Earth and Space Sciences Should be Taught in K-12 Education

The global economy increasingly requires an understanding of Earth and Space Sciences. Therefore, it is important to have a public that is able to make informed choices on issues related to Earth and Space Sciences. AGU encourages school districts to incorporate the AAAS Benchmarks and NRC Standards in developing teaching strategies.

Citizens require a solid understanding of the Earth and space sciences to address responsibly many of the issues confronting society, such as climate change, natural hazards, and resource availability. In the U.S., the only opportunity for most people to learn science in a formal setting occurs in grades K-12 (kindergarten through high school). In addition, a positive K-12 science experience may inspire young people to pursue the further study of science. As a community dedicated to advancing the understanding of Earth and space, the American Geophysical Union (AGU) is committed to effective science education in the primary and secondary grades.

The National Research Council (NRC) and the American Association for the Advancement of Science (AAAS) have independently addressed ways to improve the quality of K-12 science education. Their recommendations are published in National Science Education Standards (NRC, 1995) and Benchmarks for Science Literacy (AAAS, 1994). These documents outline specific concepts that students should know, understand, and be able to apply in order to be scientifically literate. They also suggest effective methods for teaching science. Both documents include the Earth and space sciences, along with the physical and life sciences, as essential elements in education at all grade levels.

The American Geophysical Union endorses the recommendations for teaching Earth and space sciences contained in Benchmarks for Science Literacy and National Science Education Standards. AGU urges local and state education agencies to implement these recommendations in the primary and secondary grades.

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