Air Currents and Wind

*What to do:* Sprinkle the powder on the cloth and shake a little of it near the unlit lamp. Notice what happens. Then light the lamp. After a few minutes, when it is hot, shake some more powder off the cloth.

*What happens:* Before you turn the bulb on, the powder sinks slowly down through the air. After the bulb is hot, the powder rises.

*Why:* The air, warmed by the lighted bulb, rises—carrying the powder with it. The denser, cooler air sinks. This is what happens in nature, too. Warmer air pushes upward because it is less dense, and cooler air flows in to take its place.

Air that moves up and down (vertically) is called an air current. Wind is air that moves on the same level (horizontally).

The speed of the air currents and the wind depends upon how much the temperature of one region differs from another. The direction of the wind depends on the location of these areas.

**YOU NEED**
- talcum powder
- piece of cloth
- unshaded lamp