

## 5th Grade - \*included in kit\*

<p><b>Week 1</b></p>	<ul style="list-style-type: none"> <li>• Items to measure (string, desk, door, whiteboard, popsicle stick, teacher's desk, playground equipment, etc.)</li> <li>• Metric rulers</li> <li>• Metersticks</li> <li>• *Jar*</li> <li>• 10 objects to measure</li> </ul>	<ul style="list-style-type: none"> <li>• *Beakers*</li> <li>• *Graduated cylinders*</li> <li>• *Digital scales* or *analog balances*</li> <li>• *Thermometers*</li> <li>• Classroom objects to measure (optional)</li> </ul>
<p><b>Week 2</b></p>	<ul style="list-style-type: none"> <li>• *Magnifying glasses*</li> <li>• Meterstick, yardstick, or *measuring tape*</li> <li>• Red (5), blue (3), white (2), black (1), and other colors (480) of *building bricks* (15 bricks per student tower; increase the number if the tower is bigger)</li> </ul>	<ul style="list-style-type: none"> <li>• Graph paper</li> <li>• Metersticks or yardsticks</li> <li>• Paper</li> <li>• Pennies or *washers*</li> <li>• Colored pencils, *markers*, and/or crayons</li> </ul>
<p><b>Week 3</b></p>	<ul style="list-style-type: none"> <li>• Research materials (online resources, library books, etc.)</li> <li>• Materials to build arches (paper towel rolls, toilet paper rolls, *pipe cleaners*, thin cardboard, *popsicle sticks*, *clay*, *plastic beads*, other recycled materials, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Planner</li> <li>• Rulers (optional)</li> <li>• Graph paper (optional)</li> <li>• Empty desks or tables</li> <li>• *Stopwatches* or timers</li> <li>• Highlighters</li> </ul>
<p><b>Week 4</b></p>	<ul style="list-style-type: none"> <li>• *Bottles of glue*</li> <li>• *Craft sticks*, *cotton swabs*, or other applicators</li> <li>• Paper</li> <li>• *Balloons (ideally light-colored)*</li> <li>• *Scales*</li> <li>• *Flashlights*</li> <li>• *Plastic syringes*</li> <li>• *Ping-pong balls*</li> <li>• Balls of clay* or pieces of chocolate</li> <li>• *Magnifying glasses*</li> <li>• *Plastic knives*</li> <li>• Bottle of air freshener</li> <li>• Clear container</li> <li>• Warm water</li> <li>• *Food coloring*</li> <li>• *Borax solution*</li> <li>• *Plastic spoons*</li> <li>• *Disposable cups*</li> <li>• Cardstock, cardboard, or construction paper as foundation for mosaics</li> </ul>	<ul style="list-style-type: none"> <li>• Containers full of small pieces that students can use to create their mosaics**</li> <li>• The Borax solution should be pre-mixed: 1½ generous spoonfuls of Borax per 90 mL of water. Borax is a name-brand cleaning chemical usually found with laundry detergents in the store. One box should last many years since very little of it is used for this lab.</li> <li>• **Mosaics can be made of anything. They do not necessarily need to be made of the same materials. For example, students may wish to mix beads and stones. There are usually containers of miscellaneous small pieces at thrift stores. You could also have students bring objects from home. Some examples of mosaic materials include: buttons, beads, tiles, shells, stones, paint sample cards, etc.</li> </ul>

<b>Week 5</b>	<ul style="list-style-type: none"> <li>● Yarn or *string*</li> <li>● Scissors</li> <li>● Standard ruler</li> </ul>	<ul style="list-style-type: none"> <li>● Metersticks</li> <li>● Red pens</li> <li>● Four signs</li> </ul>
<b>Week 6</b>	<ul style="list-style-type: none"> <li>● *Balance scale*</li> <li>● *Plastic spoons*</li> <li>● *Plastic cups*</li> <li>● Water</li> <li>● Sugar</li> <li>● *Bags of building blocks*</li> </ul>	<ul style="list-style-type: none"> <li>● *Plastic bags*</li> <li>● Ice cubes</li> <li>● *Digital scales*</li> <li>● *Effervescent antacid tablets*</li> <li>● *Balloon*</li> </ul>
<b>Week 7</b>	<ul style="list-style-type: none"> <li>● *Prism*</li> <li>● Filter paper or *coffee filters*</li> <li>● *Water-based markers*</li> <li>● *Pipettes*</li> <li>● *Small containers*</li> <li>● Water</li> <li>● Pencils</li> <li>● Metal objects like nails or scissors</li> <li>● *Safety gloves* (optional)</li> <li>● Softer sedimentary rocks, like *limestone*</li> <li>● *Chalk*</li> <li>● Nickel coins</li> <li>● Harder *igneous rocks*, like obsidian or granite</li> <li>● *Clay*</li> <li>● *Mirror* or piece of jewelry</li> <li>● *Aluminum foil*</li> <li>● *Wax paper*</li> <li>● *Plastic wrap*</li> </ul>	<ul style="list-style-type: none"> <li>● Construction paper</li> <li>● Cardboard boxes (unused pizza boxes, crackers boxes, cereal boxes, etc.)</li> <li>● Rulers</li> <li>● Utility knives</li> <li>● Liquid glue</li> <li>● Shipping or *electrical tape*</li> <li>● Black paper</li> <li>● Wooden skewers or pencils</li> <li>● Items to cook or heat up (s'mores, nachos, grilled cheese, crayons, etc.)</li> <li>● *Magnets*</li> <li>● Keys, scissors, seashells, pencils, nickels, *marbles*, paper clips, and/or other magnetic and nonmagnetic materials</li> <li>● *Parchment paper*</li> </ul>
<b>Week 8</b>	<ul style="list-style-type: none"> <li>● *Batteries*</li> <li>● *Wire*</li> <li>● *Tape (electrical)*</li> <li>● Wire strippers</li> <li>● *Lamp holder*</li> <li>● *Lamp*</li> <li>● *Popsicle stick*</li> <li>● Paper clip</li> <li>● Salt (¼ cup)</li> <li>● Distilled water (1 gallon)</li> <li>● Other classroom materials to test (optional)</li> <li>● Water</li> <li>● Metal bowl</li> <li>● Plastic bowl</li> <li>● Ceramic bowl</li> <li>● *Hot plate*</li> <li>● Metal spoon</li> <li>● *Plastic spoon*</li> <li>● Wood spoon</li> <li>● Butter (3 Tbsp)</li> </ul>	<ul style="list-style-type: none"> <li>● *Cups*</li> <li>● Epsom salt (2 cups)</li> <li>● Table salt (2 cups)</li> <li>● Sugar (2 cups)</li> <li>● Baking soda (4 cups)</li> <li>● Teaspoons</li> <li>● Flour (2 cups)</li> <li>● Cornstarch (2 cups)</li> <li>● Powdered sugar (2 cups)</li> <li>● Baby powder (2 cups)</li> <li>● *Small containers*</li> <li>● Small dropper bottles</li> <li>● Vinegar</li> <li>● Iodine solution</li> <li>● Toothpicks*</li> <li>● *Wax paper*</li> <li>● *Aluminum foil*</li> <li>● *Tweezers* or tongs</li> <li>● *Small candle*</li> <li>● Matches</li> <li>● *Mini bulb*</li> <li>● *LED bulb*</li> </ul>
<b>Week 9</b>	<ul style="list-style-type: none"> <li>● Cornstarch (2 boxes)</li> </ul>	<ul style="list-style-type: none"> <li>● *Gloves*</li> </ul>

	<ul style="list-style-type: none"> <li>● Water</li> <li>● Glue</li> <li>● *Liquid dish soap*</li> <li>● *Borax*</li> <li>● *Food coloring*</li> <li>● *Tarp* or other covering</li> <li>● Aprons or old T-shirts</li> </ul>	<ul style="list-style-type: none"> <li>● *Measuring cups*</li> <li>● *Measuring spoons*</li> <li>● *Plastic cups*</li> <li>● *Plastic spoons*</li> <li>● *Plastic containers with airtight lids*</li> <li>● Meterstick</li> </ul>
<b>Week 10</b>	<ul style="list-style-type: none"> <li>● Yarn or *string*</li> <li>● Colored pencils, *markers*, and/or crayons</li> <li>● *Skulls* or sets of teeth of various animals</li> </ul>	<ul style="list-style-type: none"> <li>● Posters, crafting and decorating materials (*craft sticks*)</li> <li>● Paper (optional)</li> </ul>
<b>Week 11</b>	<ul style="list-style-type: none"> <li>● *Tray* (optional)</li> <li>● Peach and/or apple slices (optional)</li> <li>● *Toothpicks* (optional)</li> <li>● Chart paper (optional)</li> <li>● Plant with large leave</li> <li>● *Aluminum foil*</li> </ul>	<ul style="list-style-type: none"> <li>● Highlighters</li> <li>● *Pipe cleaners* or pieces of yarn or *string*</li> <li>● Colored *beads* (green, blue, orange, yellow, pink, white, and/or other colors)</li> </ul>
<b>Week 12</b>	<ul style="list-style-type: none"> <li>● Colored pencils or crayons</li> </ul>	
<b>Week 13</b>	<ul style="list-style-type: none"> <li>● Research materials (online resources, library books, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>● List of invasive species for students to choose from</li> </ul>
<b>Week 14</b>	<ul style="list-style-type: none"> <li>● Paper</li> <li>● Chart paper (optional)</li> <li>● Red colored pencils or *marker*</li> <li>● Four signs</li> <li>● *Ping-pong balls*, *golf balls*, or cut-out paper circles</li> <li>● *Flashlight*</li> <li>● Shoeboxes or other small boxes</li> </ul>	<ul style="list-style-type: none"> <li>● Diorama supplies: paint, glue, paper, colored pencils, *markers*, crayons, scissors, magazines, *clay*, *pipe cleaners*, *craft sticks*, *string*, tape, natural objects like rocks and sand, other crafting materials</li> <li>● *Index cards*</li> </ul>
<b>Week 15</b>	<ul style="list-style-type: none"> <li>● Globe or picture of the Earth</li> <li>● *Cups*</li> <li>● Sand (32 cups)</li> <li>● Water bottles</li> <li>● Water</li> <li>● Vinegar (8 cups)</li> <li>● Distilled water (8 cups)</li> </ul>	<ul style="list-style-type: none"> <li>● Medium-sized eggshell pieces</li> <li>● Small green leaves</li> <li>● Paper clips</li> <li>● Small- or medium-sized glass jars</li> <li>● Masking tape</li> <li>● Pens</li> </ul>
<b>Week 16</b>	<ul style="list-style-type: none"> <li>● Chart paper (optional)</li> <li>● Large sheets of white construction paper</li> <li>● Cardstock</li> <li>● Crayons, *markers*, or paint</li> <li>● Tape</li> </ul>	<ul style="list-style-type: none"> <li>● Glue (optional)</li> <li>● Crafting materials to make trees, flowers, *craft sticks*, etc.</li> <li>● *Toothpicks*</li> <li>● *Modeling clay*</li> </ul>
<b>Week 17</b>	<ul style="list-style-type: none"> <li>● Paper</li> <li>● Research materials (online resources, library books, etc.)</li> </ul>	
<b>Week 18</b>	<ul style="list-style-type: none"> <li>● Chart paper (optional)</li> <li>● Research materials (books, online resources, etc.)</li> </ul>	

	<ul style="list-style-type: none"> <li>● Posters (optional)</li> </ul>
<p><b>Week 19</b></p>	<ul style="list-style-type: none"> <li>● Chart paper</li> <li>● Research materials (books, online resources, etc.)</li> <li>● Suggested engineering project items: cardboard, PVC pipes, tape, *aluminum foil*, *plastic wrap*, *cups*, *straws*, paper clips, wooden dowels, *cotton balls*, plastic sheets, clothespins, *wire*, *string*, screen, fabric, springs</li> </ul> <ul style="list-style-type: none"> <li>● Large containers (8, capable of holding more than four liters of water)</li> <li>● *Gravel* (8 cups)</li> <li>● Water</li> </ul>
<p><b>Week 20</b></p>	<ul style="list-style-type: none"> <li>● Table salt</li> <li>● Food-grade sea salt (same size, texture, and color as the table salt)</li> <li>● <b>“Polluted” Water:</b> 1 cup water, 1 spoonful of soil (a mixture of fine and gritty particles is best), 1 spoonful of oil, 1-3 drops of yellow and/or green food dye, if desired</li> <li>● <b>Filter Materials:</b> *large funnels*; small funnels; *empty cups*; *craft sticks*; *coffee filters*; *mesh strainers with small holes*; *mesh strainers with large holes*; *cheesecloth* (or similar); *wax paper*; *balloons*; small river rocks or *gravel* (enough to fill the empty cup halfway); masking tape; 1/8 inch-thick dowels, 15 cm long</li> </ul> <ul style="list-style-type: none"> <li>● Small objects to test density (*beads*, buttons, etc.)</li> <li>● *Tweezers*</li> <li>● *Cups/containers*</li> <li>● *Wax paper*</li> <li>● *Trays*</li> <li>● <b>Various salts:</b> Sodium chloride: table salt, Magnesium chloride: a dietary supplement that comes in the form of tablets (you can use ice melt), Calcium chloride: an additive used in pickling (you can use ice melt), Potassium chloride: the main ingredient in salt substitutes and “no-salt” products (you can use water softener salt)</li> </ul>
<p><b>Week 21</b></p>	<ul style="list-style-type: none"> <li>● Bucket or aquarium filled with five gallons (about 19 liters) of water</li> <li>● *Blue food coloring* (optional)</li> <li>● Large container*</li> <li>● *Dropper*</li> <li>● Watch glass or *petri dish*</li> <li>● *Clear cups*</li> <li>● Sand and/or *gravel*</li> <li>● Water</li> <li>● *Markers*</li> </ul> <ul style="list-style-type: none"> <li>● *Pipettes*</li> <li>● *Red food coloring*</li> <li>● Large bowls</li> <li>● Water</li> <li>● Grass (4 cups)</li> <li>● Dirt (4 cups)</li> <li>● Small bowls</li> <li>● *Plastic wrap*</li> <li>● *Rubber bands*</li> <li>● Coins or *washers*</li> </ul>
<p><b>Week 22</b></p>	<ul style="list-style-type: none"> <li>● Chart paper (optional)</li> <li>● Vegetable oil</li> <li>● Cocoa powder</li> <li>● *Blue food coloring* (optional)</li> <li>● *Plastic spoons*</li> <li>● *Plastic cups*</li> <li>● *Dish soap*</li> </ul> <ul style="list-style-type: none"> <li>● *Sponges*</li> <li>● *Jumbo cotton balls*</li> <li>● Clear containers</li> <li>● Paper or *plastic bowls* or *beakers*</li> <li>● *Bird feathers*</li> <li>● Large, old shirts</li> <li>● *Tarps* or plastic tablecloths</li> </ul>

<p><b>Week 23</b></p>	<ul style="list-style-type: none"> <li>● Map or graph of the watershed the students live in</li> <li>● Assortment of empty *containers* of various sizes, preferably with *lids*</li> <li>● Large, light-colored plastic tablecloths or *garbage bags*</li> </ul>	<ul style="list-style-type: none"> <li>● *Large tarp*</li> <li>● Water</li> <li>● *Spray bottle*</li> <li>● *Food coloring*</li> <li>● Blue butcher paper (3 ft.)</li> </ul>
<p><b>Week 24</b></p>	<ul style="list-style-type: none"> <li>● Large container for collection of landfill items (1)</li> <li>● Chart paper (optional)</li> </ul>	
<p><b>Week 25</b></p>	<ul style="list-style-type: none"> <li>● Items to demonstrate gravity, such as a ball, book, pen, etc.</li> <li>● Book</li> <li>● Pen</li> </ul>	<ul style="list-style-type: none"> <li>● Paper clip</li> <li>● Crumpled paper ball</li> <li>● *Stopwatch*</li> </ul>
<p><b>Week 26</b></p>	<ul style="list-style-type: none"> <li>● Red colored pencils</li> <li>● Blue colored pencils</li> <li>● *Embroidery hoops*</li> <li>● Support for the edges of the hoops (books work well)</li> <li>● *Plastic wrap*</li> <li>● *Small marbles*</li> </ul>	<ul style="list-style-type: none"> <li>● *Two-inch styrofoam balls*</li> <li>● *Clay*</li> <li>● Crackers</li> <li>● Pennies or *washers*</li> <li>● *Eyedroppers*</li> <li>● Water</li> </ul>
<p><b>Week 27</b></p>	<ul style="list-style-type: none"> <li>● Computers or books</li> <li>● Recyclable materials that can be used to make parachutes, such as plastic bags, coffee filters, tissue paper, yarn or string, rubber bands, empty soda bottles, tissues, tape, straws, paper, etc.</li> </ul>	<ul style="list-style-type: none"> <li>● *Toy cars*</li> <li>● Materials that students can use to improve their parachute designs</li> </ul>
<p><b>Week 28</b></p>	<ul style="list-style-type: none"> <li>● Small sticky notes</li> <li>● *Solar glasses*</li> <li>● *Flashlights*</li> </ul>	
<p><b>Week 29</b></p>	<ul style="list-style-type: none"> <li>● Books</li> <li>● Pencils</li> <li>● Large sheets of white paper</li> <li>● Colored pencils</li> <li>● Graph paper</li> <li>● Sticks or pencils</li> </ul>	<ul style="list-style-type: none"> <li>● Metersticks or yardsticks</li> <li>● *Miniature flashlights*</li> <li>● Poster paper</li> <li>● *Air-dry clay*</li> <li>● Paint (optional)</li> </ul>
<p><b>Week 30</b></p>	<ul style="list-style-type: none"> <li>● Toy top or *fidget spinner*</li> <li>● *Two-inch styrofoam balls*</li> <li>● *String*</li> </ul>	<ul style="list-style-type: none"> <li>● Pencils</li> <li>● Tape</li> </ul>
<p><b>Week 31</b></p>	<ul style="list-style-type: none"> <li>● *1-2 tarps*</li> <li>● Dishpan tubs or *aluminum pans*</li> <li>● Flour (8 five-lb. bags)</li> <li>● Cocoa powder (8 Tbsp)</li> <li>● *Marbles*</li> <li>● *Ping-pong balls*</li> </ul>	<ul style="list-style-type: none"> <li>● *Golf balls*</li> <li>● *Markers*</li> <li>● *Lamp without a lampshade*</li> <li>● Sharpened pencils</li> <li>● *Styrofoam balls*</li> </ul>

**Week 32**

- Pencils or pens
- \*Flashlights\*
- Foam balls (with three rings drawn on them)
- \*Sheets of blank label stickers\*