

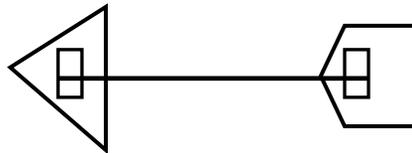
Creating a Wind Vane

Supplies

For each wind vane made, you will need
1 copy of compass rose and arrows on cardstock
straw
tape
new pencil
straight pin
glue
Styrofoam plate
modeling clay
compass

Directions

1. Cut out the arrow shapes and the compass rose. Set aside.
2. Tape arrow shapes to each end of the straw. It should look like this.



3. Press the straight pin through the middle of the straw. Then press the pin into the eraser of the pencil. There should be enough room for the arrows to spin.
4. Center and glue the compass rose to the Styrofoam plate.
5. Place a golf ball sized piece of clay in the middle of the compass rose. Press.
6. Insert the pencil into the clay. Make sure the wind vane is secure. Allow the clay to dry.
7. Wind vane complete!!!!
8. Set the rain gauge outside in a spot free from trees and buildings. Use the compass to insure that the compass rose on the plate is correct.
9. Monitor wind direction. It is best to check the direction at the same time of day for a more accurate reading. Activity sheet below.

Extension Questions for Students

- Which part of the wind vane indicates the direction? (the triangle)
- What is the purpose of the compass?
- Why was the wind vane placed away from trees and buildings? (so that when the wind blows, the trees and buildings don't block the wind causing the measurements to be incorrect)

Extension Activity

- Gather data for a month. Use the information to create graphs.

Georgia Performance Standards

S1CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

a. Raise questions about the world around them and be willing to seek answers to some of the questions by making careful observations and measurements and trying to figure things out.

S1CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Use whole numbers in ordering, counting, identifying, measuring, and describing things and experiences.

b. Readily give the sums and differences of single-digit numbers in ordinary, practical contexts and judge the reasonableness of the answer.

c. Give rough estimates of numerical answers to problems before doing them formally.

S1CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities.

a. Use ordinary hand tools and instruments to construct, measure, and look at objects.

b. Make something that can actually be used to perform a task, using paper, cardboard, wood, plastic, metal, or existing objects.

c. Identify and practice accepted safety procedures in manipulating science materials and equipment.

S1CS5. Students will communicate scientific ideas and activities clearly.

c. Use simple pictographs and bar graphs to communicate data.

The Nature of Science

S1CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.

Students will recognize that:

d. All different kinds of people can be and are scientists.

S1CS7. Students will understand important features of the process of scientific inquiry.

Students will apply the following to inquiry learning practices:

a. Scientists use a common language with precise definitions of terms to make it easier to communicate their observations to each other.

- b. In doing science, it is often helpful to work as a team. All team members should reach individual conclusions and share their understandings with other members of the team in order to develop a consensus.
- c. Tools such as thermometers, rulers and balances often give more information about things than can be obtained by just observing things without help.

S1E1. Students will observe, measure, and communicate weather data to see patterns in weather and climate.

- b. Investigate weather by observing, measuring with simple weather instruments (thermometer, wind vane, rain gauge), and recording weather data (temperature, precipitation, sky conditions, and weather events) in a periodic journal or on a calendar seasonally.

