3. **Girls are just as curious as boys.** Experiment with hand tools or water play with cups in the bathtub. Ask her to describe what happens and figure out an explanation for what she notices. Chemistry sets or tool sets are great toys for girls as well as boys.

4. **Hands-on works best.** Take your child to the science museum, a nature center or zoo where they can do hands-on exhibits and have fun while they learn.

5. **Take things apart to see how they work.** Look at the insides of an old remote control, a broken wind-up toy or a battery-operated gadget.

6. **Find positive role models** in science and technology careers. Ask friends or family members in science or technology to talk to your child or give a tour of their worksite.

7. **Younger children develop reading readiness and science readiness** at the same time. Use reading time to incorporate science and math skills: "How many bunnies are in the orchard?" What shapes are the same on this page?" "What do you think would happen if …?"

Source: Science Museum of Minnesota, edited.

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301 Centennial Mall South
Lincoln, NE 68509

Science Resources

Family Science Family Science programs offer opportunities for parents and children to work and learn together. Hands-on activities that use easy-to-find, inexpensive materials let families explore the ways in which science and engineering play a role in daily life. http://integraonline.com/~familyscience.org/home.html

National Aeronautics and Space Administration (NASA) NASA's mission is to pioneer the future in space exploration, scientific discovery and aeronautics research. http://www.nasa.gov/offices/education/programs/national/semaa/familycafe/index.html

National Science Teachers Association (NSTA) The National Science Teachers Association (NSTA) is the largest organization in the world committed to promoting excellence and innovation in science teaching and learning for all. http://www.nsta.org/portals/parents/?lid=por

Omaha's Henry Doorly Zoo Education Department The zoo offers many educational programs for kids and adults of all ages. The activities include school-involved programs, special "edzoocational" programs, zoo internships, animal-adoption and volunteer work as well as field trips, guided tours, educator workshops and two-way internet video conferencing to bring the zoo to the classroom. http://www.omahazoo.com/index.php?p=education

Science Olympiad Science Olympiad is a national non-profit organization dedicated to improving the quality of K-12 science education, increasing male, female and minority interest in science, creating a technologically-literate workforce and providing recognition for outstanding achievement by both students and teachers. http://soinc.org/parents

Helping your child learn science

A Family Guide for Science

NEBRASKA
DEPARTMENT OF
EDUCATION

Tips and resources to help your child learn science.

Tips for Parents

Make wonder part of everyday life.

Use play, conversation and activities of everyday life to help your child learn skills and ways of thinking needed for science, math and reading. Here are some simple tips:

1. **Focus on your child's interests.** Your child will know more and ask more questions about what he or she loves.

2. **Talk with your child about what you are doing — make it a two-way conversation.** "I'm using this spoon to stir the coca in the hot milk. What else do we stir to mix up?" "I'm going to drag my foot on the right when we go down the toboggan. Which way do you think we will turn? How come?"

   Observe: Ask your child to notice small details. "What shapes do you see in those ice crystals? Are they more alike or different? In what ways?" "Where do you first see the moon in the sky? Is it in the same place every day?"

   Sort: "Which tracks have three toes and which have four?" "Can you sort the adult mittens and hats from the kids?"

   Compare: "Who's got the longer skating stride —Daddy or you?" "How wide is this snowman at the base? Why does it need to be bigger at the bottom than the top?"

   Predict: "How long do you think it will take the icicle to melt?" "If you have more weight on the sled, do you think you'll go faster or slower?"

15 Minute Science Activities

Science starts at home. Parents play a crucial role in determining how much science their children learn. Your enthusiasm and encouragement can spark your child's interest. Children of all ages are curious and love to investigate.

- Why do leaves change color in the fall?
- Why do things fall to the ground?
- How do seeds grow?
- What makes sound and music?
- Where do islands come from?

The earlier we encourage their curiosity, the better.

Together, parents and children can:

- See how long it takes for a dandelion or a rose to burst into full bloom.
- Watch the moon as it appears to change shape over the course of a month and record the changes.
- Watch a kitten grow into a cat.
- Bake a cake.
- Guess why one of your plants is drooping.
- Figure out how the spin cycle on the washing machine gets the water out of the clothes.

Questioning and Listening:

Encourage your children to tell you their ideas and listen to their explanations. By listening to your children, they will gain confidence in their thinking and develop their skills and interest in science.

- At the end of a school day, ask your child, "Did you ask a good question today?"
- Help your children look at things in new ways and encourage them to ask questions without feeling "stupid" when they make mistakes. Have you ever seen it snow sideways? What do you think causes it to move sideways sometimes?"
- Allow your child to choose activities. If a child loves to cook, observe how sugar melts into caramel syrup or vinegar curdles milk.
- Choose activities of interest to your child and listen to learn what those activities are. A sand and rock collection may be a big hit with an 8-year-old daughter but not a big hit with a 6-year-old son. If you don't know whether your daughter would rather collect shells or plant daffodils, ask her. She will learn more and have a better time doing it if the activities match her interests.

Source: U.S. Department of Education Office of Educational Research and Improvement, Helping Your Child Learn Science, edited, summarized.

To learn more about what is expected of a good science student of your child's age, please refer to the Nebraska Science Standards at:
http://www.education.ne.gov/science

For more information please contact the Director of Science Education, James Blake, at james.blake@nebraska.gov or 402-471-4329