

ANEMOMETER

This paper cup anemometer can help teach kids about wind science.

INSTRUCTIONS:

STEP 1: Use the hole puncher to make two holes across from each other, in each of your cups.

STEP 2: Push the straw through the holes so that you have two cups on each straw. (all must face same direction)

STEP 3: Push your nail through each straw and then into the eraser of your pencil. Put the pencil into the cup.

STEP 4: Tape the intersection of the two straws.

STEP 5: Take outside on a windy day and see what happens!

SUPPLIES

4 Paper cups
2 Straws
A nail
A pencil
Tape
Hole puncher
Cup with a straw hole

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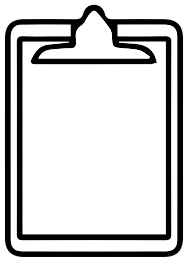
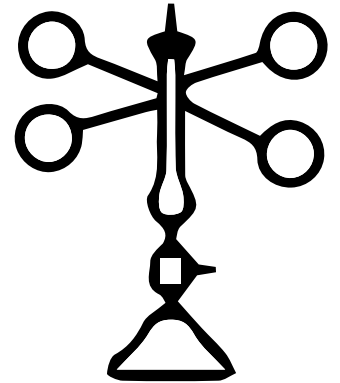
An anemometer is a device used to measure the speed and direction of wind. There are different types of anemometers, but the most common type is the cup anemometer.

A cup anemometer has three or four cups attached to a vertical axis. When the wind blows, the cups rotate around the axis. The speed of the cups is proportional to the wind speed, and the anemometer can measure this speed using sensors or mechanical devices.

An anemometer can also measure wind direction using a wind vane or a weather vane. The wind vane is a flat or arrow-shaped plate that is mounted on top of the anemometer. The vane is free to rotate horizontally, and it always points into the wind, providing information about the wind direction.

Anemometer Observations

Use this worksheet to process and evaluate your work.



RECORD

What do you think will happen when the wind blows?

What did you observe? Did the anemometer behave the way you thought?

Why do you think the cups should face the same direction?

Do you think a faster wind makes the anemometer spin faster?

What did you learn about anemometers and wind?

