

Introduction

Lab Options

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

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

Lab Manual

Biology: Exploring Life Lab Manual, Student ed. Neil Campbell, Brad Williamson, and Robin Heyden (Prentice Hall, 2004).

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 these manuals.

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

Making a Rip-O-Meter

Semester 1: 1.1.3 / Biology PH: Lab 2

- Paper cup
- Paper clip
- Approximately 150 pennies
- 2 plastic sandwich bags
- Masking tape
- Marker
- Leaves

Determining Latitude and Longitude

Semester 1: 2.1.4 / Earth Science PH: Exploration 1

- Globe (optional)
- Protractor
- Ruler
- World map

Mineral Identification

Semester 1: 3.5.1 / Earth Science PH: Exploration 2 / Alternate dry lab available

- Resource 16 in the DataBank
- Mineral samples
- Hand lens
- Streak plate
- Copper penny
- Steel knife blade
- Glass plate
- Piece of quartz
- Magnet
- Hammer
- 50-mL graduated cylinder
- Tap water
- Balance
- Thin thread
- Scissors
- Paper or cloth towels
- Dilute hydrochloric acid

Determining How Temperature Changes with Altitude

Semester 1: 4.1.7 / Earth Science PH: Investigation 17A

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

Determining Geologic Ages

Semester 2: 6.1.5 / Earth Science PH: Investigation 13

- Resources 10+11 in the DataBank
- Geologic block diagram (figure 1 provided)
- Logarithmic scale showing decay of U-235 (provided)

How Does Temperature Affect Water Density?

Semester 2: 7.2.2 / Earth Science 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

Can Lake Life Remain Despite Acid Rain?

Semester 2: 8.3.3 / Biology PH: Lab 36

- Graduated cylinder
- Labeling tape
- 50 mL distilled water
- Simulated “acid rain” (dilute acetic acid in small beaker or cup)
- 50 mL local lake water (or 50 mL local soil, 100 mL tap water, coffee filter, funnel)
- Transfer pipette
- Universal pH indicator
- Stirring rods or coffee stirrers
- Marker
- 50 mL simulated Brant Lake water
- 5 clear plastic cups or beakers (500-mL size)
- 50 mL simulated Blue Mountain Lake water

Human Impact on Climate and Weather

Semester 2: 9.3.4 / Earth Science PH: Exploration 21

- Paper
- Pen or pencil