The Earth Trek Program: Earth Balloon

The Earth Trek Program is a unique interactive learning experience for elementary, middle school, or even high school age youth. Using science and social studies themes, the program topics integrate all core subjects into a rich variety of experiences all tied to Ohio Content Standards. Its mission is to raise awareness of critical issues facing our planet that will affect each student in his or her lifetime. The program's showcase is the “Earth Balloon" a 22 foot inflatable model of the earth. This portable classroom is used as a teaching platform to facilitate a field trip experience for students in the school gymnasium or on the Center's site at the Eastern Campus of Cuyahoga Community College.

An Overview of the Earth Trek Program Lesson Plans
Each topic includes three components:

- A set of classroom pre-activities with detailed lesson plans to allow the classroom teacher to prepare the students for their upcoming visit to the "Earth Balloon." 40-80 minutes
- An "Earth Balloon" experience guided by a professional presenter. Each presentation focuses on the chosen topic's 'essential question' in a 20 minute interactive overview outside of the Earth followed by a 20 minute program continuation inside the Earth Balloon. 40-50 minutes
- A set of classroom post-activities with detailed lesson plans to allow the classroom teacher to extend and integrate the Balloon experience into core curriculum areas. 40-80 minutes/subject

While this is a sampling of lessons we currently have, we have customized some of these for particular schools and grade levels and are happy to consider customizing and/or developing new lessons based on school/teacher needs and wants.

Each teacher participating in the Earth Trek Program will receive a binder with program descriptions, complete lesson plans keyed to Ohio Content Standards and masters for classroom handouts.

If you would like more information regarding the Earth Trek Program or to schedule it at your school, please call The Global Issues Resource Center at (216) 987-2224.

Specific Earth Trek Program Topics:

Water, Water Everywhere, But...
This topic answers the essential question "Why is water so important to life on Earth?" The pre-activity is a Great Lakes Scavenger Hunt that utilizes traditional and internet research methods. The "Earth Balloon" visit is an interactive session that addresses the availability, use and distribution of water on the planet. The five post-activities are in the content areas of science, social studies, language arts, math, art and music. The content of the activities ranges from the use of water in the human body to creating Haiku poems inspired by water.
**Popping Population**

This topic answers the essential question "How many people can the earth really support?"

The two pre-activities include a video and discussion on population growth, aligning events of historical significance with population increases and projecting population growth in the future; and students doing preliminary research on specific countries. The "Earth Balloon" visit is an interactive look at population centers in relationship to available basic resources. The four post-activities are in the content areas of science, social studies, language arts, and math. The content of the activities ranges from the impact of human population on the Earth to the issue of "needs" versus "wants" in regard to daily living.

**Biosphere – Survival on Planet Earth**

This topic answers the essential question "Why is diversity so important to life on earth?"

The pre-activity has students researching various organisms to discover their needs for survival on Earth. The "Earth Balloon" visit is an exploration of what humans need to survive on Earth and the variables that impact those needs. The three post-activities are in the content areas of math/science, language arts/social studies, and science. The content of the activities range from measuring the diversity in a lawn to writing a letter about life in the future depending on world issues.

**Exploration: Please Help Me, I'm Shrinking!**

This topic answers the essential question "How does the earth appear to be getting smaller?"

The pre-activity has students research changes in modes of transportation and distances from home to school, and distances traveled in a lifetime over the past 50 years. The "Earth Balloon" visit traces the travel routes of the explorers of the last 500 years and how transportation advancements influenced exploration. The four post-activities are in the content areas of science, social studies, language arts and math. The content of the activities ranges from writing persuasive essays to designing a space vehicle to take people to explore Mars.

**Sun, Moon and Stars**

This topic helps connect planet Earth to the solar system. Pre-activities include resources on planets and the solar system, Pangaea and the different continents. The lesson provides an overview of the planets, their order and make-up, and students have the opportunity to dress up as Greek gods and goddesses from whom the planets received their names. Students then review rotation and revolution. Then, students focus on the Earth Balloon and review different land forms, continents and oceans and what the planet is made of. Once inside the balloon, students review where important sites are located and then explore issues of climate change and how it is affecting the planet. Post activities include science experiments, review of “what you can do to keep the planet healthy”, and planet reviews.