

Weather Scope

Make and Use a Wind Vane to determine Wind Direction

Overview

Knowing the direction of the wind is an important part of predicting weather because wind brings us our weather. A *wind vane*, also called a weather vane, is a tool for measuring wind direction and was probably one of the first weather instruments ever used. To determine wind direction, a wind vane spins and points in the direction from which the wind is coming and generally has two parts, or ends: one that is usually shaped like an arrow and turns into the wind and one end that is wider so that it catches the breeze. The arrow will point to the direction the wind is blowing from so if it is pointing to the east, it means the wind is coming from the east. Additionally, wind direction is where the wind is blowing from. Therefore a west wind is blowing from the west. To use a wind vane, you must know where north, south, east, and west are.

Make a Wind Vane

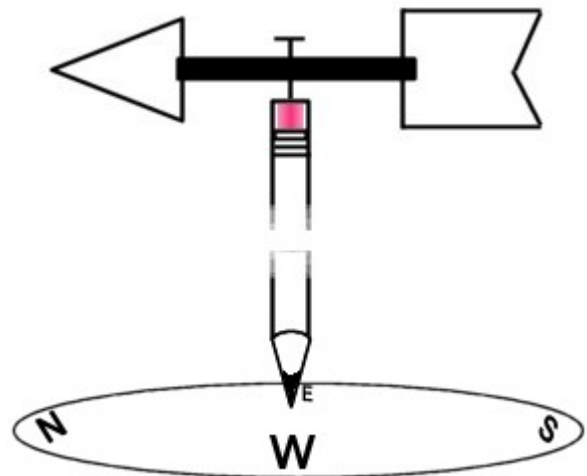
(if you already have a wind vane, you can skip to the [Use a Wind Vane to determine Wind Direction](#))

A. Materials

- Tag board or manila file folder
- Straight pin
- Scissors
- Glue
- Pencil with a new eraser
- Plastic drinking straw
- Modeling clay
- Paper plate

B. Procedure

1. Cut out an arrow point 5cm long.
2. Cut out an arrow tail 7cm long.
3. Make 1cm cuts at the ends of each straw.
4. Slide the arrow point and the arrow tail into the cuts in the straw.
5. Push a straight pin through the middle of the straw and into the eraser end of the pencil.
6. Stick the sharp end of the pencil into a lump of modeling clay; this will be your base.
7. Mark north, south, east, and west on the paper plate
8. Put the clay on a paper plate.
9. Test out your Wind Vane: Blow on the vane and make sure that the arrow can spin freely.



The two photos below show the students from Mrs. Clarizio's fourth grade class in Garfield, New Jersey attaching their wind vanes to model houses that they constructed. Click on the

picture to view a larger image.



Use a Wind Vane to determine Wind Direction

A. Materials

- Compass
- Wind Vane

B. Procedure

1. Place the paper plate on a flat surface and put the wind vane on the plate.
2. Use the compass to show the students where north is so that they can set up their plates facing the right direction. If you have access to a blacktop area, mark the compass points in chalk to make it easier for the students to read the wind direction.
3. Students will observe the vane. If it is very breezy, one student should hold down the paper plate while another takes the direction reading. The arrow will point to the direction the wind is blowing from.
4. Check the direction on the paper plate.