

AFTERSCHOOL *news*



Integrating Science Across the Curriculum

What do a year-long study of natural disasters, a butterfly garden with art mosaics of the ecosystems in your region, a robotics competition, and a health and nutrition fair have in common? All are great projects to integrate science across the curriculum in afterschool.

Integrating Science Across the Curriculum is one of the promising practices in the science section of the Afterschool Training Toolkit, produced by the National Center for Quality Afterschool. The key goal of Integrating Science Across the Curriculum practice is to reinforce skills in other subject areas by engaging students in science investigations. For example, science projects that include reading build science knowledge while strengthening literacy skills.

Start small. You don't have to create a yearlong activity to show students how math and science, or science and language arts, are related. You can use measurement and counting skills to collect and analyze data, graph and express scientific relationships, or use scientific terms in vocabulary lessons. Over time you can incorporate these smaller lessons into a larger project.

Use day-school teachers as resources. Find out what students are studying and use that focus to create an interdisciplinary activity that incorporates more than one subject and related standards.

Incorporate skills from other disciplines. Pique students' interest in science by designing projects that allow students to use skills from other disciplines. Students may find that their interest in reading, for example, leads them to read more on science topics.

Make it fun. Afterschool offers wonderful opportunities to show students how science can be fun. Build a robot, make a mosaic, or erupt a volcano. All these projects can engage students in a way that might not be possible in day-school.

Integrating science across the curriculum works because students are engaged in their own learning. They use what they already know and construct new understandings. Students are also able to use different strategies, approaches, and learning styles; and they learn in a social context. The learning is not isolated, but rather it is a part of a whole.



The key goal of Integrating Science Across the Curriculum is to reinforce skills in other subject areas by engaging students in science investigations.

The SEDL National Center for Quality Afterschool helps state education agencies and local practitioners develop high-quality programs for academic enrichment as well as youth development activities.

www.sedl.org/afterschool



RECOMMENDED *resource*

THE CONSUMER'S GUIDE TO AFTERSCHOOL SCIENCE RESOURCES

This free resource contains reviews of high-quality, hands-on science content for afterschool programs. It has been updated recently to include reviews of 15 additional curricula, including reviews of materials for afterschool leaders seeking information about offering science activities in their afterschool programs.

www.sedl.org/afterschool/guide/science



Photo by Delaware City Schools Schultz SACC

"The students love activities that are messy. We make Flubber, slime, Alka-Seltzer rockets, and Kool-Aid pickles."

KATHY FRIEND
team leader

Delaware City Schools Schultz SACC (School Age Child Care)

DELAWARE, OHIO

After a full day of school, many students need a break in afterschool. As team leader at Delaware City Schools Schultz SACC, Kathy Friend knows how to give them that break: make afterschool fun. She and her enthusiastic staff have found that with 55 students from kindergarten through fourth grade that fun generally means messy. "The students love activities that are messy," explains Friend. "We make Flubber, slime, Alka-Seltzer rockets, and Kool-Aid pickles."

Science activities can be a way to study a variety of subjects. During a recent project on butterflies, students raised caterpillars, watched them spin their chrysalis, and turn into butterflies. Students reinforced math skills by graphing the stages of the caterpillars as they turned into butterflies. They learned what butterflies eat and how they eat it. Students also did an art project that showed the life cycle of a butterfly, and made butterfly puppets.

The program has several hands-on activities that allow students to explore on their own. One such activity is an "exploration box" that contains items like magnets, geodes, seashells, magnifying glasses, compasses, prisms, kaleidoscopes, or anything else that might capture students' interest. Students can take anything out of the box and use it as long as they return it at the end of the day.

Friend recommends adjusting projects from year to year because sometimes things that work one year will not work the next. "We always need to adjust to the different personalities of the children and staff," she advises.

IN YOUR words

What content areas does your expanded learning program combine with science enrichment? (Select all that apply.)

- Math
- Literacy
- Art
- Technology
- Other

To participate in this survey and view results, submit your vote at www.sedl.org/afterschool/afterwords/survey200905.html.

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TRAINING tip

Safety First

Safety is always a consideration for any science program. Students should have adequate adult supervision—a good rule of thumb is 1 adult for every 5–10 children. Remind students to wash their hands before their fingers end up in their mouths or eyes and to always use eye protection. Have a first-aid kit available and follow program guidelines for emergencies. For more information on safety, look for safety reference books from the National Science Teachers Association.

EVENTS calendar

July 9 Summer Learning Day
www.summerlearning.org/index.php?option=com_content&task=view&id=104&Itemid=426
NATIONWIDE

For more events, visit our calendar at www.sedl.org/afterschool/training/calendar.html.

Newsletter available online at www.sedl.org/afterschool/afterwords