

APPENDIX C

A COMPLETE LIST OF LAB SUPPLIES

Items in boldface, blue type are found in the laboratory equipment sets that are sold for the course. The other materials are available at supermarkets, hardware stores, or drug stores. If the bullets are black, the items are used in an experiment that employs only household items. Green bullets accompany items used in microscope experiments. Red bullets accompany items used in dissection experiments.

Module #1

- A tall, clear or translucent *plastic* drinking cup or a 20-oz. empty water bottle
- Water
- A piece of masking tape
- A liquid measuring cup
- A small saucepan
- Stove
- A tablespoon
- Salt
- Metal stirring spoon
- A small bowl
- Six clear drinking glasses
- Two colors of food coloring (yellow and blue work the best)
- Chilled water from the refrigerator
- Turkey baster
- One sheet of cardstock
- Scissors
- A tack or push pin
- One foot of string
- A pencil
- A cork bulletin board or sheet of corrugated cardboard
- A marker
- A helper
- A tub
- A cork or small toy boat
- A 12-inch length of 2-by-4 wood

Module #2

- A tall, clear drinking glass
- A sprig of a live fresh water aquarium plant from genus *Elodea* (this can be purchased from most aquarium stores or larger pet stores). The most common species in America is called the “American waterweed.” Plants from genus *Elodea* are sometimes called *Anacharis*, but this name is also used for similar plants, some of which are illegal in some states. If American waterweed

and Anacharis are outlawed in your state, find a water plant with stalks that look like long, slender bottle brushes.

- A small, sharp knife
- Alcohol
- Paper towels
- A metal washer
- A sunny window or floodlamp
- A large, clear, glass measuring cup (if you are using the floodlamp)
- Water
- A measuring cup for liquids
- Measuring spoons
- A packet of active dry yeast (can be purchased at a grocery store)
- Sugar
- A stirring spoon
- Turkey baster (with a removable bulb)
- A small bit of clay
- Masking tape
- Three coffee mugs
- One fresh, raw egg
- Plastic wrap
- White vinegar
- Clear sugar syrup (like Karo syrup)
- Distilled water (You can purchase this at any large supermarket.)

Module #3

- Microscope
- **Prepared slide of diatoms** (This slide was included in the kit for the first year biology course. If you do not have that kit, you can order the slide individually from Nature's Workshop Plus.)
- **Prepared slide of dinoflagellates**
- **Prepared slide of foraminiferans**
- **Prepared slide of radiolarians**

Module #4

- A natural sponge (these can usually be purchased at craft stores or in the paint department of a home improvement store)
- Bread knife or scissors
- Four 9-inch balloons
- Water
- An old tube sock or the foot and leg section of a stocking

Module #5

- **Dissecting tools and tray**
- **Clam specimen**

- Magnifying glass
- **Microscope**
- **Lens paper**
- **Prepared slide: Barnacle nauplius**
- **Prepared slide: Crab zoea**
- **Prepared slide: Crab megalops**
- **Dissecting tools and tray**
- **Sea star specimen**
- Water
- **Slide**
- **Cover slip**
- **Lens paper**

Module #6

- **Microscope**
- **Lens paper**
- **Prepared slide: Dogfish placoid scales**
- **Prepared slide: Cycloid scale**
- **Prepared slide: Ctenoid scale**
- **Dissecting tools and tray**
- **Dogfish shark specimen**
- Magnifying glass

Module #7

- An unopened 2-liter bottle of clear soda (a smaller bottle will also work, but not as well)

Module #8

- 2 marshmallows
- A small metal skewer or fork
- A clear glass mason jar
- A match (plus a helper who can hold it for you)
- A sink

Module #9

- A large, clear glass jar
- At least 1 cup each of sand, clay, and gravel (These can be found at most garden supply stores. Please note that the clay is *not* modeling clay. It is the kind of clay you use for plants.)
- A garden hose
- A large spoon
- A metal mesh kitchen strainer
- At least 1 cup each of sand and clay
- Two medium bowls

- A measuring cup with a capacity of 1 cup
- A measuring cup for liquids or any container with a pouring spout
- Water

Module #10

- Ruler

Module #11

- **A small, nonliving coral skeleton** (If you did not get the kit that goes with this course, you can most likely find a sample at a salt water aquarium store. It does not have to be large.)
- Magnifying glass
- Ruler
- Hammer
- Pencil

Module #12

- **Microscope**
- **Prepared slide: Rotifers**
- **Prepared slide: Nematodes**
- **Prepared slide: Hydra** (This slide would have been in the supplies for your first-year biology course. If you cannot find it, don't worry. Just review your first-year biology lab notebook to refresh your memory about what a hydra looks like.)

Module #13

- A 2-liter bottle
- Scissors or small steak knife
- Liquid measuring cup
- A small aquarium aerator, aquarium tubing, and air stone (A long-handled spoon can be used to stir the water instead, but that shortens the time over which you can perform the experiment.)
- **Brine shrimp eggs**
- Salt without iodine (Most salt is iodized, but you can find non-iodized salt in most stores. You cannot use ocean salt for this experiment. It needs to be table salt; it just should not be iodized. Morton's, for example, makes both iodized and non-iodized salt.)
- Baking soda
- Teaspoon
- One packet of baker's yeast
- Small plastic storage container with lid
- Eyedropper
- Microscope, slides, and coverslips (or a magnifying glass)
- Small chunk of modeling clay or Play-Doh[®] (about the size of a plum)
- Wood toothpicks
- Deli toothpicks (the kind with the curly strips of colored cellophane on the ends)

Module #14

- **Glowing light stick**
- Two drinking glasses
- Ice water
- Warm water
- Two glass slides (They do not have to be microscope slides. You just need two flat glass surfaces that can be placed on top of one another. You could use two glass panes from two small picture frames, or you could use a mirror as the bottom surface and a glass pane as the top surface.)
- Eyedropper
- **Dried ostracods (sea fireflies)**
- Water

Module #15

- Blank world map (There is one in the solutions and tests guide, right after the study guide solutions for this module. There is also one on the course website, which is discussed in the “Student Notes” at the beginning of this book.)
- Blue and green colored pencils (several shades)
- World atlas or world map

Module #16

- One cup of dried kidney beans
- One-half cup of dried lentils (NOTE: Any type of beans will do for this experiment, but you should be able to easily differentiate between the two types.)
- Twenty-three 10-ounce disposable drinking cups
- Calculator