

Introduction

Lab Options

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

- Dry labs require the lab manual – no additional materials are required.
- Hands-on labs require the lab manual and the materials listed below.

Lab Manual

Prentice Hall Earth Science Lab Manual, Student ed. Edward J. Tarbuck and Frederick Lutgens (Prentice Hall, 2006).

See the [Course Materials List](#) for how to acquire this manual. Note: The "DataBank" is a set of colored images (maps, charts, etc.) in the back of the manual.

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

Exploring Orbits

Semester 1: 1.2.3 / PH: Investigation 23

- 3 sheets of paper
- Heavy corrugated cardboard
- 2 pushpins
- Metric ruler
- String, 30 cm long
- 5 colored pencils
- Cellophane tape
- Calculator

Investigate Weathering and Erosion

Semester 1: 2.4.3

- Graham crackers: at least 2 identical rectangular sections
- Plastic knife
- Frosting

- Bowl
- 3 clear glasses
- Eyedropper/medicine dropper
- Water
- Ice cube tray or similar freezable containers smaller than a graham cracker
- Additional materials as needed for your investigation, such as more graham crackers, hot water, ice, lemon juice, or a drinking straw

How Does Temperature Affect Water Density?

Semester 1: 3.3.2 / PH: Exploration 15 / Alternate dry lab available

- (2) 100-mL graduated cylinders
- 2 test tubes
- 2 beakers
- Stirrer
- Food coloring or dye
- Ice
- Tap water
- Graph paper
- Colored pencils

Determining How Temperature Changes with Altitude

Semester 1: 4.1.5 / PH: Investigation 17A

- Ruler or straight edge
- Colored pencils
- Tracing paper
- Resource 12 in the DataBank

Investigating Factors that Control Temperature

Semester 1: 4.2.3 / PH: Investigation 17B

- Resources 14+15 in the DataBank
- Ruler or straight edge
- Graph paper

Investigate Using a Dichotomous Key

Semester 1: 5.4.3

- Glass jar or sealed container
- Gloves
- Pencil or pen
- Paper for making observations

- Computer with Internet access

Investigate Cycling of Matter and Energy

Semester 2: 1.4.3

- A clear 2- or 3-liter plastic soda bottle
- Marker
- Scissors
- Gravel, pebbles, or small stones
- Potting soil or dirt from a yard or field
- Activated charcoal (optional)
- Sphagnum moss (optional)
- Small plants or seeds (e.g., beans, peas, radishes, wheat grass, marigolds, zinnias)
- Water
- Gloves
- Small invertebrates (e.g., pill bugs, ladybugs, crickets, flies, earthworms, mealworms, etc.)
- Scrap paper

Continental Glaciers Change Earth's Topography

Semester 2: 3.3.4 / PH: Investigation 7

- Resources 1+9 in the DataBank
- Metric ruler
- Calculator (optional)

Classifying Rocks Using a Key

Semester 2: 4.5.4 / PH: Investigation 3 / Alternate dry lab available

- Bottle of dilute (1M) hydrochloric acid (HCl) with dropper
- Igneous rocks
- Sedimentary rocks
- Metamorphic rocks
- Hand lens
- Paper towels
- Red pen or pencil

Investigate Resource Consumption

Semester 2: 5.4.3

- 100 pieces of cereal
- Table
- 2 spoons of the same size
- Cup

- Timer or clock that shows seconds
- Other small items (e.g., paper clips, beans, pasta, rice, etc.)
- Other grasping devices (e.g., tweezers, tongs, fingers, etc.)
- Pencil
- Paper

Investigate How Pollutants Affect Plants

Semester 2: 6.4.3

- 15 – 20 small plastic cups
- Scissors
- Permanent marker
- Tray or bin
- Potting soil
- Radish seeds (or other fast-sprouting seeds)
- Distilled water
- Salt
- Measuring cups and spoons
- Stirrer
- Pollutants needed for investigation (could be oil, vinegar, detergent, window cleaner, etc.)
- pH strips from a pool supply or aquarium store