



#8815

# METEOROLOGY: THE MYSTERY OF WIND

Grade Levels: 1-6

13 minutes

ALLEGRO PRODUCTIONS 1999

## DESCRIPTION

Here's a riddle: What can you hear and feel, but not see or hold? The wind, of course! Investigate the mystery of wind: what it is, where it comes from, how we use it, and how it shapes our lives and the world around us. Learn about good versus destructive winds, and check your knowledge with a review.

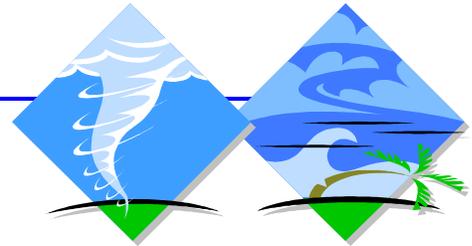
## ACADEMIC STANDARDS

### Subject Area: Science

- ◆ Standard: Understands atmospheric processes and the water cycle
  - Benchmark: Knows that air is a substance that surrounds us, takes up space, and moves around us as wind

## INSTRUCTIONAL GOALS

1. To understand what is wind and what causes it.
2. To see an example of two local winds.
3. To know how the wind and ocean are linked.
4. To see how the wind changes shape of things.
5. To explain how wind distributes plant life, heat, and nutrients.



## SUMMARY

The wind is so common we either ignore it or take it for granted. We never think about what the wind is or what causes it. But the wind plays a very critical part in our lives here on Earth. The wind distributes plant life by scattering spores, pollen, and seeds. It also helps to energize the oceans and distribute heat and nutrients.

This program defines *wind*, explains what makes air move, and illustrates how the sun heats the Earth's landmasses, oceans, and the air above them at different rates during the day. See an example of two local winds and how the spin of the Earth affects these winds.

The link between wind and the oceans is demonstrated. See how winds shape the clouds and what the different types of clouds look like, and how the wind changes the shape of things on Earth.

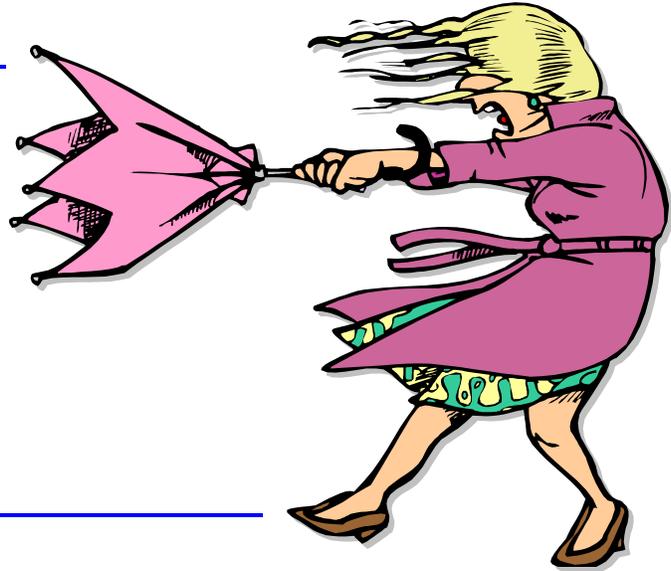
The program also discusses hurricanes, tornadoes, and cyclones.

Learn that without wind, most of the Earth would be uninhabitable, the tropics would grow too hot and the rest of the planet would freeze. See how the Earth's atmosphere sustains life because of the planet's winds.

## **VOCABULARY**

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1. atmosphere
2. carbon dioxide
3. cyclone
4. gravity
5. hurricane
6. nitrogen
7. oxygen
8. tornado
9. typhoon



## **AFTER SHOWING**

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### **Discussion Items and Questions**

1. What is *wind*?
2. What does Earth have that nearby planets like Mars and Venus do not have?
3. How does the wind help plants to spread their spores, pollen and seeds?
4. What is the connection between the wind and the oceans?
5. Name two types of dangerous or extreme winds.

### **Applications and Activities**

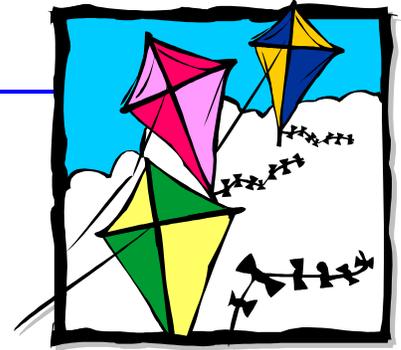
1. The program illustrates several forms of recreation that depend on the wind, such as sailing and gliding. Make a list of other activities and sports that rely on the wind.
2. Use a model airplane to show how its design, especially the shape of its wings, takes advantage of the wind.
3. If there is an area nearby where rocks are exposed, take the class there and ask students to find examples of rocks that have been marked or smoothed by the wind.
4. Assign a project of drawing and writing about windmills and how they work. Explain how some windmills turn wind into electricity.
5. Imagine what the wind looks like and draw a picture of the wind. Compare the pictures and have students explain their interpretation. Write a story that includes the character named Wind.
6. Build a class kite and fly it. But first, find out what are good designs for kites. Have students draw their design for the perfect kite and explain why the design is good. Then have the class vote for the best design and build it.
7. Assign a team of wind watchers to check the direction and speed of the wind in the newspaper every day for a month and chart it. Have the team document the weather conditions on each day as well.

## RELATED RESOURCES



### Captioned Media Program

- Weather, A Film for Beginners #2141
- Wind: A First Film #3197
- Wondering About Air #2148



### World Wide Web



The following Web sites complement the contents of this guide; they were selected by professionals who have experience in teaching deaf and hard of hearing students. Every effort was made to select accurate, educationally relevant, and “kid-safe” sites. However, teachers should preview them before use. The U.S. Department of Education, the National Association of the Deaf, and the Captioned Media Program do not endorse the sites and are not responsible for their content.

- **BLUSTERY BEGINNINGS**

<http://sln.fi.edu/tfi/units/energy/blustery.html>

From the Franklin Institute Online, click on “Photo Gallery” to help understand that wind is invisible; “Video Gallery” for sensory perceptions of wind; “Windy Things to Make” to catch the wind using common, ordinary classroom materials, and others.

- **THE HURRICANE HUNTERS**

<http://www.hurricanehunters.com/>

A squadron flies right into the eye of hurricanes. To see photos, click on “inside the hurricanes.” Presents “Ask a Hurricane Hunter,” “Hurricanes: Past Seasons,” and other topics.

- **20 KIDS, 20 KITES, 20 MINUTES**

<http://www.aloha.net/~bigwind/20kidskites.html>

For over 15 years the Big Wind Kite Factory has been giving kite-making classes for the children on the island of Hawaii. Provides time-tested instructions to get 20 kids to make their own kites and to fly them in 20 minutes.