There is a single light of science, and to brighten it anywhere is to brighten it everywhere.

- Isaac Asimov

Inquiry, as it relates to science education should mirror as closely as possible the enterprise of doing research.

- The Exploratorium, 1998

Nothing in life is to be feared. It is only to be understood.

- Marie Curie

Science knows no country, because knowledge belongs to humanity...

- Louis Pasteur

Our Mission

To translate and apply research findings about the science of alcohol use and abuse in a variety of formal and informal educational settings.

NIAAA encourages your feedback and ideas on any of its programs or activities and seeks to hear from those who may be interested in developing a program through a contractual or funding mechanism. Please forward comments and questions to:

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National Institutes of Health
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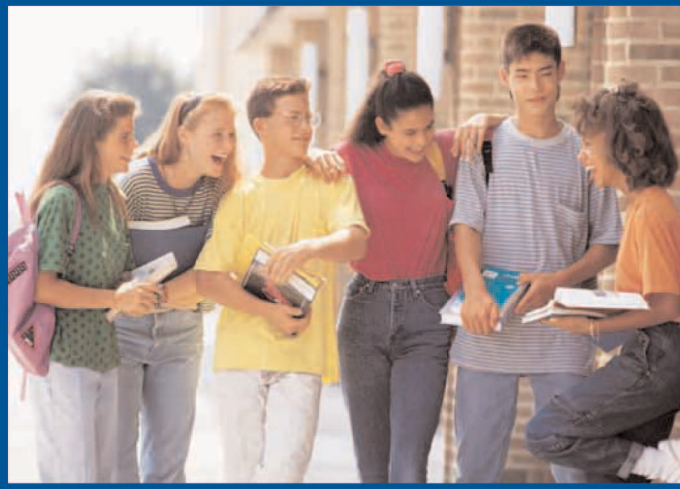
http://www.niaaa.nih.gov/publications/Science/main.htm

Science Education Programs at NIAAA



Translating alcohol-based research into practice, for students, teachers and the general public

National Institute on Alcohol Abuse and Alcoholism
National Institutes of Health

http://www.niaaa.nih.gov/publications/Science/main.htm

Education Goals

The NIAAA Science Education Program goals continue to evolve and currently include the following:

- To enhance education about alcohol for kindergarten through 12th grade;
- To provide instructional resources and in-service learning opportunities to teachers;
- To stimulate the interest of pre-college students in pursuing career opportunities in the biomedical and behavioral sciences, generally, and the alcohol field, specifically;
- To provide teachers with programs that can integrate classroom concepts with engaging, real-life applications;
- To build collaborative partnerships with agencies and organizations that will help the public; and
- To address community problems created by alcohol use.

Grant Funding Opportunities

R-25 Grants: Alcohol Education Project Grants

Provides funding for a broad range of educational approaches, including educational activities directed towards enhancing the knowledge of primary and secondary school educators and students on alcohol-related problems.

http://grants1.nih.gov/grants/guide/pa-files/PAR-04-129.html

Free Curricula for Classroom Use!

Better Safe than Sorry: Preventing a Tragedy

A curriculum module, comprised of three programs (1-5 lessons), on Fetal Alcohol Spectrum Disorders (FASD) for middle school classroom instruction. This program was developed by Dr. Kathy Sulik of the UNC Chapel Hill-Bowles Center for Alcohol Studies, in significant collaboration with several science teachers. Complete curriculum kits and CD-ROM may be available upon request.

Recent Studies

In 2003, 20% of 8th grade students reported that they had had a least one drink in the month before they were surveyed; this number increased to 47% for 12th grade students. (MTF, 2003)

The human brain develops into the early-mid 20's, with exposure of the developing brain to alcohol potentially causing long-lasting intellectual effects and possibly increasing the likelihood of alcoholism.

Animal studies show adolescents as being less sensitive to the sedative effects of alcohol, but more sensitive to alcohol's effects on spatial memory.

The science classroom is an ideal environment to stimulate interest and awareness in research on alcohol and its impact on students' lives. In applying an inquiry-based approach to teaching this subject, through interdisciplinary, flexible means, we hope to help combat the problem of underage drinking.

The kit includes:

- Printed background information for teachers, along with data tables, a parent letter, pre-assessment questions and implementation instructions;
- A CD-ROM with a PowerPoint presentation and video introducing FASD, a step-by-step guide of the brine shrimp activity, and a post-assessment interactive game; and
- Colorful transparencies to provide teachers with additional background information about FAS.
- All printed materials, videos, and PowerPoint/ transparency slides are available for download, viewing and printing at: **http://www.niaaa.nih.gov/publications/Science/curriculum.html**

An optional demonstration (#14-2233) or class-size brine shrimp kit (#14-2235) to engage purposeful hands-on experiments may be ordered (reccomended without ethanol) from the Carolina Biological Supply Company. Go to www.carolina.com.

Understanding Alcohol: Investigations into Biology and Behavior:

Produced by the Biological Sciences Curriculum Study (BSCS) and funded by NIH's Office of Science Education (OSE) and NIAAA; the curriculum consists of six sequential, inquiry-based lessons for integration into a 7th grade middle chool science class. All activities fulfill the requirements of the *5 E's Model* (Engage, Explore, Explain, Elaborate, and Evaluate) and meet National Science Education Standards' (NSES) Content and Performance Standards. The curriculum includes:

- Content on absorption and transport of alcohol in the body, as well as its biological and behavioral effects;
- Personal and societal consequences of alcohol abuse and alcoholism; and
- Comparison lab activities using manipulatives, intoxicated vs. sober mouse and drunk-driving simulations, followed by a capstone lesson where students use knowledge gained to explore a public policy question.

To place orders, download and print complete lessons, and view corresponding videos and graphical components, go to:

http://science.education.nih.gov/customers.nsf/MSAlcohol?OpenForm

Future Programs

- Integrate the *Better Safe than Sorry* curriculum module into the multidisciplinary academic environment for middle school and possibly even high school.
- Conduct teacher focus groups, workshops and seminars on our curricular programs at professional science education and general education conferences in the US and abroad.
- Coordination of outreach programs with universities, non-profit agencies and other organizations around the country.
- Develop partnerships with technological, educational and pharmaceutical organizations to increase availabilty of resources and programs to underserved communities.
- Implementation of teacher training institutes that meet NSES standards.
- Evaluation of NIAAA's curriculum modules and integrated lessons.