

Parents in the Knov

Focus on Science

Everyday Science

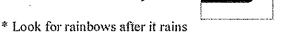
Science should be part of your child's everyday life. There are many opportunities to explore. Following are everyday activities that will help your child develop scientific skills.



Earth, Wind, and Sky

There are many things your can do inside and out to learn about the Earth, wind, and sky.

- * Fly a kite
- * Read a weather thermometer
- * Watch and discuss the weather
- * Keep a journal tracking daily weather patterns
- * Play shadow tag (try to tag someone's shadow)
- * Make shadows using a flashlight
- * View the planets at night
- * Look for stars in the sky



All of these ideas are based on: "Sharing Science with Children: A Guide for Parents", North Carolina Museum of Life and Science, http://www.alaa.org/kidsplace/kidsplacepdfs/Parents.pdf

Plants and Animals

A science museum of plants and animals is right outside of your door. Some things you can do with your child:

- * Watch a spider spin a web
- * Look for animal tracks
- * Follow the stages of a caterpillar becoming a butterfly
- * Catch and release lightening bugs
- * Plant a tree
- * Grow a vegetable garden
- * Compost
- * Water flowers
- * Examine the parts of a flower



Physical and Chemical Properties

Change is all around us. Try these simple examples:

- * Ice melting
- * Sugar dissolving in coffee
- * Toys sinking or floating in the bathtub
- * Sponge filling with water
- * Steam coming off of a pot of hot water
- * Blow bubbles



Discuss why and how things change. If you're not sure, look it up at the library or on the Internet.



What Research Says

The National Science Teachers' Association has found that parent involvement in their child's science education is crucial. Parent involvement in their child's education results in more confident and successful learners. They recommend that parents:

- 1. Get to know your child's teacher and communicate regularly.
- 2. Encourage your child to get involved in extracurricular activities such as science or Earth clubs.
- 3. Ask about what your child is learning in science and support her learning at home.
- 4. Set high expectations for your child.

Based on: "Parent Involvement in Science Learning: National Science Teachers" Association Position Statement*, http://www.nsta.org/about/positions/parents.aspx

Focus on Science

The Scientic Method

Children begin to learn about concepts related to the scientific method in early elementary school. Things they are learning and questions you can ask include:

1. Observation

How do you know that?

2. Sorting and organization

How can we group these objects?

3. Comparison

Are these items the same or different?

4. Prediction

What do you think will happen?

5. Experimentation

How can we find out?

6. Inference

What did you learn?

Based on: Ellen Booth Church, "Let's Investigate! Spark Interest in Science with These Seven Steps to Successful Studies", Scholastic Parent & Child, http://www2.scholastic.com/browse/article.jsp?id=639

Reading about Science

There are many good science series for elementary students. Some include:

Let's Read and Find Out, by Harper Collins
The Magic School Bus, by Joanna Cole
Look Once, Look Again, Science and Life Cycle
Series, by David Schwartz
World of Nature, by Ruth Heller

Poetry Corner

There are many different types of books to help your child learn about science. Poetry, riddles, and rhyme are fun ways to review scientific concepts. Some books include:

<u>Scien-Trickery: Riddles in Science</u>, by J. Patrick Lewis (Grades 1-4)

The Science Zone: Jokes, Riddles, Tongue Twisters & Daffynitions, by Gary Chmielewski (Grades 1-4)
Science Verse, by Jon Scieszka, (Grades 3-5)
Spectacular Science: A Book of Poems, by Lee Bennett Hopkins, (Grades 2-6)

How Children Learn

Children are able to learn different things at different times. The following information should help.

Early Elementary (Ages 6-8)

Can make predictions and test them
Learns through discussion
Applies past experiences to current situations
Often uses trial and error to solve problems
Enjoys "hands on" learning

Upper Elementary (Ages 9-12)

More advanced problem solving skills
Continues to enjoy "hands on" learning
Looks for relationships between events
Uses resources to gain information (books, Internet, etc.)
Can use a variety of science equipment (microscope, scale, etc.)

Based on: "Sharing Science with Children: A Guide for Parents", North Carolina Museum of Life and Science, http://www.aiaa.org/kidsplace/kidsplacepdfs/Parents.pdf

"Equipped with his five senses, man explores the universe around him and calls the adventure Science."~ Edwin Powell Hubble

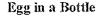
Experiments to Try at Home

Fish Tank

(2 liter bottle, water, liquid detergent, blue food coloring, sand, 2 small balloons)

- 1. Fill bottle 1/4 with water
- 2. Add a few drops of food coloring and a drop of liquid detergent
- 3. Pour in a small amount of sand
- 4. Fill balloons slightly
- 5. Put balloons in bottle and cap
- 6. Shake the bottle to watch the fish swim

Based on: "Science for Children", www.stepbystepcc.com/science.html



(1 hardboiled egg, glass jar with mouth slightly smaller than the egg, 3" x 3" piece of newspaper, a match)

- 1. Peel egg and put on top of bottle
- 2. Fold paper to fit in bottle
- 3. Parent lights paper and puts in the bottle
- 4. Put the egg back on top
- 5. Watch what happens!

Based on: "Egg in a Bottle", Home Experiments on scifun.org, http://scifun.chem.wisc.edu/HomeExpts/EggInBottle.htm

Images provided by clipart.com