Overview

This course includes the option of either hands-on or dry lab activities.

- In order to conduct the hands-on laboratory activities in this course, you will need to obtain the materials listed in this document.
- No lab materials are needed to complete the dry lab activities.

Lab Manual

There is no lab manual required for this course. Each lab contains complete instructions on how to perform the experiments. Apex Learning® recommends that all students keep a detailed lab notebook as evidence of their lab work.

Disclaimer

Apex Learning has no liability whatsoever regarding any hands-on laboratory activities. The personnel at the school at which the student conducts the hands-on lab activities, or the student's parent or guardian if the lab activities are completed at home, are responsible for all such hands-on lab activities, including ensuring that qualified personnel are available to supervise the activities.

Questions?

Contact the Apex Learning support team by phone at 1-800-453-1454 or by email at support@apexlearning.com.
Hands-On Lab Materials by Experiment

(In parentheses: Semester, Unit, Lesson, and Activity number in Apex Learning course)

Wet Pennies
(Semester 1: 1.2.3)
- 3 pennies
- Medicine dropper or pipette
- Liquid dish soap
- Food coloring
- 3 small glasses of water

Falling Bodies
(Semester 1: 2.2.2)
- Plastic drinking cup with small holes in the bottom that are large enough for water to drip through
- Book approximately the size of the flat sheet of paper
- 2 sheets of notebook paper
- 2 Ziploc sandwich bags
- Feather
- Leaf from a tree or bush

Newton’s Laws
(Semester 1: 3.1.2)
- “Newton’s Cradle” device with a row of balls suspended with string
- Tray of sand or dirt, at least 2 inches deep
- Hard-boiled egg
- Raw egg

That Rubs Me the Wrong Way
(Semester 1: 3.2.2)
- Ruler, meter stick, or measuring tape
- Paperback book
- Flat eraser
- Key
- Notebook

Losing My Marbles
(Semester 1: 4.1.2)
- No materials needed

Smile and Wave
(Semester 1: 5.1.2)
- Coiled spring (e.g. Slinky brand)
- Stopwatch
- Meter stick or ruler
- Partner
Bend It Like Beckham  
*(Semester 1: 5.4.2)*

- Small drinking glass that fits inside the larger glass
- Large, clear drinking glass
- Water
- Cooking oil
- Wood pencil

A Shocking Tale  
*(Semester 1: 6.1.2)*

- Balloon
- Small pieces of tissue paper
- Plastic comb
- Empty soda can
- Paper plate
- Salt and pepper

Braving the Elements  
*(Semester 2: 1.1.4)*

- Periodic table of elements
- Graph paper
- Ruler
- Pencil

Elements from Outer Space  
*(Semester 2: 1.3.2)*

- Periodic table of elements
- The set of clues provided in the lab report
- A keen sense of reasoning

Edible Molecules  
*(Semester 1: 2.2.3)*

- Small box of dots or other small, round candy that a toothpick can pierce
- Package of large white marshmallows
- Package of small white marshmallows
- Package of mixed-color small marshmallows
- Toothpicks

How Do You Color Your Eggs?  
*(Semester 2: 2.3.3)*

- 4 small bowls or cups (each big enough for an egg)
- Small tub of water (for rinsing eggs)
- 2 teaspoons of food coloring
- 2 cups of water
- Vinegar
- 1 tablespoon salt
- 1 tablespoon sugar
- Pencil
- Masking tape
- 4 spoons
- 4 eggs
I'm Having a Reaction  
(Semester 2: 3.1.3)
- Laboratory balance or equivalent scale
- Calcium chloride
- Baking soda
- Teaspoon
- Small capped vial with phenol red
- Small plastic sandwich bag that can be sealed

Can You Feel the Heat?  
(Semester 2: 4.1.2)
- Stopwatch or timer
- Thermometer
- 4 Styrofoam drinking cups
- Ice cubes, preferably of similar shape and size
- Hot, but not boiling, water
- Room-temperature water
- 3 stirring rods, made of wood or plastic
- Cold water, from the refrigerator

Homemade Ice Cream  
(Semester 2: 4.3.3)
- Large baby-food jar or sandwich-sized sealable plastic bag
- Large coffee can with lid or similar container
- 1 cup half-and-half
- 1 cup whole milk
- ¼ cup sugar
- 3 tablespoons vanilla pudding mix
- ¼ teaspoon vanilla
- 2 kg crushed ice
- Apron
- 300 g rock salt
- Thermometer
- Towel
- Spoons

Nuclear Decay Chain  
(Semester 2: 5.1.4)
- Periodic table of elements