

Build a Weather Vane

Level



Grades 3-4

Overview:

During this project, students build a working weather vane for use to measure wind direction in another lesson.

Objectives:

The student will:

- use a ruler to measure distance in inches;
- identify basic shapes (rectangle, triangle); and
- construct a simple weather vane.

GLEs Addressed:

Science

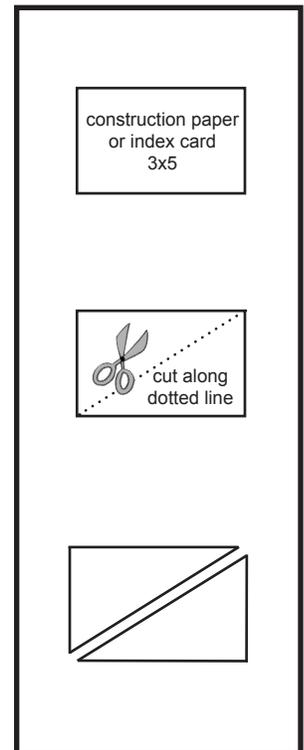
- [3-4] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.

Math

- [3] G1 The student demonstrates an understanding of geometric relationships by using the number or length of sides to identify, describe, [model L], or compare triangles or rectangles (including squares) (M5.1.1).

Materials:

- Construction paper
- Ruler
- Scissors
- Pencil
- Thread spools (1 per student)
- Straws (1 per student)
- Transparent tape
- Skewers (1 per student)
- STUDENT INSTRUCTION SHEET: "Build a Weather Vane"



Activity Procedure:

1. Divide students into pairs. Distribute 1/4 sheet of construction paper, a ruler, a pair of scissors, and a pencil to each pair.
2. Show students how to make a measurement using a ruler. Ask students to cut a rectangle that is 3 inches x 5 inches from the construction paper.
3. Ask students to use the ruler and a pencil to draw a diagonal line from one corner of the 3 x 5 rectangle, to the opposite corner. Ask them to cut along the line to form two triangles.
4. Distribute spools, straws, tape, skewers, and the Student Instruction Sheet "Build a Weather Vane."
5. Lead students through the process of building their weather vanes.

Build a Weather Vane

Student Instruction Sheet

Level



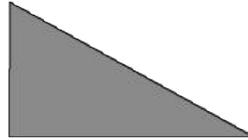
You will need:



Straw



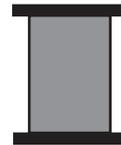
Tape



Flag

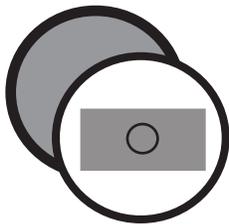


Skewer

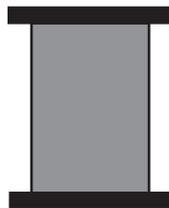


Spool

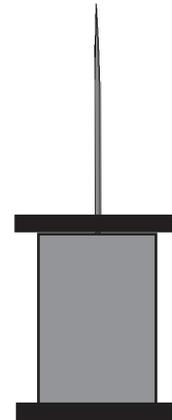
Make a Weather Vane:



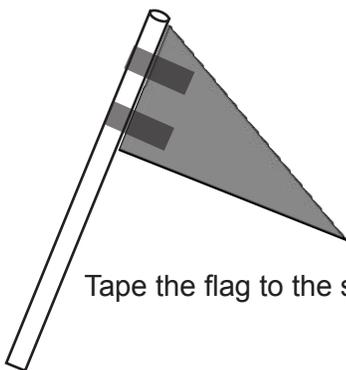
Cover 1 end of the spool with tape. This is the bottom.



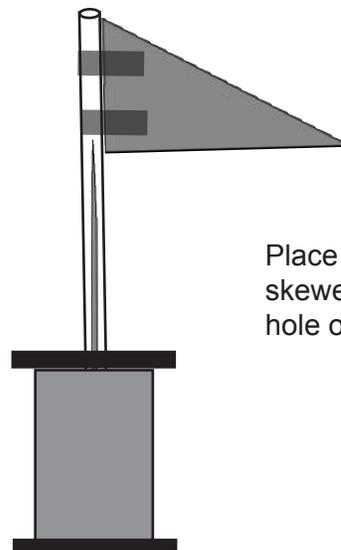
Stand the spool on its bottom (the end with the tape).



Put the skewer in the hole of the spool.



Tape the flag to the straw.



Place the straw over the skewer and through the hole of the spool.