

Making Your Own Weather Instruments

From - <http://teacher.scholastic.com/activities/wwatch/reporters/lab/>

Anemometer

Materials

- Five 3-ounce paper cups
- Two straight plastic straws
- One straight pin
- Scissors
- Hole punch
- Stapler
- Pencil (with eraser)
- Watch with a second hand

Directions

1. Punch one hole in each of four paper cups, about $\frac{1}{2}$ inch below the rim. Color the outside of one of the cups.
2. In the fifth cup, punch four evenly spaced holes about $\frac{1}{4}$ inch below the rim.
3. Take a straw and push it through the hole of the colored cup. Fold down the tip of the straw inside the cup and staple it to the cup on the side opposite the hole.
4. Push the straw through two opposite holes in the four-hole cup. Attach another cup to the opposite end of the straw. Make sure that the second cup faces the opposite direction from the first cup.
5. Repeat the above step with the other two cups and straw.
6. Position the four cups so that they face the same direction — clockwise or counterclockwise. Make sure the cups are all the same distance from the center.
7. Poke a hole in the bottom of the center cup. Push the eraser end of the pencil through the hole.
8. Push the pin through the intersection of the two straws. Then push it into the eraser as far as possible.

Rain Gauge

Materials

- Ruler
- Clear waterproof tape
- Clear jar (at least a quart)

Directions

1. Place the ruler inside the jar so that the inches are visible from outside the jar. Make sure the bottom of the ruler is even with the bottom of the jar.
2. Tape the ruler to the side of the jar.

Wind Vane

Materials

- Empty coffee can or soup can
- Cardboard
- Unsharpened pencil
- Pen cap that fits loosely over pencil end
- Scissors
- Masking tape
- Compass
- Sand or gravel
- Clay

Directions

1. Cut an arrow, approximately 5 inches long, out of the cardboard.
2. Cut a circle, slightly larger than the circumference of the can, out of the cardboard and mark the directions North (N), Northeast (NE), East (E), Southeast (SE), South (S), Southwest (SW), West (W), and Northwest (NW) on it. Poke a hole in the middle, large enough for the pencil to fit through.
3. Push the pencil through the hole, eraser-side first. Stick the eraser into a small ball of clay and place it in the bottom of the empty can. Put sand or gravel into the can to stabilize it.
4. Tape the pen cap to one side of the arrow. Set the arrow on top of the pencil by placing the pen cap over the unsharpened pencil end. Make sure that the arrow is level and that it can spin freely.

Barometer

Materials

- Empty coffee can
- Empty half-gallon jug or carton
- Plastic wrap
- Plastic straw
- Index card
- Tape
- Rubber band
- Pencil and pen

Directions

1. Cover the top of the coffee can with the plastic wrap. Tape the end of the straw to the middle of the plastic wrap.
2. Use the rubber band to secure the plastic in place. Make sure the plastic is taut so that the can is airtight.
3. Place the empty half-gallon jug (or carton) next to the coffee can. Tape the index card to the jug so that the straw lines up approximately to the middle of the card. Use a pen to mark this point on the card, and label it with the date.