

LIST OF DEMONSTRATION SUPPLIES NEEDED FOR PHYSICAL SCIENCE UNITS 1-4

UNIT 1

ball and stick	ring stand and wire support	25mL 0.1M Na ₂ S	iron filings (10g)
molecular model kit	2 stirring rods	2 g NaOH	oxygen (small bottle)
Bunsen burner	2 thermometers	250 mL 0.1M NaOH	pepper (10g)
4 250 mL beakers	various objects (book, lamp, glass of water, etc)	small samples of Li, Na, Cu, Ag, ammonia (25mL)	phenolphthalein (10mL)
crucible	watch glass	charcoal (10g)	powder chalk (2g)
2 250 Erlenmeyer flask	10g NH ₄ Cl	a beaker full of dry ice	perfume (25mL)
filter paper (2 pieces)	25mL 0.1M Cd(NO ₃) ₂	flour (10g)	2 pieces of steel wool (one rusted one normal)
2 funnels	25mL 1.0M HCl	hydrogen (small bottle)	sugar (10g)
magnet	250 mL 0.1M HCl	iodine crystals (10g)	water

UNIT 2

ball	stop watch	apple juice (25mL)	sodium thiosulfate pentahydrate
4 50mL beakers	3 test tubes	baking soda (25mL)	1.0M sulfuric acid (25mL)
board	hammer	coffee (25mL)	water
book	matches	drain cleaner (25mL)	toy truck
Bunsen burner	nail	lemon juice (25mL)	wedge
conductivity tester	pH paper	lime (25mL)	weights (several ½ and 1 kg)
double pulley	pH meter ramp	liquid soap (25mL)	wood (piece of)
fixed pulley	screw	Mg(OH) ₂ (10 g)	string (2m)
free pulley	ammonia (25mL)	oil	
fulcrum	antacid (25mL)	salt (10 g)	
4 stoppers			

UNIT 3

aquarium	1 m of copper wire	a large iron or steel nail	2 wires with alligator clips at ends
2 small bar magnets	flash light	overhead projector	aluminum objects
1.5V battery	a hammer	prism	1 m of copper wire
battery holder	laser pointer	protractor	iron objects
2 beakers	a load stone	a solenoid	small object
2 bulbs (LED)	magnifying glass	2 spoons	Optional activity
2 bulb holders	piece of metal	2 vibration sources	a dissected electric motor
clear (petri) dish	microscope	wave tank	a dissected galvanometer
clear plastic dish filled with hole in center	milk	water	a dissected speaker
iron filings	mirror (flat)	5 wires	
	mirror (regular)		

UNIT 4

none needed

LIST OF LABORATORY SUPPLIES NEEDED FOR PHYSICAL SCIENCE UNITS 1-4 (NEEDED FOR EACH LAB GROUP)

UNIT 1

balance	mortar & pestle	30 mL of 0.1M	salt and flour mixture
9 50mL beakers	ring stand	$Al_2(SO_4)_3$	Ni (10.0g samples of metal shot)
Bunsen burner	stirring rod	assorted colored candy (M&M, Skittles)	sugar (5g)
conductivity meter	stopwatch	Cu (10.0g samples of metal shot)	salt (5g)
crucible, watch glass	4 test tubes	Cu powder (3g)	Zn powder (3g)
drying oven	Test tube holder	30 mL of 0.1M of $CuSO_4$	30 mL of 0.1M $ZnSO_4$
filter paper (1box)	weighing paper or dish	3 denture effervescent tablets	water
funnel	Al (10.0g samples of metal shot)	ice	
graduated cylinder (25mL)	Al powder (3g)		
matches			

UNIT 2

balance	marble	stoppers	bleach
2 150mL beakers	matches	stop watch	20 g calcium acetate
block	meter stick	string	mayonnaise
a box with a lid	20 pennies	styrofoam cup	milk
2 Bunsen burners	3 black felt tip pens	tape	20 g potassium chloride
3 2x15 cm strips of chromatography paper	pH papers	thermometer	soft drink
colored pens	ramp (wooden)	toy truck	soap
box of crayons	2 ring stands with wire mesh	small weight	vinegar
3 50mL graduated cylinders	ruler	1.0 kg weight wheel	water
2 hot plates	sand paper	wheel stand	
	access to a flight of stairs	10 aluminum washers	
	2 stirring rods	baking powder	
		baking soda	

UNIT 3

1 ammeter	holder for paper	3 rubber bands	2 metal cylinders (iron & tin)
2 bar magnets	jump rope	rubber block	piece of copper
2 1.5V batteries	lens holder	ruler	150 mL of 0.5M $CuNO_3$
battery holders	light box	scissors	a salt bridge filled with 1.0M NaCl and stopped up with cotton balls
two 250mL beakers	thin piece of metal/ wood with large surface area	a slinky (preferably metal)	
2 bulbs (LED)	thick piece of metal/ wood with small surface area	solenoid	
2 bulb holders	meter stick	steel wool	
cellophane (red, blue, and green)	nails (large iron)	stopwatch	various iron & nickel objects
colored pencils or pens	roll of white paper	string	150 mL of 0.5M $ZnNO_3$
colored ribbon (10 cm)	box of small paper clips	tape	piece of zinc
convex lens	poster board	tuning forks (preferably several of different pitches)	
cup (plastic)	ring stand	5 connecting wires	
1 m thin copper wire			
1 m thick copper wire			
3 flashlights			

UNIT 4

aluminum foil
balance
4 50 mL beakers
100mL beaker
400 mL beaker
a bag of red pipe cleaners
a bag of blue pipe cleaners
piece of cloth
compass
~ 30 cotton balls
envelope
250mL Erlenmeyer flask
glue
5 index cards
empty jar with lid
lamp w/100W bulb

light box
magnifying lens
map of United States
black marker
meter stick
microscope
newspaper
pieces of nylon
red and blue paint
paper towel
rubber band
ruler
scissors
shoebox
staples
star charts

#6 stopper with hole
straight pin
string
small styrofoam ball
60 mL syringe with
plunger
tape
thermometer
weighing dish
wire
wire hanger bent in a
circle
small pieces of concrete
glycerin
small pieces of granite
food coloring

dropper bottle of 0.1M
HCl
small pieces of limestone
teaspoon of liquid soap
small pieces of marble
petroleum jelly
various rocks (granite,
obsidian, pumice,
gneiss, slate, marble,
limestone, shale,
rock salt)
1000 mL vinegar
water