Preschool Science

Combining Literacy and Science to Make Learning Fun for Young Children!

Science and Books

Children enjoy science... The picture books for the youngest readers (and nonreaders) provide a wonderful opportunity for shared learning experiences. Children naturally enjoy listening to, and discussing stories. Sharing books frequently with young children is one of the most effective ways to develop literacy at an early age. Reading to a child is the most important things that helps children become good readers. Reading a beautifully illustrated and accurate science book to a child opens up a world of wonder to them. Having children listen to and respond to science stories and science poems appears to be one of the most beneficial means of extending and developing their science literacy. Reading good science books to children challenges their thinking on many different topics. As they grow, it is important to provide children with interesting books that they can read and enjoy on their own, for this is the habit that leads to lifelong learning.


Why Is Science Important?

A young child starting preschool brings a sense of wonder and curiosity about the world. Whether watching snails in an aquarium, blowing bubbles, using a flashlight to make shadows, or experimenting with objects to see what sinks or floats, the child is engaged in finding out how the world works.

It is not exaggerating to say that children are biologically prepared to learn about the world around them, just as they are biologically prepared to learn to walk and talk and interact with other people. Because they are ready to learn about the everyday world, young children are highly engaged when they have the opportunity to explore. They create strong and enduring mental representations of what they have experienced investigating the everyday world. They readily acquire vocabulary to describe and share these mental representations and the concepts that evolve from them. Children then rely on the mental representations as the basis for further learning and for higher order intellectual skills such as problem solving, hypothesis testing, and generalizing across situations.

While a child’s focus is on finding out how things in her environment work, her family and teachers may have a somewhat different goal. Research journals, education magazines, and the popular press are filled with reports about the importance of young children’s development of language and literacy skills. Children’s natural interests in science can be the foundation for developing these skills.

From: Conezio, Kathleen and Lucia French. “Science in the Preschool Classroom: Capitalizing on Children’s Fascination with the Everyday World to Foster Language and Literacy Development.” Young Children, September 2002.

RIF Pittsburgh

Reading Is FUNdamental (RIF) Pittsburgh is excited to announce the launch of our first ever science-themed Books for Keeps Program! The goal of RIF Pittsburgh’s Books for Keeps Program is to put books directly in the hands of children, while helping to create environments that encourage a lifelong love of reading. By engaging children in fun, hands-on science activities that complement our regular Reading Celebrations, we hope to make a meaningful impact in reading and learning motivation.

To learn more, visit www.rifpittsburgh.org

Turn over for fun ideas you can try at home!
**Bug Off!**

Bugs are all around us! Although sometimes these creepy, crawly critters can be annoying, they are a natural source of wonder for young children. Bug boxes are a great way for young children to look at these cool creatures up close. Help your child scoop a bug into a jar (with air holes poked for breathing) so that he or she can see the bug in action. Even better, let your child use a magnifying glass to examine the bug up close. Of course, don’t leave your bug trapped in the jar for too long. Let your child observe bugs in their own natural habitat!

**Get Yourself Moving!**

A great way to start talking to your child about science is by examining the way his or her body moves. This is a great lead-in to talking about health topics. What does that mean to a kid? Talk to your child about why it’s important to eat healthy, make your own healthy snacks, and even let your child help you. And of course, exercise! By exercising with your child, you encourage your child to think about his anatomy, observe his or her muscle movements, and learn about how to stay healthy. So turn on your favorite dance music, and have plenty of water ready. Try aerobic exercise, kid-friendly yoga, running outside, or whatever gets your heart moving. This is a great activity for the whole family!

**Crazy Colors**

Here is a fun and easy experiment about color mixing that you can try with your kids at home!

**Materials:**
- Milk (room temperature)
- Food coloring
- Dish Soap
- Large, flat pan or Cookie Sheet
- Toothpick or Cotton Swab

**Directions:**
1. Fill the pan with room temperature milk (not cold!).
2. Squirt the food coloring in different areas of the milk.
3. Dip your toothpick or cotton swab in the dish soap and touch it to the milk in the places where you put the food coloring.
4. Watch the colors swirl!

**Science Walk**

Science is everywhere! The next time you go on a walk with your child, let him or her use a small bag to collect interesting objects such as leaves, grass, sticks, dirt, rocks, etc. Take your treasure over to a table and dump it out. Now use magnifying glasses or just your own fingers to examine the objects. Encourage your child to use all five senses to observe the objects. Talk about the similarities and differences of the objects that he or she collected. Talk about the different textures, colors, smells, sounds, and shapes of the objects. You can even take pictures of the items so that later your child can “collect data.” Every time you go on a walk, you can find new and exciting things to look at. Keep on exploring!