



K-2 Earth Science

Southern Nevada Regional Professional Development Program

What is wind?

INTRODUCTION

On our planet air is always moving from one location to another due to various physical interactions. Moving air is called wind. Wind is what causes changes in the weather.

WHERE'S THE SCIENCE?

On a normal spring day in Las Vegas the sun shines and warms the land and transfers heat to the air above. The air starts to expand and becomes less dense. This localized less-dense air is what meteorologists call a low-pressure area because there is less air to apply pressure. At the same time over the Pacific Ocean the water doesn't heat up as fast as the land. As the water evaporates it cools the environment even more, so there is even less energy in the air. This means that the air doesn't expand. The denser air pushes with greater force, this is what meteorologists refer to as high-pressure. The air from the high-pressure area rushes to the low-pressure area to balance the atmosphere. This rushing air is what we call wind.

MATERIALS

- Feather
- Cotton ball
- Rock
- Paper (2 x 2-inch)
- Straw (cut in ½)
- Prediction sheet

PROCEDURES

1. Discuss the wind. Ask the children:
 - a. Who has felt the wind blowing of their face?
 - b. Who has seen the blowing wind move an object?
 - c. What is wind? (moving air)
2. Ask the students how they can make wind (blowing with their mouths).
3. Hold up each of the items one by one. Ask the students to identify the item, next pass the item around. Ask the students if they think the wind they make could move the item.
4. Have the students record their predictions by circling yes or no on their prediction chart.
5. Test each item using the straw on a flat surface.
6. Discuss predictions and results.

Additional Resources

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

The Franklin Institute site- excellent activities, photos, video clips, and book list.

<http://en.wikipedia.org/wiki/Wind>

Wikipedia, free encyclopedia, lots of background information

www.energy.gov/energysources/wind.htm

Dept. of Energy-wind

www.eere.energy.gov/windandhydro/windpoweringamerica/wind_maps.asp

Dept. of Energy-state wind resources maps

Nevada State Standards

E2A3 Students know weather changes from day to day and seasonally. I/S

E2A4 Students know weather can be described by measurable quantities such as temperature, wind direction and speed, and precipitation. I/L

Name: _____

Will the wind move it?

Feather Yes NO

Cotton Ball Yes No

Rock Yes No

Paper Yes No

Did the wind move it?

Feather Yes No

Cotton ball Yes No

Rock Yes No

Paper Yes No