



Course	Materials
<b>Agriscience Foundations I v20</b>	<p><i>Safety Lab</i></p> <ul style="list-style-type: none"><li>• One aluminum tin (pie size or larger) or rectangle metal cake pan</li><li>• Soil (to fill up one quarter of the aluminum tin above)</li><li>• Water</li><li>• 50 mL cooking oil (such as vegetable oil or olive oil)</li><li>• Oil clean-up materials (selected examples include spoons, craft sticks, plastic wrap, cotton balls or squares, paper, pieces of sponge, coffee filters, liquid soap or detergent)</li></ul> <p><i>Cellular Systems Lab</i></p> <ul style="list-style-type: none"><li>• Two matching containers (clear glass or plastic bottles or cups such as soda bottles or mason jars)</li><li>• Gravel or small rocks</li><li>• Soil (potting soil or topsoil) and sand (if you choose the substrate variable)</li><li>• One bag of nine-bean soup mix from a grocery store</li><li>• Water and measuring cup</li><li>• Plastic wrap and aluminum foil (if you choose the light variable)</li><li>• Rubber bands</li><li>• Ruler</li></ul> <p><i>Animal and Plant Systems Lab</i></p> <ul style="list-style-type: none"><li>• Sharp scissors</li><li>• Colored pencils</li><li>• Newspaper, tray, or other protective covering for work area</li><li>• Gloves (optional)</li><li>• A cut of raw meat, with bone in and skin on if possible, from the animal you chose in Part 1. This may be purchased from a grocery store. Examples you may choose:<ul style="list-style-type: none"><li>○ Raw chicken wing (with upper wing, lower wing, and wingtip joined)</li><li>○ Chicken or turkey leg with skin on</li><li>○ Chicken or turkey thigh with bone in, skin on</li><li>○ Pork spareribs</li><li>○ Pork shanks with bone in</li></ul></li></ul> <p><i>Environmental Resources Lab</i></p> <ul style="list-style-type: none"><li>• Distilled water</li><li>• Metric ruler</li><li>• Small zipper storage bag</li><li>• Soil from the yard, garden, or other local source</li><li>• Jar with tightly fitting lid (tall and skinny would be best)</li><li>• Small digging tool</li><li>• pH strips (available at hardware and pool supply stores) <b>or</b> vinegar and baking soda</li></ul> <p><i>Agriscience Data Lab</i></p> <ul style="list-style-type: none"><li>• Choice of materials vary depending on choice of student project</li></ul>



## Student Provided Lab & Other Materials 6-12

<b>Anatomy and Physiology v13.2</b>	Books of similar size (2), Chicken bone document, Chicken wing raw (upper and lower wingtip joined together), Clock or timer with second hand, Cups, Dropper or teaspoon, Food coloring bottles (2) red and green (optional), Gloves (optional), Glue or tape, Jump rope (optional), Liquids for taste testing (5), Marker and tape to label the blood sample and serums, Masking tap (or small stickers), Milk (one cup), Newspaper, Partner (family member or friend), Pen or pencil, Scissors (sharp), Stopwatch or watch, Sterile swabs, Toothpicks, Vinegar, Water
<b>AP Biology v20</b>	<p><i>Recommended</i></p> <ul style="list-style-type: none"><li>• non-local location for assignment back-up (e.g. cloud-based folder, email, etc.)</li><li>• *AP Classroom: <a href="https://apcentral.collegeboard.org/">https://apcentral.collegeboard.org/</a></li></ul> <p><i>Required Lab Materials</i></p> <p>02.06 Tonicity and Osmoregulation</p> <ul style="list-style-type: none"><li>• 4 large plastic cups or bowls</li><li>• 8 small cups or bowls</li><li>• 2 thin non-durable zip-lock plastic sandwich bags (the generic version work best)</li><li>• Measuring cups and spoons</li><li>• Iodine</li><li>• ¼ cup cornstarch or small potato</li><li>• Strainer (optional)</li><li>• Paper towels</li><li>• 100 mL distilled water</li><li>• 60 g or 5 tbs sugar (sucrose)</li><li>• 1 potato</li><li>• 1 of the following: sweet potato, pear, or apple</li><li>• Aluminum foil or plastic wrap</li><li>• Knife</li><li>• Metric ruler</li></ul> <p>02.07 Mechanism of Transport</p> <ul style="list-style-type: none"><li>• Small potted plants with lots of leaves and no/few flowers</li><li>• 1-gallon plastic food storage bags w/out zip-lock</li><li>• Fan, heat lamp, salt (if testing environmental factors)</li><li>• String</li><li>• Water</li></ul> <p>03.04 Photosynthesis</p> <ul style="list-style-type: none"><li>• Baking soda (sodium bicarbonate)</li><li>• Tap water</li><li>• Liquid dish soap</li><li>• Glass cup or bowl</li><li>• Hole puncher or plastic drinking straw</li><li>• Leaf from a living plant (flexible, without a waxy covering—such as fresh spinach)</li></ul>



- Plastic syringe (10 mL or larger, without needle—can be purchased at a drug store)
- Timer or clock with a second hand
- Lamp (with 60-watt or higher light bulb)
- Metric ruler

04.06 Regulation of Cell Cycle

- Pick one of the following: potatoes, kiwi, peaches, cherries, apricots, bananas, watermelon, or pineapple
- Baking soda (if testing pH)
- Water (and a way to warm it if testing temperature)
- Ice cubes (if testing temperature)
- Vinegar (if testing pH)
- Hydrogen peroxide (can be purchased at a grocery store)
- Glasses, cups, small bowls, or jars
- Something to crush fruit or veggie
- Large containers to hold hot and cold water (if testing temperature)
- Measuring cups
- Marker, paper, and tape for labeling
- Timer

Segment One Collaboration (Optional)

- Baking soda (sodium bicarbonate,  $\text{NaHCO}_3$ )
- Tap water
- Liquid dish soap
- Glass cup or bowl
- Hole puncher or plastic drinking straw
- Leaf from a living plant (flexible, without a waxy covering—such as fresh spinach)
- Plastic syringe (10 mL or larger, without needle—can be purchased at a drug store)
- Timer or clock with a second hand
- Lamp (with 60-watt or higher light bulb)
- Metric ruler

05.01 Meiosis

- Clay
- Pipe cleaners
- Candy
- Beads
- String
- Any other objects that will work

Segment One Collaboration (Optional)

- 125 light-colored beans and 50 dark-colored beans (if you do not have beans, look for alternatives such as two colors of candies)
- 1 bag



# Student Provided Lab & Other Materials

## 6-12

	<ul style="list-style-type: none"> <li>• Calculator</li> <li>• Graph paper</li> </ul>
<b>AP Environmental Science v20</b>	<p><i>Required Course Supplies</i></p> <ul style="list-style-type: none"> <li>• Calculator (four function, scientific, graphing)</li> </ul> <p><i>Required Lab Supplies</i></p> <p>01.05 Trophic Levels and Energy Flow</p> <ul style="list-style-type: none"> <li>• calculator</li> <li>• paper</li> <li>• pencil/pen</li> <li>• digital charts or drawing tools (found in MS Word)</li> </ul> <p>03.02 Soil and Watersheds</p> <ul style="list-style-type: none"> <li>• calculator</li> <li>• paper</li> <li>• pencil/pen</li> <li>• digital charts or drawing tools (found in MS Word)</li> </ul> <p>04.05 Ecological Footprints</p> <ul style="list-style-type: none"> <li>• 6 plastic cups</li> <li>• 70 navy beans</li> <li>• 40 kidney beans</li> <li>• 40 black beans</li> <li>• 100 black-eyed peas</li> <li>• marker for labeling cups</li> </ul> <p>05.06 Energy Conservation</p> <ul style="list-style-type: none"> <li>• a calculator</li> </ul> <p><i>Optional Enrichment Activity Supplies</i></p> <p>01.03 Cycles – Cloud Lab</p> <ul style="list-style-type: none"> <li>• one two-liter plastic soda bottle that is "clear," so you can see through it (be sure the bottle has a cap)</li> <li>• book of matches (no lighters, please—they don't make smoke when extinguished)</li> <li>• 250 mL beaker (use a 2–4 cup clear measuring cup if you don't have beakers)</li> <li>• hot water</li> <li>• ice water (put some ice cubes in a container of water)</li> </ul> <p>02.02 Ecological Relationships – Island Biogeography</p> <ul style="list-style-type: none"> <li>• paper</li> <li>• colored pencils, crayons, or pens (suggested colors: brown, red, green, yellow, blue)</li> <li>• 100 small beans (any type)</li> </ul> <p>02.05 Population Species – Cemetery Lab</p> <ul style="list-style-type: none"> <li>• a cemetery (or access to cemetery records)</li> <li>• a calculator</li> <li>• a pencil or pen</li> <li>• paper</li> </ul> <p>03.01 Plate Tectonics – Mechanisms of Movement</p> <ul style="list-style-type: none"> <li>• water</li> <li>• pan</li> <li>• raw egg</li> <li>• cracking device such as a teaspoon</li> </ul>



- paper towels or newspaper
- 03.02 Soil and Watersheds – Soil Properties
  - soil from the area of your home
  - coffee filters
  - clear measuring cup
  - cornstarch
  - iodine solution from the drug store
  - shovel
  - NPK kit from your local hardware store, garden center, or home improvement store
- 03.04 Solar Radiation and Seasons – Solar Intensity
  - a thermometer or color-changing temperature strip
  - a protractor (or print-out of a protractor)
  - a large flashlight or table lamp (cell phone flashlights or energy-efficient bulbs will not work for this activity.)
- 03.05 Weather and Climate – Climatology Lab
  - graph paper
  - pencil or pen
- 04.04 Mining and Urbanization – Cookie Mining Lab
  - chocolate chip cookie
  - toothpicks
  - paper clips
  - graph paper
  - stopwatch or clock with second hand
- 04.06 Sustainability – Carbon Sequestering in Trees
  - pick one of the following trees: oak, hickory, maple, or Southern pine
  - a tape measure
  - a calculator
  - a stick
  - piece of paper
  - pencil or pen
- 04.07 Pest Management – Pest Management Lab
  - paper towel or newspaper
  - magnifying glass
  - any four of the following: flour, sugar, oatmeal, rice, cornmeal, bag of beans
- 06.04 Acid Deposition – The Effects of Acid Rain
  - five plastic cups
  - tap water (pH 7.5)
  - distilled water (pH 5)
  - vinegar (pH 2.4)
  - lemon juice (pH 2)
  - three pieces of chalk
  - small nail
  - three paper clips
  - an egg (only eggshells needed)
  - two green leaves



## Student Provided Lab & Other Materials 6-12

	<p>07.02 Impacts on Aquatic Ecosystems – Marine Clean-Up</p> <ul style="list-style-type: none"> <li>• one aluminum tin (pie size or larger) or rectangle metal cake pan</li> <li>• stones, sand, or gravel to fill up about one quarter of the pan (this will be your beach)</li> <li>• two bird feathers (can be found in craft or hobby materials)</li> <li>• water</li> <li>• 50 mL cooking oil (such as vegetable oil or olive oil)</li> </ul> <p>clean-up materials: sample materials include spoons, craft sticks, plastic wrap, cotton balls or squares, paper, pieces of sponge, coffee filters, and liquid soap or detergent</p>
<p><b>Biology v20</b></p>	<p><i>Required</i></p> <ul style="list-style-type: none"> <li>• Materials for student designed laboratory set-up in lesson 02.01 Properties of Water (materials will vary)</li> <li>• blindfold</li> <li>• paper towels</li> <li>• sink</li> <li>• soap</li> <li>• timer or watch that counts seconds</li> <li>• washable paint or food coloring</li> </ul> <p><i>Optional</i></p> <ul style="list-style-type: none"> <li>• jar with a lid (like a mayonnaise jar)</li> <li>• newspaper to protect the work surface</li> <li>• raw egg</li> <li>• ruler</li> <li>• string or thread or yarn</li> <li>• syrup</li> <li>• tap water</li> </ul> <p>white vinegar</p>
<p><b>Biology 1 for Credit Recovery</b></p>	<p>Raw egg, String, thread, or yarn, Ruler, White vinegar, Tap water, Jar with a lid (like a mayonnaise jar), 5 different colors of paper- cut into 1 cm × 1 cm squares (at least 100 squares of each color), Multi-colored fabric or newspaper, approximately 1 meter × 1 meter, One or two partners (friends or family), Timer or watch that counts seconds, Sink, Blindfold, Washable paint or food coloring, Paper Towels, Soap, Newspaper to protect the work surface (optional)</p>



## Student Provided Lab & Other Materials 6-12

### Chemistry v18

#### *Required*

- Entire course: scientific or graphing calculator
- 03.05 Molecular Structure: deionized (distilled) water, rubbing alcohol, vegetable oil, iodine, sodium chloride (salt), acetic acid (vinegar), test tubes or clear plastic cups, tablespoon and teaspoon, stirring sticks, permanent marker for labeling
- 05.07 Honors Stoichiometry: water, sugar, lemon juice
- 07.04 Honors Calorimetry: thermometer, two foam cups, measuring cup from your kitchen, hot water, and one liquid selected from the list below and placed in your refrigerator for one or more hours before you begin your activity. Liquid options: thermometer, two foam cups, measuring cup from your kitchen, hot water, and one liquid (grape juice, whole milk, orange juice, or tomato juice)
- 08.03 Solutions Lab: 13 plastic cups (12 oz), permanent marker for labeling, measuring stick, tablespoon and teaspoon, kitchen scale that measures in grams (optional), water, source of heat, granulated sugar, sugar cubes, spoon for stirring, three to four packages of powdered drink mix (6.6 ounces per package)

#### *Optional*

- 01.05 Changes in Matter: ice cubes (at least one cupful), one two- to three-quart saucepan, a kitchen thermometer (that measures temperatures up to at least 105 °C, or around 215 °F), a stove top
- 01.06 Pure Substances and Mixtures: candy with a colored coating, like Skittles® or M&Ms® (four different colors), rubbing alcohol or isopropyl alcohol, coffee filters (two), tall glasses or plastic cups (two), pencil, ruler, tape, foil or paper plate, table salt, water, toothpicks or cotton swabs (four), measuring cups or spoons, clean pitcher or two-liter bottle
- 01.07 Laboratory Techniques: apple juice, orange juice, or milk; any type of vinegar, cooking wine, saltwater, thermometer, pots, heat source
- 02.06 Periodic Table: empty container, 100 random pennies, kitchen scale
- 03.03 Covalent Bonding: multicolored gumdrops, marshmallows, soft candy, fruit, aluminum foil balled up, foam balls, cotton balls, play dough, or cereal; Q-tips, hair pins, toothpicks, paperclips, or other stick-like objects; paper and pencil
- 04.02 Synthesis and Decomposition Reactions: assorted colors of building blocks (such as Legos®)
- 04.04 Combustion and Redox Reactions: 20 dull pennies, 1/4 cup white vinegar (diluted acetic acid), one teaspoon table salt (NaCl), 1 shallow, clear glass or plastic bowl (not metal), one plastic spoon or fork, one or two clean steel screws or nails (not galvanized) or plain metal paper clips, water, measuring spoons, paper towels



## Student Provided Lab & Other Materials 6-12

	<ul style="list-style-type: none"> <li>• 04.05 Honors Oxidation Reduction: lemon, strip of copper metal (a penny will work as well), strip of zinc metal (a nickel will work as well), two cables with alligator clips, knife (used with permission from a guardian), a clock or other device with an LCD display</li> <li>• 04.07 Honors Radioactive Decay: 200 M&amp;M® candies, pennies, or other small candies/items with two distinct sides, shoebox or another small box with a lid</li> <li>• 05.05 Limiting Reactant: two boxes/packages of the same cookie mix, measuring cups and spoons, mixing spoons and bowls, two baking pans of the same size and depth, additional ingredients requested by cookie mix recipe</li> <li>• 05.06 Percent Yield: heat source (a stove or hot plate will work best), baking soda, kitchen scale, stirring spoon, cooking pot</li> <li>• 06.01 Kinetic Molecular Theory: friend or family member, scented candle, matches or lighter, spray air freshener, stopwatch or timer</li> <li>• 06.02 Phase Changes: household or crafting items</li> <li>• 06.03 Gas Laws: 3-inch × 5-inch card, marker, pencil, one empty soda can, tongs, water, one two- to three-quart saucepan</li> <li>• 07.01 Endothermic and Exothermic: bowl of cold water, second bowl of very warm (but still safe to the touch) water, third bowl of room-temperature water</li> <li>• 07.03 Honors Entropy: one piece of steel wool, vinegar, baking soda, thermometer (if you have one) or use your hand to sense temperature change, glass jar with lid or disposable plastic cups with lid/plastic wrap, newspaper, two disposable plastic spoons, measuring cup</li> <li>• 08.01 Properties of Water: toothpick, cup, water, small bowl, soap, staple or paperclip</li> <li>• 08.04 Acids and Bases: red cabbage, rubbing alcohol, cheesecloth, paper towels, 10 clear plastic cups, labeling pen or marker, two small bowls, tablespoon, three tablespoons of: distilled water, lemon juice, cola, corn oil, shampoo, vinegar, dishwashing liquid</li> </ul>
<b>Chemistry I for Credit Recovery</b>	<ul style="list-style-type: none"> <li>• Multicolored gumdrops, marshmallows, soft candy, fruit, Styrofoam balls, Play-Doh, or other items to represent atoms in each model</li> <li>• Toothpicks, paper clips, or other stick-like objects to represent the covalent bonds in each model</li> <li>• Alternative: Photo-editing program, digital imaging, or presentation programs to create molecular models</li> </ul>
<b>Chinese I v20</b>	<ul style="list-style-type: none"> <li>• Microphone and recording device for computer</li> </ul>
<b>Chinese II v20</b>	<ul style="list-style-type: none"> <li>• Microphone and recording device for computer</li> </ul>
<b>Chinese III v20</b>	<ul style="list-style-type: none"> <li>• Microphone and recording device for computer</li> </ul>





## Student Provided Lab & Other Materials

### 6-12

#### Earth Space Science v19

#### *Required Lab Materials*

- 01.06 Matter and Energy Lab: Lesson Demonstrations: “The Iced Tea Debate” and “The Salty Soup.” No additional materials needed.
- 02.04 Meteorology Lab: Weather Maps Symbols Key (see lesson), Graphing software or application, Graphing tutorial (optional- see lesson).
- 03.01 Surface Water Lab: one sheet of plain white paper several sheets of old newspaper, or wax paper if available one water-based marker (Note: do not use permanent marker) one spray bottle containing water (place on “mist” setting) digital camera, if available
- 03.02 Groundwater Lab: water, a clean penny, food coloring, vegetable oil, clear plastic cups, dropper or pipette, ice cube, black pepper, a bowl, dish soap, sponge or cloth, a heating source (sunlight, lamp, etc.) or a cooling source (refrigerator), one balloon, measuring tape or string and a ruler
- 04.04 Origin and Expansion of the Universe Virtual Lab: Watch the virtual lab demonstration video within the lesson. No additional materials are needed.
- 05.03 Rocks and Minerals as Resources: chocolate chip cookie, toothpicks (flat and round), paperclips, graph paper, stopwatch, timer or clock with second hand
- 07.02 Ocean Circulation Virtual Lab: This lab will be done through a virtual lab scenario. Tracking data is provided through this online format.
- 08.02 Forces in Our Solar System Virtual Lab: Gravity virtual lab activity. No additional materials needed.
- 08.06 The Earth-Sun-Moon System Lab: One Styrofoam ball or white table-tennis ball, One dowel rod, pencil, or another long holder for the sphere, Tape, if needed, Darkened room, preferably without windows, One lamp or source of light
- 09.03 Mechanisms of Movement Lab: Watch the virtual lab demonstration video within the lesson. Optional: to perform the lab in the video demonstration, the materials are needed: water, pan, raw egg, cracking device such as a teaspoon, paper towels or newspaper
- 09.05 Geologic Events Lab: Earthquake Epicenter lab within the lesson. No additional materials necessary.

#### *Optional Lab Materials*

- 02.01 Cloud Lab: one two-liter plastic bottle that is "clear," so you can see through it (be sure the bottle has a tight-fitting cap), warm water, isopropyl alcohol (rubbing alcohol), bike/ball pump with needle, rubber stopper, safety glasses, pressure sensor (optional)
- 02.04 Creating Fronts Lab: identical baby food jars (you do not need lids), heavy paper coated in plastic (you can also use an index card), blue food coloring, red food coloring, warm tap water, cold tap water, two measuring cups with pour spouts, spoon, paper towels, basin



## Student Provided Lab & Other Materials 6-12

	<ul style="list-style-type: none"> <li>• 03.02 How to Eat and Aquifer Lab: Blue or red food coloring, Several scoops of vanilla ice cream, Two glasses of clear soda such as Sprite™ or 7UP™, Small bits of food to represent gravel and sand (e.g., chocolate chips, crushed cookies or ice, cereal, gummy bears), Sprinkles or sugars in various colors, Drinking straw, Clear plastic cup, Ice cream scoop, Spoon</li> <li>• 03.03 Water Quality Lab: This lab will be done through a virtual lab scenario. Water samples and equipment will be provided through this online format.</li> <li>• 03.04 Toothbrush Lab: plastic bucket or bowl, toothbrush, timer, stopwatch or clock, measuring cup</li> <li>• 05.04 Soil Composition Lab: water, metric ruler, small zipper storage bag, dirt from the yard or garden, jar with tightly fitting lid (tall and skinny would be best), a small digging tool</li> <li>• 07.01 Ocean Currents in a Jar Lab: two baby food jars (minimum), food coloring (four colors), index cards, hot/cold water, salt, spoon, a partner at your house</li> <li>• 07.02 El Niño Lab: Large rectangle plastic container, Water, 1 cup mineral oil, Mixing Dish, Food coloring, Hair dryer, Funnel, 2 tablespoons red oil-based paint</li> <li>• 08.04 Make Your Own Comet Lab: Five pounds of dry ice, finely crushed, Insulated container to hold the dry ice, Thick gloves, Rubber mallet, Safety goggles, Plastic bowl, Large towel to protect your work area, Several 12-gallon garbage bags, Flat tray, Liter of water, 2 cups of dirt, 1 tablespoon of starch, 1 tablespoon of dark syrup or soda, 1 tablespoon of vinegar, 1 tablespoon of rubbing alcohol, Hairdryer, Flashlight, Adult supervision</li> <li>• 08.04 Star Chart Honors Lab: Star chart for the current month, Star chart reading tutorial from honors lesson (Star Chart tab)</li> <li>• 09.01 Shape of the Earth Lab: sheet of paper, pencil, tape</li> </ul>
<b>English I/Honors v15</b>	Microphone and recording device for computer
<b>English II/Honors v14, v14.2, v14.3</b>	Microphone and recording device for computer
<b>English III/Honors v14, v14.2, v14.3</b>	Microphone and recording device for computer
<b>English IV v19</b>	Microphone and recording device for computer
<b>Fitness Lifestyle Design v17</b>	Fitness Assessment Supplies: Yard stick or tape measure, Stopwatch or a watch that counts seconds, Pieces of paper, Tape, Bathroom scale, Working speakers for course videos



## Student Provided Lab & Other Materials 6-12

<b>French I v18</b>	Microphone and recording device for computer
<b>French II v18</b>	Microphone and recording device for computer
<b>Geometry for Credit Recovery</b>	A word processing program (Word Pad is sufficient), printer paper, 1 two inch, three-ring binder to serve as your Geometry notebook, 1 set of subject separators/tabs for your notebook, one for each module, 1 blank disk for saving your work or you can create a folder on your hard drive to save your assignments, Protractor, Compass, A tape measure for some project type assignments, Tissue paper or wax paper for some activities, Index Cards, Graph paper (optional)
<b>Geometry v19</b>	<ul style="list-style-type: none"> <li>• 3 ring-binder (1 two inch) and subject separators for your notebook (one for each module)</li> <li>• Compass</li> <li>• Graph paper (optional)</li> <li>• Index cards</li> <li>• Printer paper</li> <li>• Protractor</li> <li>• Tape measure</li> <li>• Tissue paper (or wax paper)</li> <li>• Word processing program</li> </ul>
<b>HOPE v14</b>	Fitness tracker (optional), Yard stick or tape measure, Stopwatch or a watch that counts seconds, Pieces of paper, Tape, Bathroom scale, Camera to record video
<b>Liberal Arts Math 1 v16</b>	Scientific calculator, Graph paper, Compass, Straightedge or ruler
<b>Marine Science v15</b>	<p>01.02 Ocean Exploration</p> <ul style="list-style-type: none"> <li>• 2-liter bottle with cap (empty)</li> <li>• Cartesian diver. There are a few easy ways to make one:             <ul style="list-style-type: none"> <li>○ Option 1: ketchup or soy sauce condiment packet</li> <li>○ Option 2: medicine dropper</li> <li>○ Option 3: pen cap and modeling clay or silly putty</li> </ul> </li> <li>• Ruler or tape measure</li> <li>• Small bowl</li> <li>• Water</li> </ul> <p>03.04 Honors Sound in the Sea</p> <ul style="list-style-type: none"> <li>• Coffee (instant coffee)</li> <li>• Mugs (2, ceramic works best)</li> <li>• Plastic straws</li> <li>• Teaspoons (2, metal)</li> <li>• Water (boiling, use caution!)</li> <li>• Water (ice)</li> </ul> <p>05.06 Marine Pollution:</p> <ul style="list-style-type: none"> <li>• Aluminum tin (1, pie size or larger or rectangle metal cake pan)</li> <li>• Bird feathers (2, can be found in craft or hobby materials)</li> <li>• Cooking oil (50 mL, such as vegetable oil or olive oil)</li> <li>• Clean-up materials (sample materials include spoons, craft sticks, plastic</li> </ul>



# Student Provided Lab & Other Materials

[http://www.pearsoncustom.com/us/flvs\\_companion\\_website/](http://www.pearsoncustom.com/us/flvs_companion_website/)

6-12

	<p>wrap, cotton balls or squares, paper, pieces of sponge, coffee filters, and liquid soap or detergent)</p> <ul style="list-style-type: none"> <li>• Stones, sand, or gravel to fill up about one quarter of the pan (this will be your beach)</li> </ul> <p>Segment Two Collaboration</p> <ul style="list-style-type: none"> <li>• Cotton balls (paper towels or toilet paper)</li> <li>• Hard-boiled eggs (10-15)</li> <li>• Masking tape</li> <li>• Paper cups</li> <li>• Popsicle sticks</li> <li>• Water</li> </ul> <p><i>Alternative options for these materials are listed in the answer keys</i></p>
<p><b>Middle School Comprehensive PE 6/7 v22</b></p>	<p>Stopwatch, Measuring tape, Masking tape or chalk, Whistle, Any coin, Tennis ball Video recorder</p>
<p><b>Middle School Comprehensive PE 7/8 v22</b></p>	<p>Stopwatch, Measuring tape, Masking tape or chalk, Whistle, Any coin, Tennis ball, Video recorder</p>
<p><b>Middle School Comprehensive Science I v18</b></p>	<ul style="list-style-type: none"> <li>• 01.02 Types of Forces: Steps, hard-cover books, blocks, or boxes to hold up the ramp, Wood, foam board, hard-cover notebook, cookie sheet, or other flat surface for ramp, Small ball (rubber, golf, tennis, etc.) or can to roll down the ramp, Ruler or tape measure, Towel, carpet, cotton fabric, sandpaper, or other material to alter the surface texture of the ground</li> <li>• 01.05 Graphing Speed: Timer, Meter stick or tape measure, Masking tape, sticky notes, paper, toilet paper, or other material that can be used to indicate distance, Marker</li> <li>• 02.04 Spheres of Earth: Two matching containers (clear glass or plastic bottles or cups such as milk jugs, soda bottles, or mason jars), Gravel or small rocks, Soil (potting soil or dirt), Two small plants (moss, grass, small potted plant), Water, Plastic wrap, Marker, Ruler</li> <li>• 06.05 Infections and Health: Cheesecloth, Coffee filters, Cotton balls, Funnel, Old T-shirt, Pantyhose, Sock, Water bottle, "Swamp water" (water from an outside source like a hole in ground, puddle, lake, river, or swamp, or students can add dirt to tap water)</li> </ul>
<p><b>Middle School Comprehensive Science II v18</b></p>	<ul style="list-style-type: none"> <li>• 01.03 Transformation of Energy: <ul style="list-style-type: none"> <li>Option One: Pencil, Paper, Scanner or digital camera</li> <li>Option Two: Various household materials, Digital camera to create video</li> </ul> </li> <li>• 03.02 Layers of the Earth: Sheet of paper, Ruler, Pair of scissors, Sharpened pencil, dowel, or chopstick (any of these will work), Piece of tape</li> <li>• 03.03 Plate Tectonics: Printer, Plain printer paper, Scissors</li> <li>• 04.02 Advanced Landforms on Earth: Pencil/drawing utensil, Digital camera</li> <li>• 05.01 Electromagnetic Spectrum: Optional digital camera if not using digital presentation software</li> </ul>



## Student Provided Lab & Other Materials 6-12

	<ul style="list-style-type: none"> <li>• 05.02 Properties of Light: Clear drinking glass, Piece of white paper, Black marker or pen, Water, Rubber band, Something to fasten rubber band to, such as a doorknob, Speaker, Source to play music through the speaker, Paper plate, Small bits of paper</li> <li>• 05.03 Phases of Matter: Cardboard box with attached lid that is at least 6 centimeters deep (or an empty pizza delivery box), Aluminum foil, Clear plastic wrap, Glue stick, Tape, Stick or ruler (about 30 centimeters long to prop open your oven flap), Scissors to cut with (seek adult assistance if you need it), Graham crackers, Large marshmallows, Plain chocolate bars (thin), Aluminum foil for a pan</li> <li>• 06.01 Biotechnology: Optional digital camera</li> </ul>
<p><b>Middle School Comprehensive Science III v18</b></p>	<p>Lesson 02.03:</p> <ul style="list-style-type: none"> <li>• Measuring cup</li> <li>• 1 cup of sugar</li> <li>• 1 small cooking pot</li> <li>• Heat source (stove), Kitchen scale to measure weight, Protective cooking gloves, 2 mixing spoons, Adult supervision</li> <li>• Lesson 02.04: Measuring cup, Thermometer, Kitchen scale to measure weight, Protective gloves, 2 mixing spoons, Water (room temperature), 2 large Styrofoam cups, Container or glass, Lemonade drink mix packet with citric acid, Baking soda, Active yeast, Cup for mixing yeast, Hydrogen peroxide, Adult supervision</li> <li>• Lesson 06.02: Five pounds of dry ice, finely crushed, Insulated container to hold the dry ice, Thick gloves, Rubber mallet, Safety goggles, Plastic bowl, Large towel to protect your work area, Several 12-gallon garbage bags, Flat tray, Liter of water, 2 cups of dirt, 1 tablespoon of starch, 1 tablespoon of dark syrup or soda, 1 tablespoon of vinegar, 1 tablespoon of rubbing alcohol, Hairdryer, Flashlight, Adult supervision</li> <li>• Lesson 06.03: Thermometer (or color-changing temperature strip), Protractor (or print out of a protractor), Large flashlight or table lamp (Cell phone flashlights or energy-efficient bulbs will not work for this activity), Adult supervision</li> </ul>
<p><b>Middle School Fitness Grade 6 v17</b></p>	<p>Box (cardboard, wood, or other material), Calculator, Scale, Stopwatch, Tape measure, Yardstick</p>
<p><b>Middle School Orientation to Art 2-D v5</b></p>	<p>Comic section of a newspaper, Glue stick (1), Markers (a large set that includes tints of colors. For example: blue, light blue, and dark blue), Pencils, Poster paint (any 1 color) and brush), Ruler, Scissors, Sharpie marker (1 black fine point), Sketchbook, Styrofoam trays (3) (cleaned meat tray or plate will work), Three-hole punch, Watercolor paint set, White paper (plain)</p>
<p><b>Middle School Spanish, Beginning v20</b></p>	<p>Microphone and recording device for computer</p>



## Student Provided Lab & Other Materials 6-12

<b>Middle School Spanish, Intermediate v21</b>	Microphone and recording device for computer
<b>Physics v20</b>	<p>3x5 cards, book, chalk, coffee stirrers, clear glass rectangular container (cake pan), droppable object, glass, graph paper, masking or cellophane tape, kitchen measuring cup, metric ruler, meter stick, objects with a circular surface (e.g. can of soup, bicycle tire, lids, drinking glass, etc.), paper (white), paper clips, pennies (200), periodic table, plastic container (small and clear), protractor, rubber band, scientific calculator, straws, string, stopwatch, string, Styrofoam cups (2), superball or other small ball, tennis ball, thermometer, washers (or paper clips), water (hot, cold, and warm)</p> <p><b>Graphical Analysis 4</b> (software link): <i>Graphical Analysis 4</i> was released before the Windows Vista operating system became available. Students with a Windows Vista (or later) operating system will need the following tech tip to get the material to work:</p> <ul style="list-style-type: none"><li>• Graphical Analysis contains a driver for LabPro that is incompatible with the Vista OS.</li><li>• During installation of Graphical Analysis, there will be error messages during driver installation. Click through the messages, accepting the errors.</li><li>• Next, the installer will attempt to install Quicktime 6. Quicktime 6 is also incompatible with Vista. Decline the offer to install Quicktime. If your computer does not have Quicktime installed, visit <a href="http://quicktime.apple.com">quicktime.apple.com</a> to install a Vista-compatible version.</li><li>• At this point, you will have an installation of Graphical Analysis that will function normally.</li></ul>
<b>Spanish I-IV</b>	Microphone and recording device for computer  NOTE: For the Speech Recording Tool to function properly, the course should be opened on a non-mobile device using the Google Chrome or Firefox browser. If you cannot access the course in the way described, you may use the alternative options provided in the Speech Tools Tab on the Menu Bar.