



## Science for Young Children

---

Why is the sky blue? What makes the leaves change? Young children ask a lot of questions, and some of them are hard for us to answer. How we respond really matters to children. When we're busy it can be tempting to say, "You ask too many questions." But children are quick to pick up on our negative attitudes and over time might learn to suppress their curiosity. This can be a great loss. So how do we best answer children's questions? Start with a question of your own: "What do you think?" Then take the time to really listen to your child. Put their ideas into your own words. "You think that angels like the color blue so they painted the sky that way." A conversation can take an unexpected turn when you take the time to really listen. This type of response is also much more satisfying to children.

Sometimes children are really looking for a scientific answer. Some of us might have the answers, but most people have a hard time answering these questions with accurate scientific information.

**The best approach is to say, "Let's find out." This teaches not just the answer to the question but three other things as well:**

1. That the child's question is really important and it is worth taking time to answer it
2. That you can answer questions by reading books, using the Internet, asking your local librarian for help, or asking friends and family
3. That learning things together is interesting and fun

One boy, Darnell, was interested in the creatures in the ocean, and he wondered about sea monsters. After reading a book, he became interested in whales and asked a lot of questions about whales, including "Why do whales sing?" His mom didn't know much about whales, but she wanted to encourage him, so she took him to the library to get books on whales. They cuddled together when she read to him about whales, and they enjoyed this time together. Darnell learned what people think about why whales sing, but this didn't satisfy his curiosity; instead he thought of more questions. This is the way scientists think: every answer leads to new questions. Darnell's mom set her son on the road to being a thinker and a learner. He is developing good feelings and attitudes towards learning.



## Great Science Books for Kids

Have you read any good science books with your child? The number of great science books for kids has just skyrocketed, and you can find something that will interest any child. There's a great set of books designed for children ages 8-12 by a publisher called DK. Their eyewitness series is designed with many wonderful photos that you can share with your kids. Topics include dinosaurs, animals, birds and fish, weather, volcanoes and earthquakes, and space. These are ideal books to borrow from the library.

If your child is interested in animals, look for an animal encyclopedia. These books usually have a listing for a large number of animals with a short entry describing the animal's home, what it eats, and other details. Usually there are good pictures as well. Children learn to look up things for themselves and become familiar with how to use encyclopedias, dictionaries, and other reference books.

Another good series is called "Let's Read and Find Out." This series has some very simple science books designed for the youngest of learners. A few of their stage 1 books include *Look at Your Eyes*, *Sleep is for Everyone*, *Bugs are Insects*, *Baby Whales Drink Milk*, *Our Puppies are Growing*, and *Snow is Falling*.

For older children, the *Magic School Bus* series is fun. It's about a whacky teacher who takes her class on magical science field trips like getting baked inside a cake or going inside the human body. The stories are entertaining and the science is made a part of an imaginative adventure.

There are many more worthwhile science books for young children. Ask your librarian for books that might be of interest to your child.

## Getting Your Child Off to a Good Start in Science

Early childhood is the perfect time to start a good foundation for science with your child. You have probably already begun to help your children understand science concepts. Have you ever visited a farm with your child? Or grown a garden? These are great experiences to help children understand where food comes from. Preschool children are at a perfect age to learn about living things: what they need to live and how they grow and change. Help your child notice that what people need (air, food, and a place to live) are what animals need to survive as well. Watch puppies, tadpoles, or any other animal grow from a baby to a full-grown living creature.

Young children are also ready to learn some basics about the world. They can learn about how liquids flow by helping you wash dishes. They can learn about movement by playing with toys with wheels, and can learn about gases from watching you blow up a balloon. Playing with sand and water help children understand how their world works. All these experiences help children understand scientific ideas they will learn about later.

You can help your young child begin to learn about earth and space. Take her outdoors to learn about soil, rocks, hills, streams, rivers, and mountains in a first-hand way — the best way for children to learn. Talk about the natural resources we get from our earth: wood for making things, plants to eat. This leads naturally to talking about saving and recycling. Children can help recycle newspaper, plastics, and metal, or to make compost. You can also talk about space with your child—about our planet, the sun and moon and stars. Science with young children can be simple, fun, and part of your everyday life.



PENNSTATE



College of Agricultural Sciences  
Cooperative Extension

Supported by funds from the Office of Child Development and Early Learning, a joint office of the Pennsylvania Departments of Education and Public Welfare.

**This publication is available in alternative media on request.**

Penn State is committed to affirmative action, equal opportunity and the diversity of its work force.

Developed by the Penn State Better Kid Care Program  
253 Easterly Parkway, State College, PA 16801 • Phone: 800-452-9108 • Website: [betterkidcare.psu.edu](http://betterkidcare.psu.edu)

Dr. James E. Van Horn, Better Kid Care Program Director, Lyn Horning, Assistant Director of Programs

Copyright © 2008 The Pennsylvania State University