Air

Interdisciplinary learning activities

Science

- Show that an empty, clear plastic soda bottle is not really empty but full of air. Place it under water and observe the air bubbles that come out of the opening.
- Identify objects that are full of air.
- Explain that a wind or breeze is really the movement of air.
- Discuss what would happen to Earth if it were not surrounded by air.
- Research other planets and moons in our solar system that have some type of air (atmosphere). Could humans live there? Does weather exist there?
- Collect a variety of natural and synthetic objects. By tossing and dropping the objects, test which ones stay in the air the longest. Discuss why certain objects "float" longer than others.
- Observe clouds forming. Point out that clouds are formed by changes in temperature and the motion of air.
- Watch weather information broadcasts at home or school. Record the wind information for your locality for a week, also record the type of weather (hot, cold, stormy, rainy, etc.). Discuss the relationship between wind and the rest of the weather for the week.

Mathematics

- Measure how much a student can inflate a balloon with one breath of air. Measure the balloon's circumference after each breath.
- Fill up various sizes of balloons with air and determine which balloon stays in the air longer when released. Discuss why.
- Count the number of breaths it takes to inflate a balloon. Compare that number with other students in the class. Graph and discuss the results.

Fine Arts

- Draw pictures of how things look when the wind (air) blows across them (examples: trees bend, leaves float, lakes become wavy).
- Make paper spirals and hang them in the classroom. The spirals will move with the air currents in the room.
- Discuss musical instruments that use the force of air (wind instruments such as flute, saxophone, oboe, horn, and harmonica).

Technology Education

- Design a kite, parachute, or parasail using household items.
- Invent and build an air-driven device using household items.
- Explore objects and materials you can use to move air, such as paper fans, straws, and pinwheels.
- Determine what devices move air in your home and your school (examples may include air conditioners, heaters, fans in computers and other equipment).

Social Studies

- Make a collage showing objects and machines from different cultures that harness the power of air.
- Invite a person whose job deals with air, such as a meteorologist or a pilot, to speak to the class about his or her profession.

Language Arts

- Read about and discuss air as a force in fantasy, such as in books like *The Three Little Pigs,The Wizard of Oz, Alberto and the Wind, and A Windy Day*. Compare air in fact and fantasy.
- Keep a journal for a week or two that keeps record of the direction and force of the wind near your home and/or school. Also add temperature and air quality. Do different types of weather come from different directions?
- Write a story about what happens on a very windy day.
- Write a letter to local meteorologists asking questions about air and weather.

Health/Physical Education

Try different ways to feel the air:

- Run with streamers.
- Place a paper bag on your arm and move your arm back and forth.
- Use a small parachute in the school gymnasium to observe how it slows down falling objects.