
MATERIALS

(Numbers in parentheses indicate the activity number which uses the item listed)

CHEMICALS:

- 5 lbs canning or kosher salt (1,2,3,4,5,6,19))
- 1 box corn starch (1)
- food coloring kit with 4 colors in dropper bottles; 2 bottles per per group (3,4,5,6,15,31)
- several cups of dirt (8,25)
- dark color of unsweetened Koolaid (1)
- 1/4 cup plant fertilizer such as Rapidgro or Peters (8)
- about 1 lb table sugar (1)
- several tablespoons of liquid detergent (9,23)
- 1/4 cup vinegar (9)
- 1/4 salad oil or motor oil (9)
- LaMotte dissolved oxygen test kits (7,11,12,13,27)

EQUIPMENT AND GLASSWARE:

NEEDED FOR EACH STUDENT:

containers

- 1 disposable paper drinking cup per child (2)
- 1 pint plastic or glass jar or large paper or plastic glass (6)
- 2 clear plastic cups (6)

other items

- 1 plastic teaspoon (6)
- 1 colored marker for game such as button or colored paper (16)
- 15 poker chips or other indestructible small objects (28,29,30)
- small plastic bag (28,29,30)
- plastic goggles (7,11,12,13,27)

NEEDED FOR EACH STUDENT GROUP:

containers

- 4 clear plastic glasses (1,3,7,15,19,23)
- 5 clear plastic quart soft drink bottles or glass jars (8,9)
- 3 glass or clear plastic jars or drink bottle
(2 small and 1 four times as large as small ones) (10)
- 2 quart glass canning jars with lids (14)
- 4 35 mm plastic film cans or plastic vials with caps (19)
- plastic bucket (20,23,33)
- cardboard quart or half gallon milk carton (22)

measuring devices

- 1 graduated clear plastic measuring cup or plastic graduated cylinder (1,3,6,15)
- 100 ml plastic graduated cylinder (19)
- 1 plastic teaspoon (1,3,15)
- 250 gram spring scale (3,6,15,19)
- dissolved oxygen kit sample bottles and syringe (7,11,12,13,27)
- large syringe or kitchen baster (7,11,12,13,27)
- 3 breakproof thermometers (10,15)
- watch or timer that has second hands or shows seconds (14,20,24)

other items

- 3 stirrers (1)
- 2 small aluminum or plastic pans (19,23)
- 50 pennies (19,23)
- dish pan or baking pan or dissection tray (19,21,22)
- plastic funnel (19)
- calculator (16)
- 1 die (16)
- small scissors with one pointed tip (21,26)
- 12 in ruler (22)
- eyedropper (23)
- clipboard with pencil tied on (24,33)

NEEDED FOR TEACHER DEMONSTRATION OR WHOLE CLASS:**containers**

- Styrofoam cooler (31)
- large aquarium (25)
- 2 clear plastic aquariums or gallon glass jars (4,5,25)
- heavy coffee cup or mug (3)
- quart fruit jar (1)
- 8 or more pint or quart glass canning jars with lids (7,11,12,13,27)
- 4 clean gallon plastic milk jugs (2,3,4,5,6,19)
- large trash can (20,21,22)

measuring devices

- several simple balances (3,6,15)
- dissolved oxygen test kit (7,11,12,13,27)
- small 35 mm or Polaroid camera and 1 roll film (8,9)
- thermometer good to 100o C (13)
- tape measure or carpenter's rule (24)

other items

- air-cooled slide or filmstrip projector (25)

34 feet clear plastic tubing for siphons (4,5)
marking tape or labels (1,3)
small prizes (6,20)
prism (25)
refrigerator or ice chest and ice (10,12)
two light sources (27)
small balloons (21,22)
whistle (28,29,30)
large pad and pen or portable chalk board (28,29,30)
waterproof pen (31)
bricks or rocks (31)
sand or gravel (31)

PAPER AND ART SUPPLIES:

colored pencils or crayons (1,4,35)
construction paper and/or posterboard (2,16,18,26,31,35)
red construction paper (26)
blue cellophane from school art store (26)
plasticine modeling clay (19,20,23)
crepe paper or surveyor's flagging in three colors (29,30)
tissue paper (35)
old magazines with colored pictures of aquatic habitats and animals
(2,18,25,26,29)
rubber bands (19,20,23)
plastic straws (20,23,31)
toothpicks (20,23)
wire (20,23)
straight pins (23,31)
coffee stirrers (20,23)
string (20,21,23,26,30)
nuts other small weights (20,31)
nails (20,22,23)
aluminum foil (10,20,23)
tape (22,26,35)
staples (23)
paper clips (23)
white glue (20,23,35)

LIVING THINGS:

pond water samples (8,9)
1 big bunch of *Elodea* per group (11,12,27)
several dozen adult brine shrimp (5)
2 goldfish or guppies 1 in long (5)
2 goldfish or guppies 1 in long per student group (14)
1 goldfish or guppy or 1 crayfish or 1 dozen small snails per group (11)
1 fresh or frozen fish with guts per group (21)