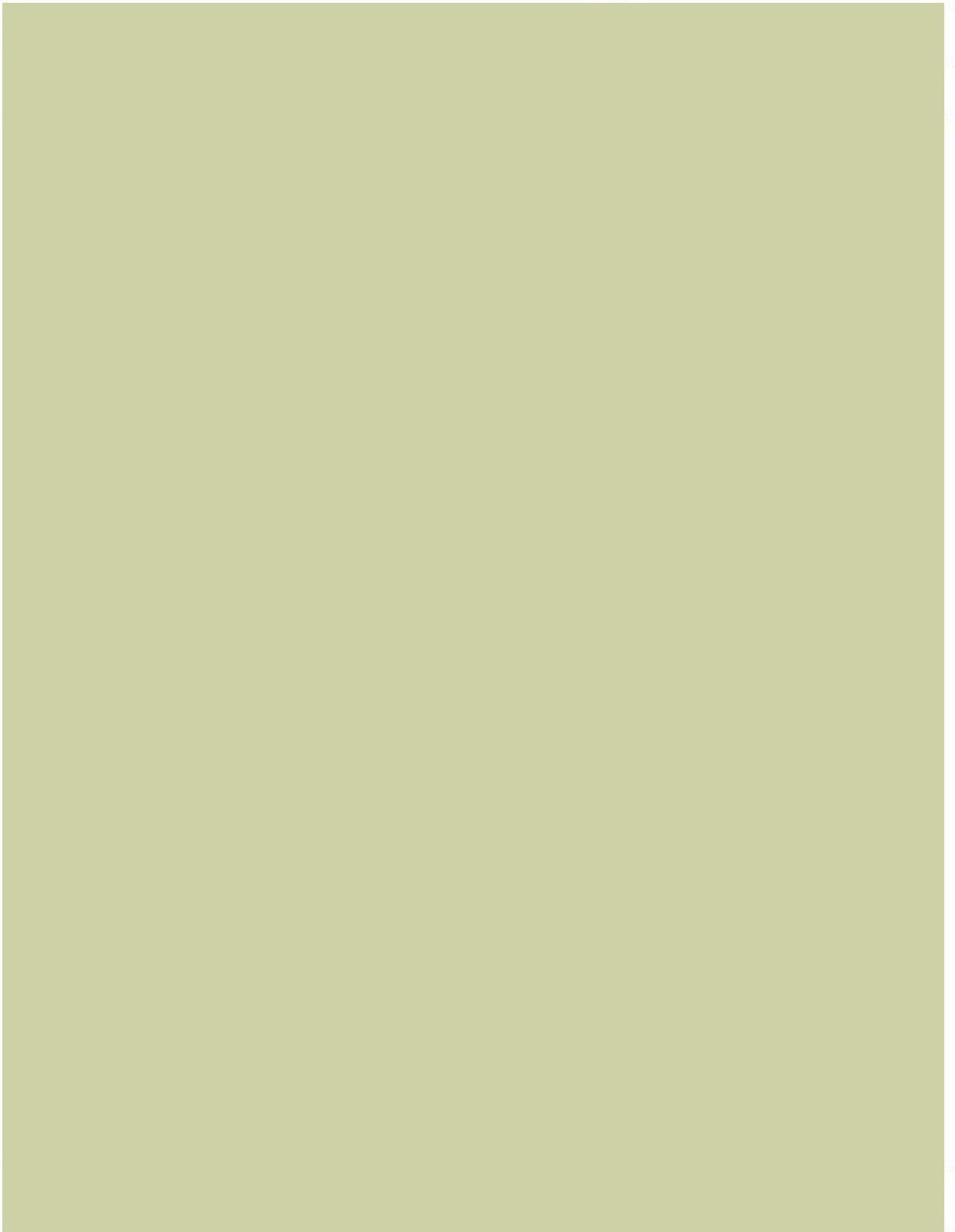




The GLOBE Program in the Near East

An international hands-on, school-based education and environmental science program uniting students, teachers, and scientists in study and research about the dynamics of Earth's environment. Over 31,000 teachers in more than 17,000 schools in over 100 countries have been trained to implement GLOBE.







GLOBE Program Summary

The GLOBE Program brings together students, teachers and scientists to:

- Increase scientific understanding of the Earth;
- Support improved student achievement in science and math; and
- Enhance environmental awareness of individuals worldwide.

GLOBE supports education by providing hands-on experience in authentic science. GLOBE students are doing science, not just learning about the work of others. Students begin with measurements of individual environmental parameters and build toward an understanding of how the Earth functions as a system.

GLOBE students measure and report physical, chemical and biological properties of Atmosphere and Climate, Hydrology, Soil, Land Cover/Biology and Phenology. The resulting global data sets are made freely available via the Internet at www.globe.gov to users including the worldwide environmental science community. GLOBE students also access these data for classroom studies, research, student-scientist partnerships, and worldwide school-to-school collaborations. GLOBE students have collected and entered more than 14 million data for their use as well as by scientists studying the Earth system.

The next step in the evolution of the GLOBE Program is called the “Next Generation GLOBE (NGG).” The features of NGG are based on an intensive self-study of the past 10 years of GLOBE conducted by GLOBE Program Office staff, with extensive input and recommendations from the worldwide community of GLOBE participants, and guidance from GLOBE’s U.S. Government funding agencies.

The vision of NGG is of a Program supporting students, teachers, and scientists to collaborate on inquiry-based investigations of the environment and the Earth system, working in close partnership with two U.S. agencies, the National Aeronautic and Space Administration (NASA) and the National Science Foundation (NSF), and their Integrated Earth System Science Programs (IESSPs) to give the entire GLOBE community access to top scientists around the world and expose students to programs that are on the cutting edge of Earth system science research. To achieve this vision, GLOBE will promote focused activities around the NSF IESSPs, develop GLOBE Project School Networks (PSNs) and strengthen GLOBE Learning Communities through the development of Regional Consortia of GLOBE countries around the world.

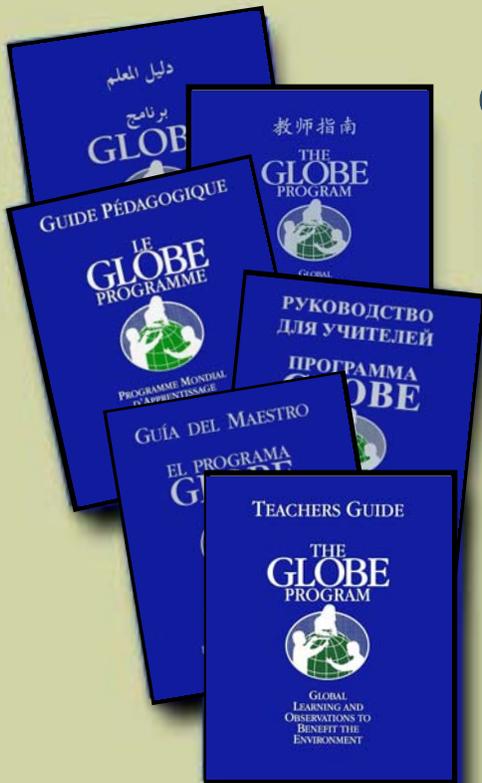
This transformation will be accomplished while retaining the Program’s essential elements of being both education and Earth system science, a bridge between these two international communities, a worldwide collaborative community of practice, and a program that employs inquiry-based educational activities that involve students in “authentic” hands-on science, the analysis of data and the use of scientifically-tested protocols.





Educational Materials

GLOBE provides a variety of K-12 educational materials, from hands-on inquiry activities for classroom use to online interactive learning experiences and investigations using student-collected data.



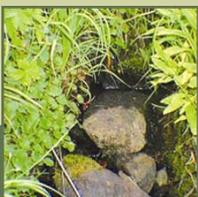
GLOBE Teacher's Guide

The GLOBE Teacher's Guide provides the scientific and educational foundation for the first generation of GLOBE investigations: Atmosphere, Hydrology, Land Cover, Phenology, and Soil. It includes information necessary for accurate data collection such as measurement procedures, student lab and field guides, instrument specifications, and scientific background information. The Teacher's Guide also includes a variety of Learning Activities that complement data collection and extend student understanding of the Earth as a system through a hands-on and inquiry-based approach.



Elementary GLOBE

GLOBE has developed a suite of storybooks and learning activities specifically designed for grades K-2 that form the Elementary GLOBE Unit. This unit engages the youngest GLOBE students in an age-appropriate fashion. These standards-based and classroom-tested resources include five modules that each address parts of the Earth system while also building literacy skills.





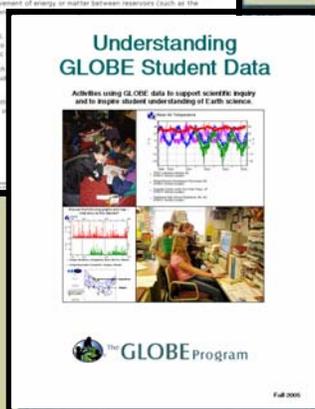
Online Teaching Modules

The GLOBE Program has developed Interactive online resources to promote understanding of GLOBE Program content and scientific protocols. Resources combine graphics and interactivity to promote understanding through a hands-on approach that has been established as a successful model for online learning. The Cloud Protocols module (shown here) promotes scientific understanding of cloud formation, content on identification of cloud types, and interactive features to help online learners to accurately collect data related to the GLOBE Cloud protocols.



Data Use Activities

Educational materials have been designed to encourage student analysis and interpretation of data. The data use activities foster student investigation of environmental data using the GLOBE Web site and its online graphing tools. GLOBE educational technologists are exploring additional learning models to encourage student interpretation of data in an online and inquiry-based format.





GLOBE Learning Expeditions

GLOBE Learning Expeditions (GLEs) are organized every 2 to 3 years in order to provide students from around the world the opportunity to meet one another, establish friendships and develop collaborative partnerships that will enhance their future GLOBE experience. These conferences also provide teachers an opportunity to share ideas and challenges from their GLOBE experiences, to attend protocol and activity enrichment sessions, and to build connections for research efforts between schools. GLEs have occurred in 1998 (Helsinki, Finland), 2000 (Arkansas, U.S.A.), and Šibenik, Croatia (2003). The next GLE is tentatively scheduled for 2008 in a location still yet to be determined.

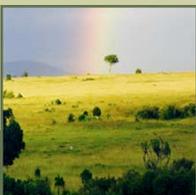


GLOBE Annual Conference

The 9th Annual GLOBE Conference, "GLOBE 2005: Global - Regional - Local," was held on 31 - July - 5 August, 2005, in Prague, Czech Republic. The Annual Conference brought together GLOBE Country Coordinators and U.S. Partnership Coordinators, Education and Science Principal Investigators, GLOBE Program Staff, and others to address key education and science elements of GLOBE. This event was the first GLOBE Annual Conference to be held outside of the U.S. The meeting was organized by GLOBE Europe, in collaboration with the GLOBE Program Office, and was graciously hosted by Tereza Association, the organization responsible for GLOBE in the Czech Republic. More than 150 individuals from 34 countries participated actively in presentation, discussions, workshops and social events.



The 10th Annual GLOBE Conference, "The New Decade for Global Sustainable Development", will be hosted by GLOBE Thailand in 2006. Look for updates on the GLOBE Web site about this event!





GLOBE Country Coordinators in the Near East (12 Countries)



Bahrain
21 Schools

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Ministry of Education
P.O.Box 986 – Manama
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Mauritania
0 Schools

Mr. Mohamed El Hafez Ould Tolba
Directeur General de l'Enseignement
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Nouakchott
MAURITANIA
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Egypt
13 Schools

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Morocco
2 Schools

Ms. Naima Oumoussa
Ministry of Environment
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103 Schools

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Haminhal Lehinuh Hityashvuti
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Yad -Eliyahu
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ISRAEL
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Email: yusra@zahav.net.il



Qatar
26 Schools

Dr. Nawal Abdullah Al-Shaikh
Ministry of Education
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Jordan
23 Schools

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Saudi Arabia
19 Schools

Prof. Abdullah M. Al-Falih
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Kuwait
5 Schools

Currently no Country Coordinator identified for GLOBE Kuwait; contact the GLOBE Program Office by phone at 1-800-858-9947 or by email at Africa-MiddleEast@globe.gov



Tunisia
21 Schools

Mr. Mahmoud Ouanes
Ministry of Environment
Centre Urbain Nord
1004 El Menzah, Tunis
TUNISIA



Lebanon
15 Schools

Ms. Sawsan Abu Fakhreddine
Association for Forest Development
and Conservation (AFDC)
Ramlieh-Aley-Lebanon
LEBANON
Telephone: (961) 3 695229
Email: sawsan@afdc.org.lb

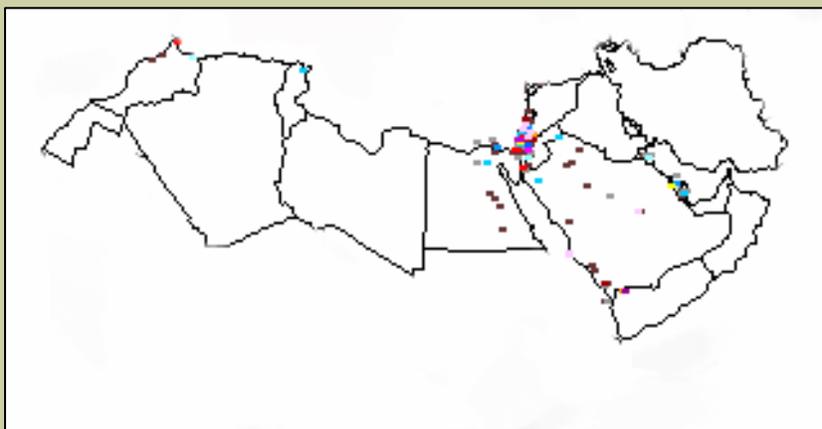


United Arab Emirates
0 Schools

Dr. Aljouharah Saleh A. Almairan
U.A.E. Ministry of Education & Youth
Office of the Minister
P.O. Box 20107
Dubai
UNITED ARAB EMIRATES
Telephone: (9714) 6069416



Countries in Negotiation: Oman and Algeria



The Near East

Teachers: 357 Schools: 263
Data Reported: 225,104

The screenshot shows the GLOBE Program website for the Near East region. On the left is a navigation menu with categories like 'HOME', 'EDUCATION & SCIENCE', 'GLOBE DATA', 'GLOBE PARTNERS', 'LIBRARY', and 'INFO & HELP'. The main content area features a banner for 'Newsletters & Special Reports' with an owl logo. Below this, it lists two newsletters: 'Near East Newsletter (30 Sep 2005)' and 'Near East Regional Spring Newsletter (31 Mar 2005)'. There are also links for language selection, menu options, and server locations. At the bottom, there is a 'Questions/Comments regarding the GLOBE Program' section and a 'GLOBE is managed by UCAR/CSU...' statement.

GLOBE Online Newsletters





Highlights of GLOBE Activities in the Near East

Regional Events/Collaboration:

- 4 regional student conferences (2 in Bahrain, Qatar, Lebanon);
- Collaborative student research projects involving students from Bahrain, Egypt, Lebanon and Jordan;
- GLOBE Games in Lebanon
- Web chats involving students from numerous countries and video conference between GLOBE Chief Scientist and GLOBE schools in Egypt
- Bahrain, Egypt, Lebanon and Qatar participated in the 2003 GLE
- Student exchanges between Czech Republic, Bahrain and Lebanon

Training Workshops of Regional Significance:

- Train-the-Trainer in Bahrain, December 2004
- Regional Teacher Trainings: Teacher trainings have occurred at the 4 regional conferences. Jordan has worked with schools in the West Bank and Iraq using GLOBE materials. Bahrain and Lebanon are creating a MOU concerning environmental education activities that includes GLOBE - teacher training will be a component.

GLOBE Arabia Regional Consortium:

Discussions of regionalization were held at the GLOBE Annual Conferences in 2004 and 2005; regional meetings occurred in association with the International Training Workshop in Bahrain, December 2004 and the Regional Student Conference in Qatar, March 2005. GLOBE Arabia is currently in the process of creating a regional consortium. The key objectives of the draft constitution are:

1. To strengthen regional functions and strengthen the relations between students in the Near East and United States, and other participating countries.
2. To create an active framework that is easy to join and applicable for all members.
3. To increase the number of participating teachers and students
4. To develop and implement regular regional activities.
5. To develop joint projects and collaborations among schools and countries.
6. To encourage the scientific communities in the Near East to participate in GLOBE activities.

Countries included in the GLOBE Arabia Consortium currently are: Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Qatar, Saudi Arabia, Tunisia, and United Arab Emirates.





Highlights of GLOBE Stars and News and Events in the Near East

HOME
2005 December 02 23:25 UT
How To Join GLOBE

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School Collaboration
Scientists' Corner
Educators' Corner

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Maps and Graphs
Data Access

GLOBE PARTNERS
Partner's Corner
Countries



Jordanian Student creates Email Data Entry Generator!

September 08, 2005

Have you ever entered your GLOBE data via E-mail? It's a fantastic method of sending large amounts of data to the GLOBE database. However, it can be a bit overwhelming and difficult to understand the codes necessary to enter data. A former Jordanian GLOBE student has developed a program to help overcome these problems.

Mohammad Abu Musa began working with the GLOBE Program in 1999 while a student at the



Scientists' Corner

Chief Scientist Message, Peggy LeMone

July 12, 2004

Today was a first for me and I think for GLOBE -- several of us in the U.S. (Jack Fishman, the GLOBE Surface Ozone PI from NASA Langley, Eron Brennan, Supervisor, Multimedia Services at the National Center for Atmospheric Research, and I) were able to attend -- remotely -- the opening ceremonies of a GLOBE gathering in Cairo, Egypt via video conference. The students from schools made presentations on their research topics, sang songs, and performed plays --

HOME
2006 March 06 21:53 UT
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The 4th GLOBE Program Regional Conference in the Middle East

Over 100 students, teachers, and Country Coordinators from Bahrain, Lebanon and Qatar met in Doha, Qatar between March 6 and 10 for the 4th GLOBE Program Regional Conference in the Middle East. The conference was sponsored by the Qatar Ministry of Education with support from the Supreme Council for the Environment & Natural Reserves, the United States Embassy in Qatar, and RasGas, a major producer of liquefied natural gas and related products in Qatar. Dr. Nawal Abdullah Al-Shaikh,



Middle East Hydrology Project Yields Waves of Data and Big Plans

September 20, 2002

More is known and more is being learned about the waters of Bahrain, Jordan and Lebanon, thanks to the efforts of GLOBE students who are conducting the Middle East Hydrology Project. Through the project, developed by the participating countries, secondary school students are using GLOBE hydrology protocols to compare seawater quality in waters of the Arabian Gulf, the Red Sea and the Mediterranean Sea, and to determine the effects of pollutants such as sewage and industrial on sea water. The students are taking measurements following the GLOBE temperature,

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2005 09 22 04:55 UT
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طلاب جنوب في المملكة العربية السعودية يرصدون عبور كوكب الزهرة أمام الشمس

September 22, 2004

إن جمع الملاحظات العلمية عن كوكبنا الأرض إنما هو جزء مما يعرّفه الأستاد/ة رأيت حمدي مع طلابه في مدرسة حمدة بن عبدالملك الثانوية بحدّة ، المملكة العربية السعودية. في الثامن من شهر يونيو/حزيران 2004 مصادفةً رصد الطلاب طاهرة عبور كوكب الزهرة أمام الشمس، حدث بعد الظهر في الساعة 5:22 بالتوقيت المحلي (8:22 صباحاً بالتوقيت الصيفي) بعزل الأستاد رأيت حمدي ، باستخدام النظارة الشمسية الخاصة برصد كسوف الشمس والنظارات الشمسية الخاصة ، التي رتبناها بهيئة البنك عبدالرحمن السوي والحدّة وعلينا علم الهيئة الشمسية المتكبرة [http://www.the-sun.org/sun/sun-arabic/kasat.htm] كان من السهل علينا رؤية كوكب الزهرة كمنطقة سوداء تدور قرب الشمس "عقل خالك بن ولة العربي أحد طلاب البرنامج " لقد أسهمت عبر المشاهدة الكثير كوكب الزهرة إنه في وسط الشمس إنما تشده الجذب، الشمس كبيرة نضياء وكوكب الزهرة نقطة سوداء بها "

و قد زار بعض أسماء برنامج جلوب كعبة الطير الفلكية خاصة عبدالرحمن السوي حيث قال الأستاذ رأيت حمدي " لقد تعلمنا بأن أول من رسم طاهرة عبور كوكب الزهرة أمام الشمس كان العالم المسلم (الفارسي) التركياني الأستاد السعدي المشأ في عام 910م/بيلادية. و عقل أستاذ " لقد تعلمت من طلابي بأخذ قراءات درجة الحرارة كل ساعة من ساعات المجرى حتى انتهاء البحث في الساعة 11:22 بالتوقيت المحلي أي الساعة (2:22) لظهر بالتوقيت المحلي) لقد لاحظت التغيرات انخفاض درجة الحرارة نقطة واحدة بين الساعة 8:00 - 10:00 صباحاً بالتوقيت المحلي. أي (11:00 صباحاً - 1:00 ظهرًا بالتوقيت المحلي) فكانت درجة الحرارة الحالية في الساعة الثانية بالتوقيت المحلي 38.1 ° وفي الساعة الثانية بالتوقيت المحلي كانت درجة الحرارة 38.2 مئوية " و قد خلق الطلاب سبعة من عبور نقرته " أخصر بالمساعدة عندما أكون غصواً نفساً و هماًلاً في شخصي، إنني أخصر وينتهي وأبصر الظواهر الفارقة "

HOME
2006 01 25 04:55 UT
How To Join GLOBE

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Bahrain Students Walk for Environmental Awareness

February 22, 2006

The Bahrain GLOBE Green Walk Event took place on January 25, 2006. Thirteen groups of up to ten members spent an entire day at AL-Areen Wildlife Reserve Park for a day of fun environmental education. The 140 students and teachers participating in this event explored the natural beauty of their park, deepened their awareness about the environment, while demonstrating good environmental practice and behavior. The aim was to provide an interesting range of events for students, as well as attracting environmentally aware students to the area.

The Green Walk consisted of thirteen stations, six of which employed GLOBE Protocols: Atmosphere, GPS, Hydrology, Land Cover, Phenology and Soil. The other seven stations were designed to raise the student's awareness about particular issues relating to Bahrain's environment: Wildlife, Trash Modeling, Green Walk, IQ, GLOBE Island, Eco-Games and Fun Games. The students enjoyed a closing ceremony by Her Highness Shaikha Hessa Bint Khalifa Al-Khalifa, the wife of H.H. Shaikh Abdulla Bin Hamad Al-Khalifa, and Mr. Hornbeckle, the cultural Attaché at the American Embassy in the Kingdom of Bahrain distributed certificates of participation and gifts to the winning group. The U.S. embassy was kind enough to distribute backpacks to all participants.

Highlight your special GLOBE events as well as any GLOBE activities that your teachers and students would like to share with others. These stories often provide ideas and inspiration to other schools, teachers and Country Coordinators. Acknowledge these events by creating a draft article and submitting it with a few photographs. Please remember that all pictures must have a completed release form in order to be posted on the GLOBE Web site.





The GLOBE Program
www.globe.gov

For more information contact:

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Email: tkennedy@globe.gov



Winner of the 2004 Media and Technology Category

“The awardees reflect new ways of teaching world languages and focus on the international dimension of every major subject, including math, science, language arts, history, geography and economics. They also feature creative and innovative uses of technology.”



Featured in the Phi Delta Kappan International Studies Resource Guide – November
2004 • Volume 86 • Number 3 www.pdkintl.org/kappan/k_v86/k0411ka3.htm

GLOBE is an interagency program funded by the U.S. National Aeronautics and Space Administration (NASA) and the U.S. National Science Foundation (NSF), supported by the U.S. Department of State, and implemented through a cooperative agreement between NASA, the University Corporation for Atmospheric Research (UCAR) in Boulder, Colorado, and Colorado State University in Fort Collins, Colorado.

