I.D.E.A. KIT

Hoop Glider

What You Need

Paper	Ruler
Scissors	Pencil
Tape	Drinking straws (non-bendable)

What You Do

1. Cut two strips of paper. Make one strip one inch by five inches in size. Make the second strip one inch by ten inches.
2. Curl each paper strip into a hoop. Tape the ends together. Now you have one big hoop and one small hoop.
3. Tape the small hoop to one end of the straw.
4. Tape the big hoop to the other end of the straw. Make sure the big hoop lines up with the small hoop.
5. Hold your Hoop Glider in the middle of the straw, with the small hoop in front. Throw it gently like a spear. It might take some practice to get the hang of it!

Questions to ask

- *How far does your glider fly?*
- *How could you help it glide farther?*

What's the Science?

If you throw a plain straw, it doesn't go very far. But when you add paper hoops, the straw glides through the air. That's because the hoops act like winds. Things that fly, such as insects, birds and airplanes, all have wings. However, winds are not all the same shape and size. Different wings can be better for different types of flight. For example, an eagle has long, wide wings that help it glide. An airplane has wings with small flaps that move up and down to turn the plane.

Try This

Use science vocabulary: Use related science words such as glide, wing, flight and experiment and predict as you talk and play together. Children learn new vocabulary words when they hear grown-ups use them in context.

Extend your experiments: Choose one thing at a time to change on your hoop glider and predict what you think will happen. Try making the straw smaller, changing the size of the hoops, or adding a third hoop! Remember to only change one variable at a time, to determine what effect each change has on your glider.

Keep in Mind

- Children are natural scientists; let them lead the way in their experimentation! Encourage them to ask questions and make suggestions only when they are stuck/discouraged.
- The order suggested is not the only right or perfect way. Adjust the activities based on the age, ability, and interests of the children.

Additional Resources

Rosie Revere, Engineer by Andrea Beaty
Mad Margaret Experiments with the Scientific Method by Eric Braun

imagination STATION
pure science. pure fun.