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A Publication for Elementary School Parents

Discover science all around us

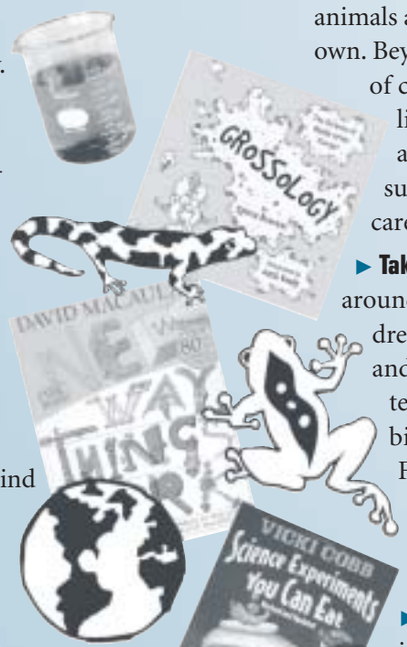
Science teaches children a great deal about their world, their interests and their abilities. In fact, the more opportunities kids have to ask questions, make observations and learn through hands-on experiences—all science skills—the more likely they will excel in other subject areas as well. A solid foundation in science will also give your child an advantage when it comes time to enter the workplace. Economic forecasters predict good jobs will be plentiful for graduates with a solid background in math, science and technology.

Now is the time to encourage your budding scientist!

Science at school tends to be active and "hands-on." It is often taught along with language arts, math and history so that students can see the connections between science and other subjects.

Science can be made all the more meaningful for children when parents routinely encourage scientific discovery beyond the school day. The good news is this is an age when children are naturally curious about their world. It doesn't take much to light the fuse and get your kids excited about science and viewing the world as their laboratory.

Consider making science a family theme this summer when planning activities and projects with your children. Here's a sampling of ideas and activities to get you started and keep the boredom at bay:



- **Tap into natural interest areas.** Do you have a Harry Potter enthusiast? At *www.kidwizard.com* you'll find lots of recipes for potions and slime to make at home, along with explanations about the science behind them. Older children will enjoy reading *The New Way Things Work* by David Macaulay or visiting *www.howstuffworks* on the Web. Pick up a copy of *Sports Science for Young People* by George Barr for your A-Rod in training or *Science Arts: Discovering Science Through Art Experiences* by MaryAnn F. Kohl for your budding Picasso. No matter their interests, there's bound to be a scientific angle on it worth exploring.
- **Make the kitchen your laboratory.** Being able to eat what they experiment with can be a great motivator for children. Even with a "low-tech project like baking bread, children use science skills by reading and following directions, measuring, telling time, predicting, observing and taking outside factors into consideration, like changes in temperature and humidity. Children's books like *Simple Kitchen Experiments* by Muriel Mandell, and *Science Experiments You Can Eat* by Vicki Cobb offer great ideas that combine science and cooking. *The New Kitchen Science: A Guide to Know the Hows and Whys for Fun and Success in the Kitchen* by Howard Hillman will give you the answers to questions like "Why do onions make us cry?" or "Are the green spots in potatoes poisonous?" And if you aren't already fans of the show, tune in as a family to watch *Good Eats* with Alton Brown on the Food Network to learn still more about the science (and humor) of good cooking.
- **Exploit "the gross factor."** If there's one thing parents can be certain of it's this: kids are fascinated by anything gross or disgusting. Dive into the science of all things gross at Web sites like *yucky.kids.discovery.com* or in books like *Grossology* by Sylvia Branzei and *Oh, Yuck!: The Encyclopedia of Everything Nasty* by Joy Masoff.
- **Adopt an unconventional pet.** Children can learn a lot about animals and ecosystems by taking care of critters of their own. Beyond the typical dog and cat, there's a whole host of creatures your child would no doubt love to adopt: lizards, birds, hamsters, snakes, hermit crabs, fish, ant farms and so on. Use your imagination and be sure to do plenty of research together on proper care and feeding.
- **Take time to stop and smell the roses.** Nature is all around us (country, city and suburbs alike) and children can learn so much from being in it. Planting and tending a vegetable garden and maintaining terrariums, bird feeders and butterfly or hummingbird gardens let children observe nature in action. For information on how to create these types of environments with children, link to *www.kidsgardening.com* or *www.realmacaw.com/pages/birdsanc.html.*
- **Brainstorm a fun to-do list for the summer.** Some ideas include nature hikes, kite-flying contests, moonlight walks and visits to museums.
- **Bookmark some top-notch science web sites.** Channel your children's online time in positive directions by introducing them to exceptional web sites that promise plenty of fun. Here are just a few suggestions to get you started:
  - *www.pbskids.org/dragonflytv*
  - *www.scholastic.com/MagicSchoolBus/games/home.htm*
  - *www.planet-science.com/under11s/index.html*
  - *www.girlsgotech.org*

How to get your kids science savvy

You don't have to be an expert to do it

Want to get your kids interested in science? Here are some more ideas from www.parentsoup.com that don't require sophisticated educational training or lots of expensive lessons or equipment:

- ***Talk to your kids and read to them; limit TV, videos and computer games.*** Read to them or give them books about exploration, explorers, discoveries and perseverance in the face of doubt.

Benefits: Develops language skills and interest in reading.

- ***Recycle! Conserve!*** Organize a recycling center at home (paper, cans, bottles, bags). Conserve water and observe restrictions. Educate kids about conserving natural resources, limiting the amount of trash buried in landfills or burned, and disposing of hazardous waste properly. Give old computers and electronics to recycling companies or schools. Participate in local park cleanups.

Benefits: Cultivates conservation, accountability and responsibility.

- ***Plant a garden, even using pots on an apartment balcony.*** Experiment with different soils and watering schedules. Compost vegetable scraps, grass clippings and leaves. Collect acorns and pine cones for art projects. Go to U-pick farms where kids can pick berries, apples, vegetables and pumpkins. Show them how things grow (and where food really comes from).

Benefits: Teaches that science is fun and practical.

- ***Visit the planetarium.*** Use what you learn there to observe the night sky and the constellations. Look for comets (whenever they appear), eclipses and meteor showers, and pay attention to space exploration. Read the newspaper's science page.

Benefits: Cultivates curiosity about the natural world.

- ***Fix or build things around the house.***

Benefits: Teaches measuring, planning, engineering and problem solving.

- ***Play a wide variety of music at home.*** Music has been conclusively shown to enhance mathematical ability, and music lessons have recently been shown to increase IQ by an average of six points. Nature sounds are also available on CD.

Benefits: Sharpens the mind, and also teaches a great outlet for stress release.

- ***Take the vacation of a lifetime*** — go to a national park, where you can run on giant sand dunes, experience total darkness in caves, touch glaciers or see lava flow from a volcano. Nothing beats the grandeur of unspoiled nature.

Benefits: Stimulates the imagination and the senses; encourages physical fitness and inquisitiveness.

DID YOU KNOW?

According to experts in the field, although women make up half of the work force and 30 percent of today's doctors and lawyers, fewer than 10 percent of engineers are women.

PROJECTED GROWTH PERCENTAGE FOR math & science careers OVER THE NEXT 20 YEARS

Biomedical engineers	26.1
Audio and video equipment technicians	26.8
Technical writers	27.1
Environmental engineering technicians	28.4
Computer and information scientists, research	30
Computer support specialists	30.3
Epidemiologists	32.5
Computer and information systems managers	36.1
All other computer specialists	36.5
Network and computer systems administrators	37.4
Environmental engineers	38.2
Computer systems analysts	39.4
Computer software engineers	45.5
Database administrators	44.2
Network systems and data communications analysts	57

South Colonie CENTRAL SCHOOLS
102 Loralee Drive
Albany, New York 12205

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