

Introduction

Lab Options

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

- Dry labs have no required materials.
- Hands-on labs require the materials listed below.

Lab Manual

- Each lab contains complete instructions – there is no lab manual for this course. It is strongly recommended that students keep a detailed notebook of their 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 Apex Learning Support by phone at 1-800-453-1454 or by email at support@apexlearning.com.

Hands-On Lab Materials

Inquiry

Semester 1: 1.1.4

- 4 teaspoons baking soda
- 4 teaspoons baking powder
- 4 teaspoons sugar
- 4 teaspoons salt
- 4 Tums tablets
- 5 tablespoons water
- 5 tablespoons lemon juice
- 5 tablespoons milk
- 5 tablespoons vinegar
- 5 bowls or glasses
- 2 metal spoons

Wet Pennies

Semester 1: 1.2.4

- 3 pennies
- Medicine dropper or pipette
- Liquid dish soap
- Food coloring
- 3 small glasses of water

How to Win at the Olympics without Really Trying

Semester 1: 2.1.3

- Meter stick or tape measure
- 2 stopwatches
- Chalk or masking tape

Falling Bodies

Semester 1: 2.2.2

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

Follow the Vectors

Semester 1: 2.3.4

- “Treasure” (something to hide— could be candy, money, etc.)
- Compass (a small, clip-on backpack compass will work)
- Pencil

Newton's Laws

Semester 1: 3.1.3

- “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: 3.2.3

- Ruler, meter stick, or measuring tape
- Paperback book
- Flat eraser
- Key
- Notebook

I'm So Dizzy

Semester 1: 3.3.2

- 3 different lengths of string (use the same kind of string) – longest shouldn't be more than 1 meter
- Set of 8 metal washers, each the same size and weight

Density's Child

Semester 1: 3.4.3

- Large clear jar
- Corn syrup
- Colored water
- Cooking oil
- 2 golf ball-sized portions of clay
- 5 small items of various sizes and weights. Examples include:
- Paper clip
- Rubber band
- Small pebble
- Wood
- Flat eraser
- Paper
- Grape
- Steel ball bearing

Losing My Marbles

Semester 1: 4.1.2

- No materials needed

Building a Pyramid

Semester 1: 4.2.3

- Flat surface, such as a shelf board, to act as the incline
- 2 books of different thickness
- Wood block or brick
- Spring scale
- Meter stick

Swinging in the Rain

Semester 1: 4.3.3

- Set of 8 small washers to hang on the string as weights
- String
- Ruler

Smile and Wave

Semester 1: 5.1.2

- Coiled spring (e.g. Slinky brand)
- Stopwatch
- Meter stick or ruler
- Partner

Listen Up

Semester 1: 5.2.2

- Drum or coffee can
- A few paper clips
- Rubber band
- Tuning fork
- Cup of water
- Fork

Let There Be Light

Semester 1: 5.3.3

- 6 different colors of paper at least 10 cm x 10 cm
- Room with a light switch
- Pen or pencil

Bend It Like Beckham

Semester 1: 5.4.3

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

A Shocking Tale

Semester 1: 6.1.3

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

A Series of Enlightening Events

Semester 1: 6.2.2

- (8) 10 cm-long pieces of insulated wire
- (4) 1.5-V light bulbs
- (2) 1.5-V batteries
- Battery holders
- Mini bulb sockets