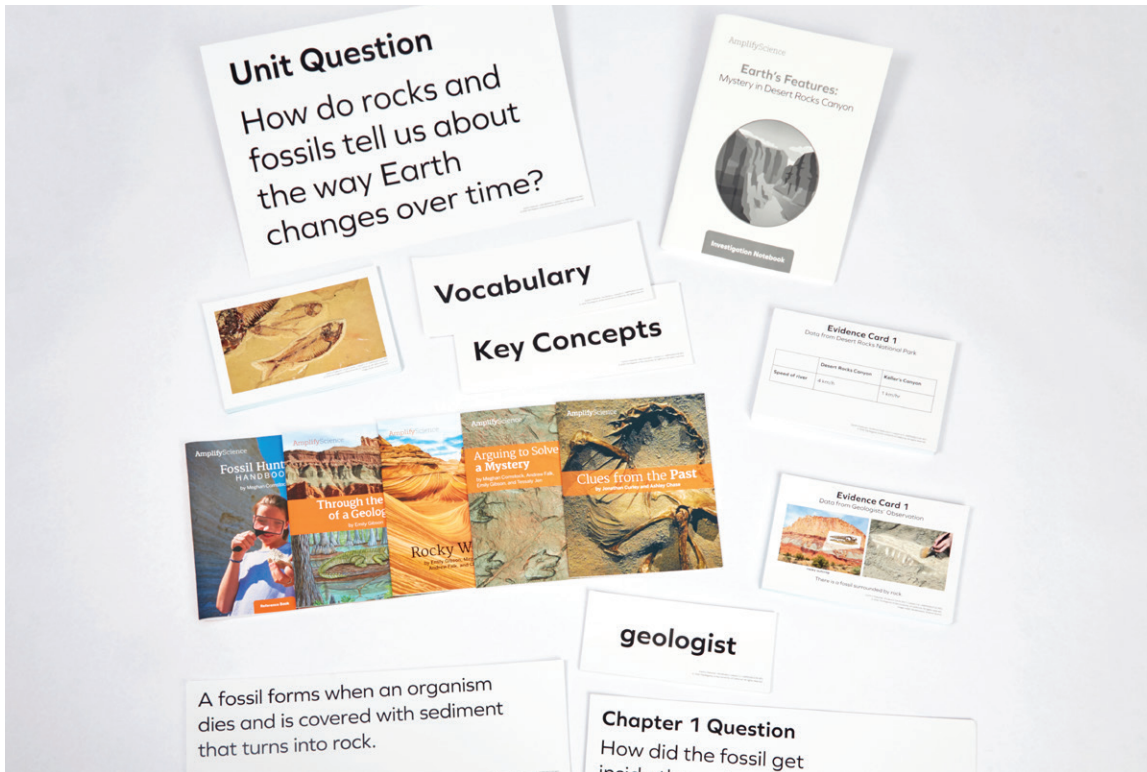
# Earth's Features



Materials in this unit are packaged in **3** boxes.

### Hands-on materials

Quantity	Description
2	plaster of Paris, powdered dry mix, 1.5 lb canisters
1	Stream Table Erosion kit
1	clay, non-drying, 16oz
24	cups, plastic, 16 oz
54	cups, plastic, 3 oz
18	conglomerate rocks
2	tray, stream table
6	sand, 2.5 kg bags
9	sandstone rocks
18	plastic spoons
12.5	gravel, cups
4	buckets
2	tubes



**Classroom materials**

Quantity	Description
9 sets	Evidence cards set 1 (3 cards/set)
9 sets	Evidence cards set 2 (4 cards/set)
9 sets	Evidence cards set 3 (5 cards/set)
9 sets	Fossil cards (2 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (16 cards/set)
1 set	Key Concepts (11 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Earth's Features: Mystery in Desert Rocks Canyon Investigation Notebook</i> (92 pages/book)
18	<i>Through the Eyes of a Geologist</i> (28 pages/book)
18	<i>Arguing to Solve a Mystery</i> (24 pages/book)
18	<i>Fossil Hunter's Handbook</i> (56 pages/book)
18	<i>Clues from the Past</i> (20 pages/book)
18	<i>Rocky Wonders</i> (28 pages/book)

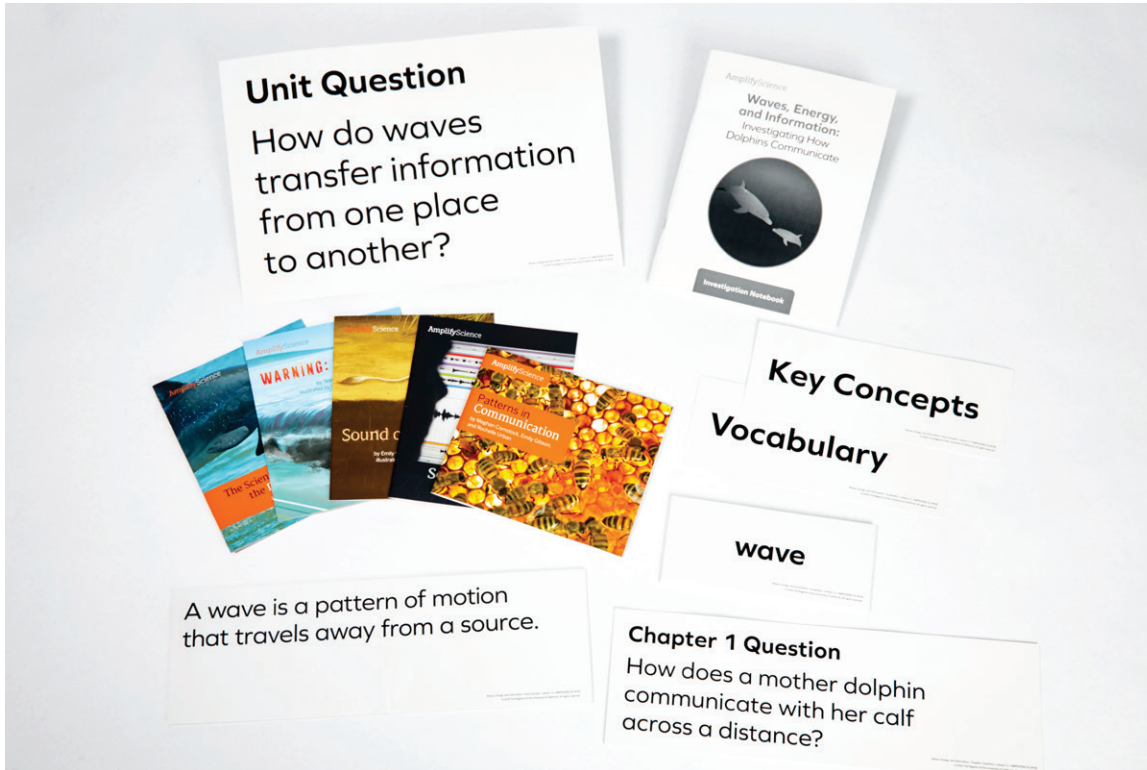
# Waves, Energy, and Information



Materials in this unit are packaged in **1** box.

### Hands-on materials

Quantity	Description
80	straws, plastic, wrapped
1	rope, 72 feet
9	Slinkys



**Classroom materials**

Quantity	Description
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (17 cards/set)
1	Unit Question card
1 set	Key Concepts

**Student materials**

Quantity	Description
1	<i>Waves, Energy, and Information: Investigating How Dolphins Communicate</i> Investigation Notebook (108 pages/book)
18	<i>The Scientist Who Cracked the Dolphin Code</i> (28 pages/book)
18	<i>Patterns in Communication</i> (48 pages/book)
18	<i>Sound on the Move</i> (28 pages/book)
18	<i>Warning: Tsunami!</i> (24 pages/book)
18	<i>Seeing Sound</i> (28 pages/book)

# Patterns of Earth and Sky



Materials in this unit are packaged in **1** box.

### Hands-on materials

Quantity	Description
24	paper, white, sheets (11" x 17")
1	ball, 15 cm diameter
18	dots, sticky, yellow
9	balls, table tennis
18	dots, sticky, green
9	globes, inflatable
18	dots, sticky, blue
18	dots, sticky, red
1	map, world





**Classroom materials**

Quantity	Description
9 sets	Word Relationship cards: set 1 (7 cards/set)
9 sets	Word Relationship cards: set 2 (7 cards/set)
18 sets	Explanation cards set (2 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (4 cards/set)
1 set	Vocabulary cards (16 cards/set)
1 set	Key Concepts (10 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Patterns of Earth and Sky: Analyzing Stars on Ancient Artifacts</i> Investigation Notebook (88 pages/book)
18	<i>Handbook of Stars and Constellations</i> (52 pages/book)
18	<i>How Big Is Big? How Far Is Far?</i> (28 pages/book)
18	<i>Dog Days of Summer</i> (20 pages/book)
18	<i>Which Way Is Up?</i> (28 pages/book)
18	<i>Star Scientist</i> (20 pages/book)

# Modeling Matter

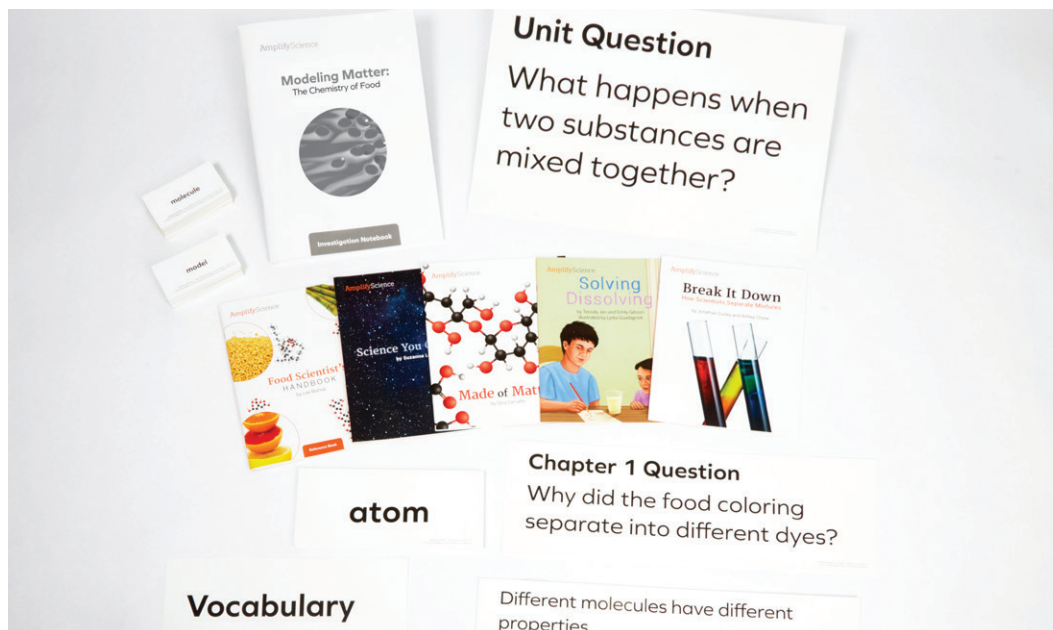


Materials in this unit are packaged in 2 boxes.

### Hands-on materials

Quantity	Description
1	acetone (nail polish remover), bottle
29	vials, small plastic jars with lid
1	lid, plastic for 32 oz container
22	labels, preprinted: citric acid
9	measuring spoons, half-teaspoon
6	labels, preprinted: cornstarch
40	paper, chromatography, strips
6	labels, preprinted: lecithin
162	cups, plastic, clear, 9 oz.
2	pasta, elbow macaroni, cups
22	labels, preprinted: pepper
1	container, plastic, 32 oz.
22	labels, preprinted: cumin
6	labels, preprinted: flour
22	labels, preprinted: sugar
60	lecithin, powder, scoops

1	marker, permanent, black
20	hook-and-loop fasteners
48	cumin, powder, scoops
48	pepper, black, scoops
8	oil, vegetable, cups
15	vinegar, white, cups
96	cups, plastic, 3 oz
98	wooden craft sticks
50	citric acid, scoops
8	cups, plastic, 2 oz
216	cups, paper, 3 oz
2	pasta, penne, cups
1	food coloring set
1	foam peanuts, cup
2	pasta, orzo, cups



2	cornstarch, cups
30	spoons, plastic
21	droppers, glass
12	balls, foam
1	felt, piece
1	funnel

**Classroom materials**

Quantity	Description
9 sets	Word Relationships cards: set 1 (8 cards/set)
9 sets	Word Relationships cards: set 2 (8 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (3 cards/set)
1 set	Vocabulary cards (14 cards/set)
1 set	Key Concepts (11 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Modeling Matter: The Chemistry of Food Investigation Notebook</i> (96 pages/book)
18	<i>Break It Down: How Scientists Separate Mixtures</i> (28 pages/book)
18	<i>Food Scientist's Handbook</i> (52 pages/book)
18	<i>Science You Can't See</i> (28 pages/book)
18	<i>Solving Dissolving</i> (24 pages/book)
18	<i>Made of Matter</i> (28 pages/book)

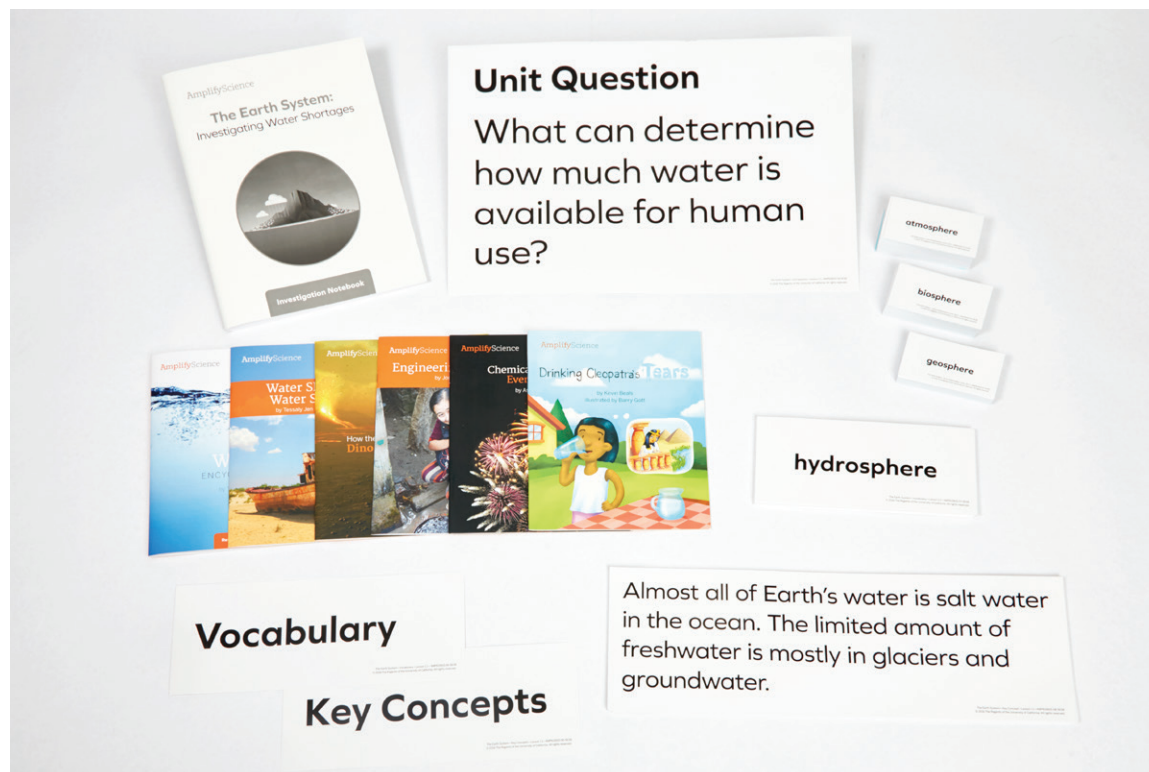
# The Earth System



Materials in this unit are packaged in 2 boxes.

### Hands-on materials

Quantity	Description
20	lids, plastic for 16oz container
1	phenol red concentrate, bottle
18	labels: "phenol red + water"
18	graduated cylinders, 25 ml
18	labels: "calcium chloride"
218	baggies, plastic with zip
2	calcium chloride, bottles
20	plastic containers, 16 oz
72	tissue paper, 4"x4" squares
18	labels: "baking soda"
30	lids, plastic for cup
20	cups, plastic, 16 oz
2	aluminum foil, rolls
198	baking soda, bottles
4	Styrofoam cups, 8 oz
36	plastic cups, 1/2 oz
92	cups, plastic, 9 oz
2	plastic wrap, rolls
1	food coloring set
1	inflatable globe
18	measuring spoons
18	squeeze bottles
9	labels: "water"
20	wooden sticks
18	droppers



**Classroom materials**

Quantity	Description
9 sets	Word Relationships cards: set 1 (4 cards/set)
9 sets	Word Relationships cards: set 2 (8 cards/set)
9 sets	Word Relationships cards: set 3 (6 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (5 cards/set)
1 set	Vocabulary cards (21 cards/set)
1 set	Key Concepts (14 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>The Earth System: Investigating Water Shortages Investigation Notebook</i> (128 pages/book)
18	<i>How the Earth System Explains Dinosaur Extinction</i> (24 pages/book)
18	<i>Water Shortages, Water Solutions</i> (24 pages/book)
18	<i>Chemical Reactions Everywhere</i> (24 pages/book)
18	<i>Drinking Cleopatra's Tears</i> (28 pages/book)
18	<i>Engineering Clean Water</i> (20 pages/book)
18	<i>Water Encyclopedia</i> (52 pages/book)

# Ecosystem Restoration



Materials in this unit are packaged in 3 boxes.

### Hands-on materials

Quantity	Description
10	containers, plastic, large, with lids
18	cubes, plastic, interlocking, green
360	cubes, plastic, interlocking, white
360	cubes, plastic, interlocking, blue
27	cubes, plastic, interlocking, red
2	soil, nutrient rich, bags
2	soil, nutrient poor, bags
50	baggies, plastic with zip
360	tokens, plastic, yellow
16	pipe cleaners, green
16	pipe cleaners, brown

18	wooden craft sticks
125	cups, plastic, 9 oz
1	seeds, alfalfa, cup
1.5	seeds, grass, cup
18	spoons, plastic
2	bottles, spray
1	yarn, ball
6	balloons



**Classroom materials**

Quantity	Description
9 sets	Leaves and Roots game cards (28 cards/set)
1 set	Organism Name cards: set 1 (36 cards/set)
1 set	Organism Name cards: set 2 (36 cards/set)
9 sets	Evidence cards: Decomposers (6 cards/set)
18 sets	Leaves and Roots game board (1 card/set)
9 sets	Evidence cards: Animals (5 cards/set)
9 sets	Evidence cards: Plants (5 cards/set)
1 set	section headers: Key Concepts, Vocabulary (2 cards/set)
1 set	Chapter Questions (3 cards/set)
1 set	Vocabulary cards (19 cards/set)
1 set	Key Concepts (13 cards/set)
1	Unit Question card

**Student materials**

Quantity	Description
1	<i>Ecosystem Restoration: Matter and Energy in a Rainforest Investigation Notebook</i> (92 pages/book)
18	<i>Restoration Case Studies</i> (56 pages/book)
18	<i>Why Do Scientists Argue?</i> (24 pages/book)
18	<i>Matter Makes It All Up</i> (24 pages/book)
18	<i>Energy Makes It All Go</i> (28 pages/book)
18	<i>Walk in the Woods</i> (24 pages/book)

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