

Discover!

Life Science Lab Materials

The Discover! curriculum prioritizes the use of everyday items for our laboratory experiments. This is a list of materials for each of the unit labs. There is also a list of commonly used science lab items that are contained in the Discover! Middle School Laboratory Kit available for sale through Edovate (available September 2024). The purchase of this kit is NOT mandatory, and all items can be purchased or borrowed from a preferred source.

Middle School Laboratory Kit Items (used in multiple courses)

- stirring rods
- funnels
- thermometer
- safety goggles
- safety apron/safety lab coat
- gloves
- digital scale
- mL measuring beakers
- modeling clay
- thick twine
- foldable ruler/meter stick
- hand lenses or magnifying glass
- microscope and slides (portable, preferably)
- various size marbles
- 12 inch wooden dowel (this is a multipack – we just need 2 in each box)
- protractor
- bar magnet
- pipet or medicine dropper

Unit 1 Lab: Investigating Plant Growth

- goggles
- gloves
- water
- 2 small potted plants
- clear plastic wrap
- measuring cup
- baking soda
- lamp or natural sunlight source
- notebook
- pen

Unit 2 Lab: The Power of Handwashing

- antibacterial hand soap
- beef bouillon powder
- 5 clean plastic containers with lids
- cotton swabs
- dish soap
- distilled water
- saucepan
- heat source

Unit 3, Lab 1: Vascular vs Nonvascular Plants

- nonvascular plant specimen (moss from outside)
- celery with leaves
- magnifying glass (or hand lens)
- small water containers
- food coloring
- scissors
- microscope and slides (optional)
- knife or dissecting tools (optional)

Unit 3, Lab 2: Sustainable Agriculture, Composting

- two pots
- soil
- food scraps
- shredded newspaper or dry leaves
- coffee grounds or used coffee filter
- watering can
- marker
- thermometer
- gloves (optional)

Unit 4, Lab 1: Botanical Cycles

- 3 small plant pots or Styrofoam cups
- potting soil
- acidic fruit (lemon, orange)
- nutrient rich potting soil (ex. Miracle grow)
- pea plant seeds
- ruler

Unit 4, Lab 2: Exploring Your Own Backyard

- notebook
- plant identification guide or app
- ruler
- camera or smartphone for documentation

- clear plastic cup
- thermometer
- plastic bags for specimen collection
- microscope (optional)

Unit 5, Lab 1: Berrytastic Extraction

- coffee filters
- cold rubbing alcohol
- dish soap
- fresh strawberries
- plastic cups
- rubber band
- salt
- toothpicks
- water
- Ziploc bags

Unit 5, Lab 2: Mendelian Genetics, LIVE!

- fertilizer
- grow lights or bright sunlight
- markers
- nonpurplestem fast plants
- purplestem fast plants
- plant containers
- soil watering can
- magnifying glass (optional)

Unit 6, Lab 1: The Ins and Outs of Membranes

- 2 eggs soaked in vinegar for three days
- 1 L of vinegar
- 2 tall glasses (tall enough for egg to sit inside)
- Salt
- tablespoon
- small scale
- stirring rod

Unit 6, Lab 2: Getting a Grip on Biomedical Engineering

- 10 straws
- scissors
- string
- poster board or thick paper
- paper ball
- pen
- duct tape or other strong tape

Unit 7, Lab 1: Simulating Heart Disease

- 2 small plastic cups
- 2 wide straws
- scissors or craft knife
- red food coloring
- roasting pan or another mediumheight tray
- modeling clay
- 1000 mL water
- stirring rod
- timer
- measuring cup

Unit 7, Lab 2: Pill Engineering

- 60 mL flour
- 30 mL cornstarch
- 60 mL sugar
- 30 mL vegetable oil
- paper plate
- 4 bowls or cups
- clear plastic cup
- 2 cups of clear diet soda
- spoon
- 4 pieces of hard colorcoated candy
- timer
- measuring spoons
- poster
- markers

Unit 8 Lab: Modeling an Epidemic

- 2 bottles distilled water (4L)
- half a head of purple cabbage
- 100 mL vinegar
- 20g baking soda
- 20 clear cups
- eye dropper or pipet
- measuring cup
- pot
- goggles
- plate
- marker