



Get ready to be dazzled by a series of experiments that feature the awesome power of gas: Air, hot air, air pressure, moving air, smoke and suction are all up for demonstration.

SUMMARY:

You think homework is pressure? Just wait until you learn how the weight of the earth's atmosphere pushes down on you with the force of two elephants! Explore how Bernoulli's principle creates enough lift to make a jumbo jet fly or how air pressure can be used to launch a hot air balloon. Watch in amazement as our vortex generator creates giant smoke rings. Want even more pressure? Take a ride on our amazing Mad Science Hovercraft! Mad Science shows are fun and educational and this program will leave you flying high! This spellbinding special event introduces children to the principles of air and pressure. Hot air balloons, vortex generators and even a hovercraft will help children understand the power of air.

EDUCATIONAL VALUE:

This program introduces children to the exciting science of air pressure and a host of associated scientific concepts including aerodynamics, the science of flight, thermodynamics, and Bernoulli's principle. Children learn that air is all around us, and vital to life on Earth.

TAKE-HOME MESSAGE:

- 1 The air around Earth pushes on us. It is called the atmosphere.
- 2 High-pressure air moves towards low-pressure air until they balance.
- 3 Bernoulli's principle states that the faster a gas flows, the less it pushes.

NORTH CAROLINA ESSENTIAL STANDARDS:

- K.P.2.1 Classify objects by observable physical properties (including size, color, shape, texture, weight and flexibility).
- 1.P.1 Understand how forces (pushes or pulls) affect the motion of an object.
- 2.P.1.1 Illustrate how sound is produced by vibrating objects and columns of air.
- 3.P.1 Infer changes in speed or direction resulting from forces acting on an object.
- 3.P.2.1 Recognize that air is a substance that surrounds us, takes up space and has mass.
- 5.P.3 Explain how the properties of some materials change as a result of heating and cooling.

