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## **ORAU to Develop Environmental Science Package for High School Students**

Oak Ridge Associated Universities (ORAU), Oak Ridge, Tennessee, will develop and test a package of environmental measuring devices that high school students will build themselves from basic electronic components and then use to monitor air, water, noise and radiation pollution levels in their home communities.

The pilot program of environmental experiments, to be carried out nationally in selected high schools during the next year, is designed to increase student awareness of the complexity of environmental problems and to stimulate interest in their solution through first-hand experience in environmental monitoring and measurement.

Under a National Science Foundation grant of \$17,000, ORAU will develop and distribute a multiple-instrument kit, which consists of a basic read-out meter that accommodates four different probes—to measure water conductivity, air particulate content, noise level and radiation. Electronic instrumentation will be supplemented in the package of experiments by low-cost chemical indicators and simple sample-collection devices.

The aim of the program is to provide educators with tested materials for use in upgrading environmental education at the secondary school level and, in turn, to encourage young people to consider careers in environmental research and related technologies.

Results will be reviewed by curriculum developers and laboratory-equipment manufacturers and published, together with complete plans, blueprints and laboratory guides for the experimental equipment, in science education journals; this will provide for wider dissemination of this information among secondary teachers.

Under the pilot program, ORAU will distribute 25 sets of the environmental experiments package to high schools through the "This Atomic World" lecture-demonstration program it operates nationwide for the U.S. Atomic Energy Commission. Schools participating in the initial tests of the environmental experiments will be chosen from the more than 3,000 visited by the program during the next school year.

The ORAU science teacher-demonstrators presenting "This Atomic World" will brief teachers and their classes on the use of the experimental materials; they will provide instructions on assembly of the measurement devices from kits and conducting a dry run of selected experiments to be carried out by the students.

Four one-week workshop sessions are planned this summer in Oak Ridge, at which students from area high schools will participate in final testing of prototypes of the experimental packages.

ORAU is a nonprofit educational and research corporation sponsored by 41 colleges and universities in the Southeast. The environmental experiments program was developed by the Association's Information and Exhibits Division under Courtland S. Randall, division chairman.