

EDUCATION

Science Olympiad Hydro Competition

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Spring is science season. Signs of springtime in the Southwest include a bounty of local, state, and national science competitions for grades K-12. These events range from traditional science fairs to highly focused engineering and robotic competitions, and sophisticated “envirothons” that challenge students (and their teachers) to creatively employ the scientific method to solve old and new science quandaries.

The Science Olympiad is one of the largest and most dynamic of the science competitions. The supporting organization was founded in 1983 with the goals of improving the quality of science education, increasing student interest in science, and providing recognition for outstanding achievement by students and teachers through classroom activities, research, training workshops, and a series of tournament-style academic competitions for individual and team events which

students prepare for during the school year. The competitions are balanced among the science disciplines of biology, earth science, chemistry, physics, and computers and technology; more than two million students, coaches, teachers, parents, and experts will participate in the tournaments this year. Winners of the state competitions will advance to the 2006 National Science Olympiad Tournament hosted by Indiana University, Bloomington, in late May.

In the Southwest, Arizona, New Mexico, Nevada, Southern California, and Utah offer events for sixth to ninth graders, including two hydrology competitions, Awesome Aquifers and Water Quality. With regional and state finals occurring this spring, the competitors have been busy with their volunteer coaches building groundwater models, hydrometers, and salinometers, and studying macroinvertebrates in

preparation for the regional tournaments. The teams get hands-on, experience-based problem-solving opportunities in hydrologic concepts during the

competition and the coaches and judges help cultivate an atmosphere of collaboration, inquisitiveness, and creativity.

The Awesome Aquifers competition requires middle school students to exhibit an understanding of groundwater in the hydrologic cycle and the physical makeup of an aquifer, and to demonstrate changes to the groundwater system.



Photo: Jim Washburne

Competitors build an aquifer in Arizona's 2006 Science Olympiad.

The Water Quality event encourages a strong understanding of the ecology and chemistry that contributes to water quality, and involves building homemade hydrometers to test water quality. Students are also judged on written tests covering their knowledge of groundwater and water quality basics and vocabulary, their ability to apply what they've learned, and their ability to use scientific references within the 50-minute tournament timeframe.

Volunteer coaches for the water events and judges with expertise in hydrology are needed every year in every region of the Southwest. If you are interested in contributing your time and energy to these events, visit the National Science Olympiad Site at www.soinc.org, or the Science Olympiad websites for your region.

Arizona - Selina Johnson, University of Arizona: www.soinc.org/states/arizona.htm or Agripina Paluch: www.gc.maricopa.edu/biology/so/

Nevada - Richard Vineyard, Nevada Dept. of Education, rvineyard@doe.nv.gov

New Mexico - Tony Ortiz, NM Institute of Mining and Technology: infohost.nmt.edu/~science/olympiad/

Southern California - Ed Rodevich, Orange County Office of Education and Sharon Writer, Cal State University: scienceolympiad.ocde.us/olympiad/

Utah - Sharon Ohlhorst, Weber State University: departments.weber.edu/sciencecenter/ScienceOlympiad/Olympiadpage.htm



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