

**Energy and Electromagnetism**  
**Grades 4 - 6**  
**FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
8	201-2372	Test objects, bags, 38 objects/bag	1	0	4	4
200	230-0110	Washers, large	25	0	0	1
400	230-0088	Washers, small	100	0	1	1
16	023-2836	AA-cells, alkaline	8	0	2	2
2	021-0693	9-volt batteries for tone generator	1	0	0	1
20	020-5809	Lightbulbs, #222	10	0	2	2
9	130-3554	Motors	1	0	2	2
<b>Consumable Equipment</b>						
16	023-1153	D-cells, alkaline	8	3	5	7
1	030-0475	Candles, birthday, box	1	0	1	1
840	040-2103-0	Recording dots, 1.3 cm (o.5")	840	0	1	1
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	141-4617	Refill Kit – Energy and Electromagnetism		0	1	1

**Teacher Supplied Materials**  
**(Numbers indicated are per class)**

***All Investigations***

- Chart paper and marking pens
- Drawing utensils (pencils, crayons, colored pencils, marking pens)
- Glue sticks
- Projection system
- Science notebooks (composition books)
- self-stick notes (for review sessions)

***For Outdoor Investigations***

- 1 Bag for carrying materials
- 1 camera (optional)
- 32 clipboards or cardboard pieces with binder clips

***Investigation 1***

- 1 Bag, sturdy paper or plastic (optional)
- 1 Computer with Internet access (optional)
  - Ice cubes
- 1 Incandescent bulb (optional)
  - Masking tape
- 1 Metric ruler or meter tape
  - Safety matches
  - Scissors
- 1 Screwdriver (optional)
- 8 Clear plastic sheet protectors (optional)

***Investigation 2***

- Scissors

***Investigation 3***

- Metal test objects (e.g., washers, machine screws, binder clips)
- Camera (optional)
- Masking tape
- 2 Steel paper clips

***Investigation 4***

- 1 Metric ruler or meter tape
- Scissors

***Investigation 5***

- 8 books
  - Computers with Internet access
- 1 Desk lamp
- Pitcher or 2 L bottle of water
- 1 Pencil for demonstration

**Environments**  
**Grades 4–6**  
**FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
1	200-4640	Tape, transparent, roll	1	0	1	1
8	200-5080	FOSS trays, clear plastic	1	8	16	24
16	200-5112	Tray columns, plastic tube	1	32	48	60
100	021-1353	Zip bags, 1 L (1 qt.)	25	4	8	12
10	031-4346	Containers, plastic, 1/4-liter	1	10	20	30
40	021-8525	Containers, plastic, 1/2-liter	1	40	80	120
12	121-3392	Container lids, 1/4-liter	12	1	2	3
50	031-0419	Cups, plastic, 250 mL (9 oz.)	25	2	4	6
50	120-2937	Cup lids, plastic, for 250 mL (9 oz.)	50	1	2	3
12	120-5710	Basin covers, 6-liter	1	12	24	36
12	023-2803	Basins, clear plastic, 6-liter	1	12	24	36
<b>Consumable Equipment</b>						
1	1440905	Animal shapes set, (5 sheets each of brown, gray, green, red)	1	0	1	1
1	1307533	Brine shrimp eggs, vial	1	0	1	1
100	030-2433	Index cards, unlined	100	0	1	1
1	192-5890	Kosher salt, box, 3 lb (1.5 kg)	1	0	1	1
1	190-1217	Seed package, barley	1	0	1	1
1	190-1283	Seed package, clover	1	0	1	1
3	190-1294	Seed packages, corn	1	0	1	1
3	190-1525	Seed packages, pea	1	0	1	1
1	190-1635	Seed package, radish	1	0	1	1
8	120-5709	Self-stick notes, pads, 100/pad	4	0	2	2
1	033-2624	Water conditioner, bottle	1	0	1	1
25	023-2913	Zip bags, 4-liter	25	0	1	2
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	144-4389	Refill Kit – Envrionments		0	1	1

**Live Organisms\***  
**(not included in kit)**

<b>Part Number</b>	<b>Description</b>	<b># Pkgs 1 Class</b>	<b># Pkgs 2 Classes</b>	<b># Pkgs 3 Classes</b>	<b># Pkgs 4 Classes</b>
1459533	Live Organism Coupon – Set of 6 organisms	1	2	3	4
270-4085	Live Organism Coupon – mealworms (200 mealworms)	1	1	2	2
1450931	Live Organism Coupon – Goldfish, Guppies (10 guppies, 2 goldfish)	1	2	3	4
270-2259	Live Organism Coupon – Aquatic Snails and Elodea (12 snails)	1	1	2	2
1450932	Live Organism Coupon – Gammarus	1	1	2	2
270-4063	Live Organism Coupon–25 pillbugs, 25 sowbugs	3	6	9	12
270-2220	Live Organism Coupon – Elodea sprigs	1	2	3	4

**\*It is recommended that teachers obtain live organisms from a local source whenever possible.**

## Teacher Supplied Materials (Numbers indicated are per class)

### **All investigations**

- Chart paper and marking pens
- Drawing utensils (pencils, crayons, colored pencils, marking pens)
- Glue sticks
- Paper towels
- 1 Projection system
- Science notebooks (composition books)
- 32 Scissors
- Self-stick notes (if you need additional for review sessions)

### **Outdoor investigations**

- 1 Bag for carrying materials
- 1 Camera (optional)
- 32 Clipboards
- 1 Marking pen, whiteboard
- 1 Timer, minutes
- Whistle
- 1 Whiteboard, portable, or chart paper and cardboard backing

### **Investigation 1: Environmental Factors**

- Apple, carrot, or potato
- Bran wheat
- Cold environment such as a refrigerator
- Leaf and ground litter, moist
- Low-power microscope (optional)
- 1 Paring knife
- 150 Mealworms
- 150 Isopods
- Newspaper
- Potting soil
- 16 Recycled paper, 20x30 cm, sheets
- 1 Pushpin
- 1 Sheet, white (optional)
- Water

### **Investigation 2: Aquatic Environments**

- 30 Amphipods (especially *Gammarus*)
- 1 Bottle, plastic
- 4–6 Elodea sprigs
- 2 Goldfish
- 10 Guppies
- 520 Food markers, such as raw elbow macaroni or short pieces of plastic straws
- 1 Paper cutter
- 10–12 Pond snails, small
- Tap water, aged or treated
- Recycled paper, white, 20x30 cm, sheets

### **Investigation 3: Brine Shrimp Hatching**

- 1 Marking pen, permanent, black
- 1 Paper cutter
- 32 Safety goggles
- Bottle water
- White paper
- Yeast (optional)

### **Investigation 4: Range of Tolerance**

- 2 Sheets of cardboard or poster board (about 76x60 cm)
- Chart paper
- 64 Marking pens, pencils, or crayons (8 black, 8 brown, 8 red, 8 green, 8 blue, 8 yellow, 8 orange, 8 purple)
- Newspaper
- 8 Paper, white, 20x30 cm, sheets
- 32 Safety goggles
- Potting soil, 24 liters
- Water

**Living Systems  
Grades 4–6  
FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
36	020-0144-0	Bags, black, plastic, 30 cm (12" long)	1	36	72	108
12	024-5416	Bags, clear, plastic, 14" x 20"	1	12	24	36
16	97-0062	Bags, clear, plastic, 30 cm (12" long)	1	16	32	48
20	023-9414	Binder clips, small	20	1	2	3
8	070-8066	Graduated cylinders	8	1	2	3
50	180-7541	Rubber bands, #33	50	0	1	1
16	021-8558	Bottles, plastic, clear, 237 mL (8 oz)	1	16	32	48
40	201-8966	Flexible tubing pieces	10	4	8	12
8	100-0570	Jars, plastic, with screw lid with holes, 2L	1	8	16	24
18	160-9618	Pipes, rigid, long, 15 cm	18	1	2	3
18	160-9629	Pipes, rigid, short, 7.5 cm	18	1	2	3
16	1451040	Rubber stoppers, 2ith 2-holes, #2	16	1	2	3
1	191-4582	String, ball	1	0	0	0
32	1450703	Valves, one way	8	4	8	12
40	021-8525	Containers, 1/2 L	40	1	2	3
16	031-4577	Cups, plastic, 473 mL (16 oz.)	1	16	32	48
16	120-3795	Lung volume bag mouthpiece holders (mouthpiece holders not needed with disposable materials)	8	0	0	0
32	120-3784	Lung volume bag mouthpieces (Disposable mouthpieces now available...see below)	32	0	0	0
16	020-0200	Lung volume bags (Disposable volume bags now available...see below)	4	0	0	0

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Consumable Equipment</b>						
100	030-2433	Index cards, unlined	100	0	1	1
6	191-7145	Seed packages, wheat, 2 oz./pkg	1	0	6	6
2	120-7529	Self-stick notes, 100/pad	1	0	1	1
100	190-6497	Straws, jumbo, clear	50	0	1	2
2	250-0596	Yeast, bakers, dry, 0.5 kg/bag	1	0	0	1
50	021-1353	Zip bags, plastic, 1 L	25	0	1	2
	1531189	Lung volume bag mouthpieces	50	1	2	3
	1531431	Lung volume bags	60	1	2	3
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	145-1376	Refill Kit – Living Systems		0	1	1

**Live Organisms\***  
**(not included in kit)**

Qty	Part Number	Description	# Pkgs 1 Class	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
150	1450925	Live Organism Coupon–Redworms	1	2	3	4
5	270-4129	Live Organism Coupon–Painted Lady Larvae	2	4	6	8

**\*It is recommended that teachers obtain live organisms from a local source whenever possible.**

## **Teacher Supplied Materials** **(Numbers indicated are per class)**

### ***All investigations***

- Chart paper and marking pens
- Computer with Internet access
- Drawing utensils (pencils, crayons, colored pencils, marking pens)
- Glue sticks
- Paper towels
- 1 Projection system
- Science notebooks (composition books)
- 8 Scissors
- Self-stick notes (if you need additional for review sessions)

### ***Outdoor investigations***

- 1 Bag for carrying materials
- 1 Camera (optional)

### ***Investigation 1: Systems***

- 1 Crate or carton, about 30 cm x 50 cm
- Natural ground litter
- Newspaper
- Organic kitchen waste
- 1 Paper cutter
- 1 Piece of luggage
- 8 Pieces of recycled paper
- 150 Redworms (compost worms)
- Soil from a garden

### ***Investigation 2: Nutrient Systems***

- 1 Box of animal crackers
- 4 Bottles, soft-drink, empty, 2 L
- 1 Construction paper piece, red or orange
- Flour, cup, 236 mL (1 cup)
- 1 Hole punch
- 1 Ice chest or hot plate/large coffee urn
- Mallow leaves, fresh (optional)
- Measuring spoon, 1.25 mL (1/4 tsp)
- Orange, fresh (optional)
- 5–10 Painted lady butterfly larvae
- Paper towels
- 1 Paring knife (optional)
- Potting soil, about 16 L
- Sugar, 350 mL (about 1.5 cups)
- Water, hot, 40–50°C

### ***Investigation 3: Transport Systems***

- Bleach, household, 15–30 mL
- Detergent
- Leaves (optional)
- Masking tape
- Paper towels, very absorbent
- Paper towels, ordinary
- Thin plastic bag (e.g. grocery produce bag)

### ***Investigation 4: Sensory Systems***

- 16 Half sheets of paper (optional)
- 1 Hole punch
- Paper bags, large (optional)
- Paper towels
- 16 Pieces of scratch paper
- Rice or beans
- Transparent tape



<b>Measuring Matter Grade 3 FOSS 3rd Edition</b>						
Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
50	190-5914	Sticks, craft	50	0	1 pkg	1
100	190-6497	Straws, jumbo	50	0	0	1
50	021-1353	Zip bags, 1 L (1 qt.)	25	0	1	1
24	023-2902	Zip bags, small	24	1	2	2
32	1326146	Container lids, with slits	32	0	1	1
50	031-0419	Cups, plastic, small, 250 mL (9 oz.)	25	0	2	2
20	050-0708	Evaporation dishes, with plastic lids	10	1	2	3
8	190-9775	Sponges, small	8	1	2	3
2	070-2558	Gravel, containers, 640 g/container (1.4 lb.)	1	2	4	6
1	120-9781	Lamp	1	1	2	3
1	120-2332	Lightbulb, 60 watt	1	1	2	3
1	160-1115	Pebbles, bag, small, 0.5 k/bag (1.1 lb.)	1	0	1	1
1	160-4514	Pen, marking, permanent	1	0	1	1
1	191-3559	Potting soil, bag, 2 kg/bag (4 lb.)	1	1	2	3
2	192-6374	Sand, containers, 750 g/container (1.7 lb.)	1	2	4	6
80	1326153	Vials, plastic, with screw caps	20	2	4	5
<b>Consumable Equipment</b>						
1	200-8786	Adding-machine tape, roll	1	1	2	3
2	021-1200	Baking soda, containers, 450 g/container (1 lb)	1	2	4	6
1	034-1031	Calcium carbonate (natural chalk), container, 1	1	1	2	3
1	030-0475	Candles, birthday, dripless, box, 24/box	1	0	1	1
1	060-1325	Food coloring, set, 4 colors/set	1	0	1	1
1	191-1117	Salt, kosher, container, 310 g/container (2/3 lb)	1	1	2	3
2	160-8155	Self-stick notes, small, pad, 100/pkg	2	0	0	1
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	140-2673	Refill Kit – Measuring Matter		0	1	1

**Teacher Supplied Materials**  
**(Numbers indicated are per class)**

**All Investigations**

- Chart paper and marking pens
- Drawing utensils (pencils, crayons, colored pencils, marking pens)
- Glue sticks
- Projection system
- Safety goggles
- Science notebooks (composition books)

**For Outdoor Investigations**

- 1 Bag for carrying materials  
32 Clipboards or cardboard pieces with binder clips
- Containers for water (plastic gallon jugs or 2 L soft-drink bottles with caps)

**Investigation 1**

- 32 Scissors
- Scratch paper
  - Transparent tape

**Investigation 2**

- 1 Apple or orange (or other object)  
1 Book  
8-16 Cans or bottles, empty
- Chocolate chips, 150 mL (about 1/2 cup)
  - Corn syrup, 150 mL (1/2 cup), dark or light
  - Liquid dishwashing detergent, 150 mL (1/2 cup)
  - Paper towels
- 1 Rock  
1 Scissors
- Scratch paper
  - Transparent tape
  - Water

**Investigation 3**

- 2 Cardboard pieces, 20 x 25 cm, (8" x 10")

8–10 Chocolate chips

18 Ice cubes

- Ice water
  - Insulated bag or ice chest
  - Margarine stick, refrigerated
  - Oil, vegetable, 125 mL (about 1/2 cup)
  - Orange juice, 125 mL (about 1/2 cup)
  - Paper towels
- Rubbing alcohol, 125 mL (about 1/2 cup)

1 Scissors

• Scratch paper

• Tape, masking

• Tape, transparent

1 Vacuum bottle, coffeepot, or hot pot

• Watch or clock

• Water, hot, 40°C–50°C

• Water, hot, 60°C

• Water, room-temperature

**Investigation 4**

1 Calculator

• Paper towels

• Stopwatches/clocks

• String (optional)

8 Tagboards or large sheets of paper, 56 x 71 cm (22" x 28")

• Tape, masking (optional)

• Vinegar, white, bottle, 1 L (1 qt.)

• Water

**Motion, Force, and Models**  
**Grades 4 - 6**  
**FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
100	84472	Paper clips, regular	1	0	1	2
100	190-5914	Craft sticks	50	0	1	2
100	191-1128	Craft-stick pieces	100	0	1	1
12	050-3461	Eggs, plastic	12	0	1	1
<b>Consumable Equipment</b>						
2	191-1469	String, roll, 30 m	1	0	1	1
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	144-9811	Refill Kit – Motion, Force, and Models		0	1	1

## Teacher Supplied Materials (Numbers indicated are per class)

### ***For all investigations***

- Chart paper and marking pen
- Computer with Internet access
- Drawing utensils (pencils, colored pencils, marking pens)
- Glue sticks (if you need additional)
- 1 Projection system (with Internet access)
- Science notebooks (composition books)
- 32 Scissors
- Self-stick notes (for review sessions)

### ***For outdoor investigations***

- 1 Bag for carrying materials
- 1 Camera (optional)
- Containers for water (plastic gallon jugs, 2-L soft-drink bottles, bucket)

Pencils

### ***Investigation 1: Motion and Variables***

- 1 Ball (optional)
- 1 Cardboard strip, 6.5 x 81 cm (2.5" x 32")
- 1 Clock with a second hand, or stopwatch
- Index cards or scratch paper (optional)
- 1 Marking pen, whiteboard
- 50 Pennies
- 1 Wagon or cart (optional)

### ***Investigation 2: Balls, Ramps, and Energy***

- Balls for outdoor extension
- Calculator (optional)
- 1 Watch or clock with a second hand, or stopwatch

### ***Investigation 3: Springs and Energy***

- 8 Calculators (optional)
- Computer with Internet access
- 50 Pennies
- Scratch paper
- White glue

### ***Investigation 4: Models and Design***

- Camera (optional)
- 2 Chairs or safety cones
- Containers, clean, reusable: lids, trays, packing peanuts, shredded paper, etc.
- 1 Ladder, folding (optional)
- 25 Marshmallows
- Materials assortment (clothespins, paper clips, straws, pipe cleaners, balloons, string, rubber bands, plastic spoons, etc.)
- 1 Pitcher or 2-liter recycled soft-drink bottle
- Piece of rope or string, 75 cm
- Scissors
- Self-stick notes
- Tubs or large bags
- 1 Wading pool, large plastic basin, or bus tray
- Water

**Mixtures and Solutions**  
**Grades 4 - 6**  
**FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
200	190-5914	Craft sticks	50	0	1	2
40	050-0708	Evaporation dishes	10	0	2	4
1	180-7772	Magnetite package (ilmenite), small, 96 g (3.4 oz.)	1	0	1	1
50	031-9868	Cups, plastic, 250 mL	1	0	25	50
4	200-5080	FOSS® trays, plastic	1	4	8	12
2	070-2558	Gravel, containers, 640 g/container (1.4 lb.)	1	0	2	2
<b>Consumable Equipment</b>						
5	160-8144	Self-stick notes, 100/pad	5	0	1	2
50	025-2430	Zip bags, 1 L	25	0	2	4
50	190-6497	Straws, jumbo, clear	50	0	1	2
2	021-1200	Baking soda, containers, 450 g/container (1 lb.)	1	0	1	2
2	031-2608	Calcium chloride, containers, 480 g/container (1.1 lb.)	1	0	1	2
1	034-1031	Calcium carbonate, container, 150 g/container (0.1 lb.)	1	0	1	2
6	031-2212	Citric acid, containers, anhydrous, granular, 480 g/cont. (1.1 lb.)	1	0	1	2
2	040-2236	Diatomaceous earth, containers, 160 g/container (0.35 lb.)	1	0	1	2
3	050-1159	Epsom salts, containers, 500 g/container (1.1 lb.)	1	0	3	6
200	160-4844	Filter papers, round, coffee, 20 cm (8") diameter	50	0	2	4
1	060-1325	Food coloring, set, 4 colors/set	1	0	1	1
1	192-5890	Salt, kosher, box, 1.36 kg/box (3 lb.)	1	0	1	2
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	140-2672	Refill Kit – Mixtures and Solutions		0	1	1

**Teacher Supplied Materials  
(Numbers indicated are per class)**

**All Investigations**

- Chart paper and marking pens
- Drawing utensils (pencils, crayons, colored pencils, marking pens)
- Glue sticks
- Projection system
- Safety goggles
- Science notebooks (composition books)
- self-stick notes (for review sessions)

**For Outdoor Investigations**

1 Bag for carrying materials

16 Bottles, plastic drinking-water, recycled, 1/2 L

32 Clipboards or cardboard pieces with binder clips

- Containers for water (plastic gallon jugs or 2 L soft-drink bottles with caps)

**Investigation 1**

- Microscopes, low power (optional)
- Paper towels
- Scratch paper
- Transparent tape
- Water

**Investigation 2**

4 Bottles, 1 L

powder

65 Cups, paper, 170 mL (3 oz.)

- Paper towels
- 1 Pen, marking, permanent
- 1 Scissors
- Scratch paper, white
- 1 Spoon, stirring, large
- Transparent tape
  - Water

**Investigation 3**

1 Bucket (optional)

- Paper towels
- Scratch paper
- Transparent tape
- Water

**Investigation 4**

1 Bucket (optional)

8 Paper, pieces, white

- Paper towels
- Scratch paper
- Transparent tape
- Vinegar, white, 500 mL (2 cups)
- Water

**Sun, Moon, and Planets**  
**Grades 4 - 6**  
**FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
16	031-4621	Cardboard sheets	1	16	32	48
1	1015596	Cut-and-stick Moon set, 35/set	1	1	2	3
2	1408349	Posters, Moon Calendar	1	2	4	6
50	192-3690	Straws, short, slim	50	0	1	1
32	023-2836	AA cells	8	0	4	4
20	201-1283	Golf tees	20	1	2	3
<b>Consumable Equipment</b>						
16	033-8937	Chalk, sidewalk	16	0	1	1
1	200-4640	Transparent tape, roll	1	0	1	1
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	144-9843	Refill Kit – Sun, Moon, and Planets		0	1	1

## **Teacher Supplied Materials** **(Numbers indicated are per class)**

### ***For all investigations***

- Chart paper and marking pen
- Computer with Internet access
- Drawing utensils (pencils, colored pencils, marking pens)
- Earth globe 23–30 cm diameter (optional)
- Glue sticks (if you need additional)
- 1 Projection system (with Internet access)
- Science notebooks (composition books)
- Scissors
- Self-stick notes (for review sessions)

### ***Investigation 1: Sun and Earth***

- 1 Extension cord (optional)
- 1 File or small knife
- Painter's tape
- 1 Rolling cart (optional)
- 1 Ruler
- Scratch paper
- 8 Straight edges
- 1 Watch or clock
- White glue
- 1 Piece of white paper

### ***Investigation 2: Earth's Moon***

- Calculators
- 1 Extension cord (optional)
- Overhead projector (optional)

### ***Investigation 4: Patterns in the Sky***

- 1 Extension cord (optional)
- 1 Pitcher or bucket
- Newspaper sheets
- Water



**Soils, Rocks, and Landforms**  
**Grades 4 - 6**  
**FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
2	033-3028	Chalk, white, boxes, 10-12/box	1	0	1	1
64	120-9956	Evaporation dishes	32	0	1	2
8	200-5080	FOSS trays, clear plastic	1	8	16	24
10	180-2987	Mineral, calcite, large	5	0	1	1
10	180-0776	Mineral, calcite, samples, small (fits in 12-dram vial)	5	2	4	6
10	180-5660	Rock, basalt, samples, small (fits in 12-dram vial)	10	1	2	3
30	1411645	Rock, limestone, samples, small (fits in 12-dram vial)	30	0	1	1
10	180-1095	Rock, marble, samples, small (fits in 12-dram vial)	5	2	3	5
10	180-1216	Rock, sandstone, samples, small (fits in 12-dram vial)	5	2	3	5
1	222-0195	Vial holder	1	1	2	3
40	221-4123	Vials with caps, 12 dr.	20	2	4	6
50	031-0419	Cups, plastic, 250 mL (9 oz.)	25	0	1	2
1	200-0261	Duct tape, roll	1	0	0	1
72	1364369	Paper plates	9	0	4	8
40	1411638	Rocks, conglomerate	40	0	0	1
40	077-8928	Rocks, granite, gray	40	0	0	1
25	021-1353	Zip bags, 1 L (1 qt.)	25	1	2	3
8	1412098	Stream tables (tray, plastic)	1	8	16	24
3	030-4920	Clay, bags, powdered, white, 0.45 kg (1 lb.)/bag (for stream table)	1	3	6	9
9	192-7859	Sand, fine, bags, 1.35 kg (3 lb.)/bag (for stream table)	1	9	18	27
<b>Consumable Equipment</b>						
1	032-3168	Clay, bag, powdered, gray, 0.45 kg-bag (1 lb.)	1	1	2	3
100	030-7295	Cotton swabs	100	0	1	1
1	060-1325	Food coloring, set	1	0	1	1
1	070-7057	Gravel, bag, 2.3 kg/bag (5 lb.)	1	1	2	3
2	160-1115	Pebbles, bags, small, .5kg/bag (1 lb.)	1	1	2	3
1	191-3559	Potting soil, 2 L, 2 kg/bag (4 lb.)	1	1	2	3
1	192-6352	Sand, mountain stream, container, 1 kg/container (2 lb.)	1	1	2	3
5	160-8144	Self-stick notes, 100/pad	5	0	1	1
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	141-2403	Refill Kit – Soils, Rocks, and Landforms		0	1	1

## **Teacher Supplied Materials** **(Numbers indicated are per class)**

### ***All Investigations***

- Chart paper and marking pens
- Drawing utensils (pencils, crayons, colored pencils, marking pens)
- Glue sticks
- Projection system
- Science notebooks (composition books)
- Self-stick notes (for review sessions)

### ***For Outdoor Investigations***

- 1 Bag for carrying materials  
32 Clipboards or cardboard pieces with binder clips
- Containers for water (plastic gallon jugs or recycled 2 L soft-drink bottles with caps)
  - Pencils
  - String (optional)

### ***Investigation 1***

- 1 Computer with Internet connection (optional)  
1 Glass bottle with tight-fitting cap
- Newspaper
- 1 Permanent black marking pen
- Safety goggles
- 1 Sturdy plastic bag
- Transparent tape
  - Vinegar, white (about 1.2 L per class)
  - Water
- 8 Zip bags, large

### ***Investigation 2***

- Cameras (optional)
- 1 Dustpan and broom  
cardboard, craft sticks)
- Newspaper
  - Paper towels
- 4 Empty recycled soft-drink bottles w/ caps, 2 L
- Transparent tape
- 1 Watering can, large outdoor (optional)

### ***Investigation 3***

- 1 Bag of local rocks (optional)
- Safety goggles
  - Vinegar, white (100 mL per class)
- 8 Sheets of white paper, 8.5" x 11"

### ***Investigation 4***

- 1 Bucket  
1 Camera (optional)  
1 Cardboard box, ~30 cm (1') square
- 1 Bag of ready-mix concrete, 5 kg (10 lb.)
- 1 Garbage bag or piece of plastic  
1 Pair of rubber or gardening gloves
- Local gravel, ~1 cup per class
- 8-16 Local pebbles
- Local sand, 1 cup per class

**Structures of Life**  
**Grade 3**  
**FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
2	023-2803	Basins, clear plastic, 6-liter	1	2	4	6
1	1427316	Black-eyed peas, package	1	0	1	1
20	120-7692	Container lids, plastic, 1/4 L and 1/2 L	20	1	2	3
20	031-4346	Containers, plastic, 1/4-liter	1	20	40	60
100	030-7262	Cotton balls	100	0	1	1
50	190-5914	Craft sticks	50	0	1	1
25	031-0419	Cups, plastic 250 mL (9 oz)	25	0	0	1
4	080-1723	Hydroponic plant holders	4	1	2	3
36	160-2369	Pipe cleaners	36	0	1	1
100	180-2888	Rubber bands, #19	100	0	1	1
1	190-9742	Sprouter ( 3 trays, 1 bowl, 1 lid)	1	1	2	3
50	190-6497	Straws, jumbo	50	0	1	1
1	191-1469	String, roll, 30 m (98.5')/roll	1	0	1	1
2	200-0371	Tape, masking, rolls	1	0	2	2
1	200-1746	Toothpicks, box	1	0	1	1
10	221-4156	Vials, 12 dram, with caps	10	1	2	3
50	021-1353	Zip bags, 1-liter	25	1	3	4
10	260-0190	Zip bags, 4-liter	10	1	2	3
40	191-4857	Craft sticks, with holes, 11 cm (4.25")	20	1	3	5
40	191-4846	Craft-stick pieces with hole, 4 cm (1.5")	20	1	3	5
2	031-0452	Crayfish house sets, plastic, 4/set	4	2	4	6
40	040-2995	Dowels, short with holes, 18 cm	20	1	3	5
1	070-8088	Gravel, container, mixed, 2kg/container	1	1	2	3
300	84472	Paper clips, regular	100	3	6	9
400	59946	Paper fasteners, #2, 1/2"	100	0	0	2
70	181-0222	Rubber bands, #62	70	0	1	1
25	201-1338	Rubber tubes with hole	25	1	2	3
64	201-1272	Rubber tubes without hole	64	1	2	3
1	201-3755	Tape, duct, roll, 3m (10') /roll	1	0	0	1
1	200-5970	Transparency, Leg Muscle	1	0	0	0
8	1386539	Trowels	1	0	0	0
75	200-5960	Twist ties, plastic, 10 cm long	75	0	1	1
3	009-0210	Bus trays	1	3	6	9

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Consumable Equipment</b>						
120	1428618	Dots, adhesive, blue	120	0	1	1
50	160-4844	Filter papers, round	50	0	0	1
1	140-0937	Nutrient powder, bag	1	0	1	1
4	190-1228	Seeds, bush bean, packages	4	0	1	1
1	021-7425	Seeds, lima bean, package	1	0	1	1
2	190-1525	Seeds, pea, packages	1	0	2	2
2	190-1613	Seeds, popcorn, packages	1	0	2	2
2	190-1701	Seeds, sunflower, packages	1	0	2	2
2	120-2475	Self-stick notes, pads, 100/pad	1	0	0	1
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	142-8714	Refill Kit – Structures of Life		0	1	1

**Live Organisms\***  
**(not included in kit)**

Qty	Part Number	Description	# Pkgs 1 Class	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
12 crayfish and elodea	270-4184	Live Organism Coupon – Crayfish, Anacharis (Elodea) – <b>if sharing crayfish among classes; if not need 1 set per class</b>	1	1	1	1
6	150-0905	Owl Pellets – Large <b>(not live organism, but needs to be purchased separately)</b>	3	6	12	18

**\*It is recommended that teachers obtain live organisms from a local source whenever possible.**

**Teacher Supplied Materials**  
**(Numbers indicated are per class)**

**All Investigations**

- Chart paper and marking pen
- Drawing utensils (pencils, crayons, colored pencils, marking pens)
- Glue sticks
- Paper towels
- 1 Projection system with Internet connection
- Self-stick notes

**Outdoor investigations**

- 1 bag for carrying materials
- 16 clipboards
- Containers for water (plastic gallon jugs, 2 L soft-drink bottles, buckets)
- Pencils

**Investigation 1: Origin of Seeds**

- 25–40 Bean or pea pods
- Bleach, 50 mL
- 1 Camera (optional)
- Construction paper, several colors
- Fruit
- Microscope (optional)
- Newspaper
- 16 Paper or plastic plates
- 1 Pitcher or bucket (optional)
- Water
- White glue

**Investigation 2: Growing Further**

- 2 Shopping bags, large, opaque
- 1 Camera (optional)
- Construction paper, several colors
- Hole punch
- 1 Lamp with 75-watt bulb (optional)
- 1 Plant with fibrous roots
- 1 Plant with taproots
- Water

**Investigation 3: Meet the Crayfish**

- 12 Crayfish
- 1 Bag of elodea (water plant)
- Ice (optional)
- 1 Marking pen, permanent, fine tip
- 1 Metric ruler
- Popped popcorn, 4–5 L (4–5 qt.) (or beans or acorns)
- 16 Pieces of recycled paper
- Swiss chard (optional)
- 1 Timer/stopwatch
- Tissues
- Water, aged
- 1 Whistle
- 1 Whiteboard, portable
- 1 Whiteboard marking pen

**Investigation 4: Human Body**

- Adhesive paper
- Colored pens or pencils (optional)
- Document camera (optional)
- Gloves (optional)
- 16 Jump ropes
- 1 Spray mister (optional)
- 1 Nail (optional)
- Newspaper (optional)
- 16 Owl pellets
- 32 Paper plates
- 32 Pencils, #2
- Plastic wrap (optional)
- Scratch paper, white
- Water
- White glue

**Water  
Grade 3  
FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
10	023-9040	Bottles, glass, 8 dram (1 oz.)	1	1	2	3
20	032-6809	Clothespins	20	0	0	1
1	070-2558	Container of gravel	1	1	2	3
1	200-2516	Ice-cube tray	1	1	2	3
18	162-7935	Pipes, rigid plastic, clear, 10 cm (4")	18	0	1	1
25	180-4153	Rubber bands, #14	25	1	1	2
10	193-8294	Rubber stoppers, #1, with 1 hole	10	1	2	3
25	161-8270	Sticks, craft	25	0	1	1
20	222-0500	Vials, soft, 50 mL, with caps	20	1	2	3
50	031-0419	Cups, plastic, 250 mL (9 oz.)	25	0	1	1
20	031-4588	Filter cups with holes, 250 mL (9 oz.)	1	0	1	1
20	120-2453	Lids, plastic, dome	1	0	1	2
10	120-1970	Lids, plastic, flat	5	1	2	3
8	200-4936	Trays, cafeteria	1	1	2	3
8	024-5427	Plastic bags, 16 L (4 gal.)	8	1	2	3
8	030-6426	Containers, 1/2 L	9	1	2	3
8	032-8822	Containers, 1 L	1	1	2	3
8	070-8066	Graduated cylinders, 50 mL	8	1	2	3
8	190-9731	Syringes, 50 mL	1	1	2	3
50	021-1353	Zip bags, 1 L (1 qt.)	25	0	1	1
24	023-2902	Zip bags, small	24	1	2	3
<b>Consumable Equipment</b>						
1	010-1397	Aluminum foil, roll	1	0	0	1
1	1328147	Cobalt chloride test paper, 100 strips/package	1	0	1	1
50	160-4844	Filter papers, round coffee filters, 20-cm diameter	50	0	1	1
1	060-1325	Food-coloring set, 4 colors/set	1	0	1	1
200	030-2433	Index cards, plain, 3" X 5"	100	0	1	1
2	160-4514	Marking pens, permanent	1	0	1	1
1	191-3559	Potting soil, 2 kg/bag (4 lb.)	1	0	1	1
1	180-4440	Rock salt, 454 g (1 lb.)	1	0	1	1
5	160-8144	Self-stick notepads, 100/pad	5	0	1	1
1	191-4582	Ball of string, thin, 292 m (960')	1	0	1	1
1	160-0972	Waxed paper, roll	1	0	1	1
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	141-5503	Refill Kit – Water		0	1	1

**Teacher Supplied Materials**  
**(Numbers indicated are per class)**

**All Investigations**

- Chart paper and marking pens
- Drawing utensils (pencils, crayons, colored pencils, marking pens)
- Glue sticks
- Projection system
- Science notebooks (composition books)

**For Outdoor Investigations**

- 1 Bag for carrying materials
- 32 Clipboards or cardboard pieces with binder clips
- Containers for water (plastic gallon jugs or recycled 2 L soft-drink bottles with caps)
- Pencils

**Investigation 1**

- 16 Books, thick
- Liquid dishwashing detergent
- Paper towels
- 50 Pennies
- 8 Scissors
- 8 Sheets of white paper
- Transparent tape
- Water
- Vinegar, white, 200 mL per class

**Investigation 2**

- Cooler/ice chest (optional)
- 1 Hot plate (optional)
- Ice cubes
- 1 Penny
- Paper towels
- Pencil or crayons, red and blue
- 1 Plastic bag
- 8 Scissors
- 1 Shovel (optional)
- 1 Stopwatch
- Transparent tape
- 1 Vacuum bottle
- Water (hot water, cold water, room-temperature water)

**Investigation 3**

- Empty soft-drink cans (optional)
- Ice cubes
- 1 Large sheet of paper (optional)
- Paper towels
- Transparent tape
- Water (hot water, cold water, room-temperature water)

**Investigation 4**

- Newspapers
- Paper towels
- 8 Screwdrivers (optional)
- 1 Shovel or trowel (optional)
- Small weights (optional)
- 1 Stopwatch (or other timer)

**Weather on Earth**  
**Grades 4 - 6**  
**FOSS 3rd Edition**

Qty. in Kit	Part Number	Description	Qty in repl. pkg	# Pkgs 2 Classes	# Pkgs 3 Classes	# Pkgs 4 Classes
<b>Permanent Equipment</b>						
1	120-9781	Lamp, clip-on, without shade	1	1	2	3
1	120-2332	Lightbulb, 60-watt	1	1	2	3
1	160-4514	Marking pen, permanent	1	0	0	1
1	191-3559	Potting soil, 2 kg/bag (4 lb.)	1	1	1	1
1	200-4640	Transparent tape, roll	1	0	1	1
1	020-9163	FOSS® balance	1	1	2	3
50	031-0419	Cups, plastic, 250 mL (9 oz.)	25	0	1	2
16	031-3730	Cups, plastic-foam, 180 mL (6 oz.)	1	0	0	8
12	120-2453	Lids, plastic, dome	1	4	12	20
20	120-2497	Lids, plastic, flat, with slits	10	0	1	1
25	162-7193	Pipettes, thin, plastic, beral-type	25	0	1	1
20	025-7765	Zip bags, 7 x 12 cm	20	0	1	1
<b>Consumable Equipment</b>						
1	060-1325	Food-coloring set, 4 colors/set	1	0	1	1
100	030-2433	Index cards, plain, 3" X 5"	100	0	1	1
2	180-4440	Rock salt, containers, 454 g (1 lb.)	1	0	2	4
1	120-2475	Self-stick notes, pad, 100/pad	1	0	1	2
<b>Refill Kit (2 class uses of all consumable materials)</b>						
	141-6872	Refill Kit – Weather on Earth		0	1	1



**Teacher Supplied Materials**  
**(Numbers indicated are per class)**

**All Investigations**

- Chart paper and marking pens
- Computer with Internet connection
  
- Drawing utensils (pencils, crayons, colored pencils, marking pens)
  
- Glue sticks
  
- Projection system
- Safety goggles
- Science notebooks (composition books)
  - Self-stick notes and scissors (for review sessions)

**For Outdoor Investigations**

- 1 Bag for carrying materials
- 32 Clipboards or cardboard pieces with binder clips
- Pencils

**Investigation 1**

- 1 Local weather report
- 1 Metal fork
- Scissors
- Watch

**Investigation 2**

- Cooler/ice chest (optional)
- 1–2 Heat lamps (optional)
- 1 Hot pot or hot plate (optional)
- Ice cubes
- Paper towels
- Pencils or crayons, four different colors
- 1 Penny
- Sheets of white paper
- 1 Vacuum bottle (optional)
- Watch or stopwatches
- Water (hot water, cold water, room-temperature water)

**Investigation 3**

- Cooler/ice chest (optional)
- Hand lenses (optional)
- Freezing cold objects (e.g., containers of water, metal objects, small bangs of sand) -- (optional)
- Ice cubes (4–6 cups of crushed ice plus 12–15 larger cubes to make ice water. Plan on more large cubes for optional inquiry)
- Paper towels
- 1 Plastic bag, sturdy, 4 L or gallon size
- Small plastic bags
  
- 1 Small trowel (for crushing ice)
  
- Soft-drink cans, empty, recycled (optional temperature water)
- 1 Wooden spoon, flat mallet, rolling pin, or muddler (for crushing ice)

**Investigation 4**

- Color printer
- Weather maps, 5 consecutive days, North America