

Windy Weather

Summary

Make wind detectors with paper plates, ribbon, and streamers. Go for walks over an extended period of time to observe and record the effect of the wind on the detectors and other observable objects (leaves, grass, etc.).

Time Frame

1 class periods of 30 minutes each

Group Size

Large Groups

Materials

- paper or plastic plates
- hole punches
- ribbon or streamers
- glue

Background for Teachers

Air moves from high-pressure areas to low-pressure areas. This movement of air is known as wind. The greater the difference in pressure between the two areas, the stronger the wind will be. Students can observe the wind by feeling, hearing, and seeing its effect on the things around them.

Intended Learning Outcomes

- Display a sense of curiosity.
- Share ideas using communication skills.
- Use appropriate language to describe events, objects, people, ideas, and emotions.

Instructional Procedures

1. To introduce the lesson, have students spin in a circle with their arms out. They will feel the air passing by their fingers as they turn. Talk about the sensation of air moving around them.
2. Ask students to describe air movement they have felt outside. As a class, explore ideas about wind: Do we feel it everyday? Is it always the same temperature? How does wind affect rain? How does it affect snow? Does it cool things off or warm them up? Are some places windier than others? What kinds of things are affected by the wind? What kinds of things are not?
3. Ask students to brainstorm ways they could measure the movement of wind. What types of instruments could they use? How would they measure strong versus light wind?
4. Explain that today they are going to make one type of wind "detector". Show students the types of materials they will be able to use, and encourage them to think about how to make their wind detectors. After a few moments of think time, give each student access to materials listed above and let them create their own wind detectors.
5. Take a walk outside, carrying wind detectors. Observe the effect of the wind on the detectors. Also note the effect of the wind on trees, leaves, litter, fences, and anything else in the area.
6. Return to class and discuss some of the things the students observed. It would also be a good time to talk about changes the students could make, if any, to their wind detectors. (Revisit questions from #2.) Start a Wind Journal. List on the board the things you would like your students to include in their journals, such as: drawings of what their wind detectors looked like, written descriptions of what they

observed, drawings or descriptions of other objects affected by the wind, or descriptions of how the wind felt. Repeat the walk each day for a week or as long as desired. Complete a Wind Journal entry following each excursion.

7. After taking your desired number of walks, look at Wind Journals as a class. Talk about the differences in the wind from day to day. What happened when the wind was strong? How many days did you experience wind? Did the wind feel warm? Did it feel cold? Did the weather outside affect the wind? Did the wind affect the weather? Are your wind detectors good instruments for measuring the wind? Could we do anything to make them better? If so, what?

Strategies for Diverse Learners

Students with a limited vocabulary may not develop a concept of wind from the introductory activity. A teacher supervised demonstration of wind using an electric fan and light weight streamer will be helpful. Depending on your climate and the time of year, wind may not blow frequently. Take advantage of a blustery day! Students with a limited vocabulary have a more difficult time drawing on background information unless they have a clear picture of what it is you are describing.

Extensions

Explore the energy of the wind by placing a windsock outdoors in a visible place and observing it often. Keep a record of windy days and which things move in the wind. Make a list of objects which are not normally moved by the wind.

Explore the relationship between wind and weather further. Observe and record frequencies of storms and windy days, sunny days and wind, etc.

Read stories about the wind: *The Wind Blew* NY: Scholastic. ISBN 0-590-46632- 1. Rhyming text tells of all the things the wind blew up and down on its way out to sea. Santrey, L. (1982). *What Makes the Wind?* NJ: Troll Associates. ISBN 0- 89375-585-0. Describes different kinds of winds and the effects they can have on Earth.

Winter Wind by Margaret D. Larson.

The wind is a lion, I hear him roar.

He rattles the window and slams the door.

He whirls the snow and piles it high.

He chases the clouds across the sky.

The trees feel him blow, and they bend and sway

Right down to the earth, to get out of his way.

He hurries past houses and on down the street.

He howls with glee if the rain turns to sleet.

And when all the people hurry and run,

The wild wind laughs for he's having fun.

Assessment Plan

Immediately following each walk in the wind with wind detectors, have students describe their experience outdoors using words and pictures. This will be their "Wind Journal" and can be assessed using the corresponding rubric (attached). Students should describe things such as what objects were affected by the wind, what their wind detectors looked like, and what the wind felt like to them.

Rubrics

[Journal Rubric](#)

Authors

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