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.
Hand-on Lab Materials by Experiment

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

Gravity and Falling Objects
(Semester 1: 3.4.3)
- 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

Forces and Newton's Laws
(Semester 1: 4.4.1)
- Paperback book
- Flat eraser
- Key
- Ruler, meter stick, or measuring tape
- Notebook

Energy and Momentum
(Semester 1: 5.4.1)
No materials needed.

Waves, Sound, and Light
(Semester 1: 6.5.1)
- Coiled spring (e.g. Slinky brand)
- Stopwatch
- Meter stick or ruler
- Partner

Electricity and Magnetism
(Semester 1: 7.4.1)
- Salt and pepper
- Balloon
- Small pieces of tissue paper
- Plastic comb
- Empty soda can
- Paper plate

Atoms and the Periodic Table
(Semester 2: 1.4.1)
- Periodic table of elements
- Graph paper
- Ruler
- Pencil
Chemical Bonds  
(*Semester 2: 2.4.1*)
- 2 teaspoons of food coloring
- 4 eggs
- 2 cups of water
- Vinegar
- 1 tablespoon salt
- 1 tablespoon sugar
- Pencil
- Masking tape
- 4 spoons
- Small tub of water (for rinsing eggs)
- 4 small bowls or cups (each big enough for an egg)

Chemical Reactions  
(*Semester 2: 3.4.1*)
- Calcium chloride
- Baking soda
- Small capped vial with phenol red
- Laboratory balance or equivalent scale
- Small plastic sandwich bag that can be sealed
- Teaspoon

Gas Laws and Thermodynamics  
(*Semester 2: 4.4.1*)
- 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
- Spoons
- 300 g rock salt
- Thermometer
- Towel
- Large coffee can with lid or similar container
- Large baby-food jar or sandwich-sized sealable plastic bag

Radioactivity  
(*Semester 2: 5.4.1*)
- Periodic table of elements