

Why Lead Science Activities?

Science? That happens in school, right? Actually, opportunities to explore science—meaning discovering how the natural world around you works—can happen anywhere. Building balloon rockets, walking in a park, and baking cookies offer chances to learn science. When kids experience science outside of the classroom, the effect can be positive and long-lasting. Here's why.

Sparks interest and confidence

Outside of the classroom, kids have greater freedom to experiment with materials and test out their ideas without feeling pressure to come up with the “right answer.” Experiences like these can spark children’s interest in science and help build confidence in their abilities to do science. This can lead to positive experiences in science classrooms.

Opens doors

If young people have interest and confidence in science, they are more likely to continue studying it throughout high school. This will keep more doors open to them in the future. Scientists aren’t the only ones who need to know science. Engineers, nurses, lab technicians, mechanics, and many other professionals start their careers by studying science. Learning science also gives kids a chance to develop problem-solving skills they can use, not just in their careers, but also in daily life.

Encourages girls to explore science

Most young girls like science and math just as much as boys do. Yet by eighth grade, girls’ interest drops. Why do girls drift away? They absorb subtle messages that science is not for them. According to the Report of the Congressional Commission on the Advancement of Women and Minorities in Science, Engineering, and Technology Development (2000):

- At home girls receive fewer toys related to math and science than boys do.
- On TV girls rarely see images of female scientists and engineers.
- And girls have few female role models, as women make up only 19% of the science, engineering, and technology workforce.

Out-of-school science experiences can help girls maintain their interest and confidence in math and science, especially during the critical years of fifth through eighth grade. Here are some ways you can help:

- Encourage girls to engage in activities that they may not take on themselves, such as studying insects or taking apart appliances.
- Provide opportunities for girls to use tools, build things, and use computers.
- Ask girls to think of a woman they know who uses science in her job (for example, a doctor, teacher, meteorologist on TV, pharmacist, or engineer).
- Introduce girls to female role models who can share their personal and professional stories.
- Show how science can lead to discoveries that help people.
- If you're starting a science club, encourage girls to sign up.
- If you're leading a coed group, put kids into same-sex groups so girls get just as much time handling materials as boys.
- Invite families to explore science activities together.

Shows that everyone can do science

When you lead science activities with kids, your participation sends an important message: Everyone can do science. You don't need to be a science expert or know all the answers. Just show your own curiosity and willingness to have fun. When leading science activities, think of yourself as a travel guide: It's your job to help kids explore, find out, and wonder. You can use activities, materials, and questions to guide kids as they investigate science concepts.