

Shopping List for Unit #19: Biology Part 2

www.ScienceLearningSpace.com

How many of these items do you already have? We've tried to keep it simple for you by making the majority of the items things most people have within reach (both physically and budget-wise), and even have broken down the materials by experiment category so you can decide if those are ones you want to do.

Note: These materials listed here are only for the experiments listed in Unit 19 online. (There are different experiments listed in the downloadable Lesson Plan.) If you'd like to do the additional experiments within the Lesson Plan, download the [Unit 19 Lesson Plan](#) document and you'll find the materials list inside.

Robotic Hand

five flexible straws
scrap of cardboard (at least as big as your hand)
five rubber bands
5 feet of string or thin rope

2 packages of sugar
2 packages of salt
1 microwave
water
1 spoon
1 partner

Tasty Tastebuds

1 partner
1 blindfold
1 cup of water
1 plate
1 lemon
2 toothpicks
1 sugar cube
1 salty cracker
1 piece of dark chocolate
1 pencil

Detective Boxes

4 shoeboxes with lids
1 soup can
1 pair of scissors
1 sheet of sandpaper
1 sheet of wax paper
1 sheet of flannel fabric
1 sheet of plastic
1 glue gun
1 pair of gloves
Partners

Chemical Fingerprinting

1 oz. bottle of baking soda
water
1 sheet of goldenrod paper
1 paper towel
1 magnifying lens

Finger Thermometers

3 glasses
1 Celsius/Fahrenheit thermometer
1 clock with second hand
hot water
cold water
ice cubes (optional)
room-temperature water

Nerve Tester

1 large paper clip
1 metric ruler
1 partner

Diffusion

1 onion
1 lemon
1 bottle of ground cinnamon
1 clove of fresh garlic
1 garlic press
1 pile of fresh coffee grounds

Mapping your Tongue

4 cotton swabs
5 wax cups
1 bag of black tea
1 bottle of red vinegar

1 kitchen knife
1 cutting board
1 variable-speed fan
1 clock with a second hand

Foggy Hands

1 gallon baggie
1 string, 12 inches long
1 assistant
1 clock

Scent Matching

10 small containers with lids
10 cotton balls
1 bottle of lemon juice
1 cup of black coffee
1 bottle of vanilla extract
1 bottle of cinnamon oil
1 bottle of soy sauce
1 black felt marker
1 assistant

Sound Whackers

1 desk
1 metric ruler

Sound Speed

3 baggies, resealable
sand
water
air
1 desktop
1 spoon
1 partner

Big Ears

2 styrofoam cups, 12 oz.
2 styrofoam cups, 32 oz.
1 pair of scissors
1 kitchen timer

Sound Matching

10 film canisters (for 35 mm film rolls)
beans
rice
sawdust (or pencil shavings)
paperclips
pennies
1 black, felt marker
assistant

Water Lens

1 washer, 3/8 inch inside diameter
1 microscope slide
1 container of petroleum jelly
1 piece of newsprint with a lot of type
1 pipette, 1 mL
water

Camera Eyes

1 dark room
1 light switch
1 partner
1 pencil

Disappearing Frog Experiment

1 frog and dot printout
1 meter stick
1 scrap piece of cardboard

Eyeballoon

1 biconvex plastic lens
1 round balloon, white, 9 inches
1 assistant
1 votive candle
1 black marker
1 book of matches
1 metric ruler

Detecting Temperature Changes

1 measuring cup
1 bottle of calcium chloride
1 bottle of ammonium nitrate
2 resealable baggies
water

Rubber Eggs

4 fresh chicken wing bones, meat removed
1-16 oz. bottle of distilled white vinegar
2-12 oz. plastic cups
1 fresh egg
1 spoon

Cooling and Heating

1 bottle of rubbing alcohol
1 cotton ball
1 liquid crystal thermometer strip
1 cotton glove

Inside Bones

1 toilet paper tube
50-100 straws
1 roll of tape
1 book

Tricking your Muscles

1 partner
1 clock with second hand

Testing Muscle Strength

1 bathroom scale
1 pencil
1 partner

Visual Reflex

1 metric ruler
5 volunteers

Tendon Reflex

1 knee
1 partner

Detecting Plaque

1 4-pack of red disclosing tablets
1 clear plastic cup
1 mirror
1 red crayon
water

Testing Spit Samples

1 package of soda crackers
1 5" pie tin
1 craft stick
1 0.5 oz bottle of iodine
1 pre-form tube
plastic pipette or dropper
water

Seeing Your Pulse

1 lump of modeling clay or plastic putty
1 stopwatch
1 coffee stirrer straw
1 partner

Swallowing

1 tennis ball
1 pair of old nylons
1 pair of scissors

Working Lung Model

1 2-liter soda bottle, emptied and cleaned
1 pair of scissors
1 "y" valve hose connector
3 round, 9-inch balloons
1 #3 one-hole stopper
1 length of hose, 8-inch
2 rubber bands
1 jar of petroleum jelly

PTC Testing

1 vial of [PTC paper](#)
family members

Human Levers

1 body

What's Your Lung Capacity?

1 2-liter soda bottle
1 black marker, permanent
1 12" length of rubber hose
1 large plastic bowl
1 cup measure

Consuming Oxygen

1 aluminum tart pan
1 votive candle
1 book of matches
1 clear drinking glass, 12 or 16 oz.
1 dime
water
1 pair of goggles

Detecting Carbon Dioxide

1 1 oz. bottle of bromothymol blue
1 straw
1 resealable baggie
1 bottle of ammonia
1 pipette
water

Heart Rate Monitoring

1 clock with a second hand
1 pencil

Stethoscope

3 12-inch lengths of rubber hose
1 "T" connector
1 funnel