**Geosciences Information For Teachers (GIFT)**

GIFT is an activity of the Committee on Education of the European Geoscience Union (EGU) open to primary and secondary science school teachers worldwide. Although this information is meant for French teacher it is written in English, because this is the official language of the GIFT workshops.

**BACKGROUND INFORMATION**

The [European Geosciences Union](http://www.egu.eu) (EGU) was founded in 2002 as a merger of the European Geophysical Society (EGS) and the European Union of Geosciences (EUG). EGU is a dynamic, innovative, and interdisciplinary learned association devoted to the promotion of the sciences of the Earth and its environment and of planetary and space sciences and cooperation between scientists.

The EGU’s [Forum on Education, Outreach, News & Sponsorship](http://www.egu.eu) is formed by 5 committees, among which the 'Committee on Education’ which organizes Geosciences Information for Teachers (GIFT) Workshops since 2003.

**WHAT IS THE GIFT WORKSHOP**

The [http://gift.egu.eu/GIFT Workshop](http://gift.egu.eu/GIFT Workshop) is two-and-a-half-day teacher enhancement workshops held in conjunction with EGU’s annual General Assembly, generally in Vienna (Austria) in the month of April. Top-level scientists working in the field of Earth Science and attending the General Assembly will offer the participating teachers talks centered on a different theme every year. Program, and presentations offered for each GIFT workshop are available in the EGU web page ([see past GIFT themes](http://gift.egu.eu/GIFT Workshop)). Beginning in 2009 selected conferences are available for [Web streaming](http://gift.egu.eu/GIFT Workshop).

The main objective of the GIFT workshops is to spread first-hand scientific information to science teachers of primary and secondary schools, significantly shortening the time between discovery and textbook, and to provide the teachers with material that can be directly transported to the classroom. In addition, the full immersion of science teachers in a truly scientific context (EGU General Assemblies) and the direct contact with world leader geoscientists are expected to stimulate curiosity towards scientific research that the teachers will transmit to their pupils.

**EXPENSES**

The EGU Committee on Education will cover the costs of travel to Vienna and Hotel rooms for participating European teachers.
WHO CAN APPLY

All primary and secondary school science teachers worldwide. Teachers needs to fill out the application form to participate in the workshop, must include a letter of authorization from the school director and provide a signed statement that they understand the English language.

HOW TO APPLY FOR FRENCH TEACHERS:

Download the file Application to participate in the GIFT 2012 workshop..doc downloadable at the end of this document, and return it via e-mail to Carlo Laj (Carlo.Laj@lsce.ipsl.fr) or Jean-Luc Berenguer (jean-luc.berenguer@ac-nice.fr) The deadline to apply to the GIFT 2011 Workshop is November 30th 2011.

GIFT WORKSHOP 2012

Preliminary program and application form

Water!

The 2012-GIFT (Geosciences Information for Teachers) workshop will take place on April 23-25, 2012 during the General Assembly of EGU in Vienna Austria. The general theme of the workshop is « Water! » and will be dedicated to the study of the hydrological problems of our planet.

The water cycle, also known as the hydrological cycle, describes the continuous movement of water on, above and below the surface of the Earth. It also involves the exchange of heat energy, which leads to temperature changes. The water cycle figures significantly in the maintenance of life, society and ecosystems on Earth. However, several problems threaten water resources today, which are related to the unsustainable use of water and the lack of adequate supply of water in many parts of the world. Such problems are caused by an ever increasing population, consumerism, urbanization and changes in agricultural practice.

In addition, as the water cycle involves heat exchange, it has a two-way feedback with our climate as well. In particular, the effects of atmospheric global warming on the water cycle are significant. Observed warming over several decades has been linked to changes in the large-scale hydrological cycle such as:

- increasing atmospheric water vapor content;
- changing precipitation patterns, intensity and extremes;
- reduced snow cover and widespread melting of ice;
- and changes in soil moisture and runoff.
As a consequence, water resources have already been deeply affected by global warming: sea levels have risen, glaciers have retreated. The hydrological cycle is heavily affected by land use change which in turn affects groundwater recharge. The above problems cause concerns in almost every sector of everyday life, and geo-engineers are seeking ways of mitigation. All water bodies are going to be affected by global warming, making knowledge of the water cycle essential for any kind of human activity. Entire regions on Earth would face extreme temperatures eventually associated with torrential rainfalls whilst other regions would experience scarcity of water and droughts.

In the GIFT workshop “Water!” all the different aspects of the water cycle will be described and discussed. Talks will focus on global freshwater availability and distribution, overexploitation of water, strategies for sustainable use of water in the future and the threats by environmental change. Particular regions where global warming will have a major impact, such as the regions depending on the water supply from the Himalayan, Alpine and Andes mountain glaciers will be used as exemplars. The use of naturally occurring isotopes to "fingerprint" sources of water in precipitation and rivers, and the presence of ‘ancient’ water beneath the deserts and other areas, will also be discussed.

Focus will also be put on climate model simulations for the 21st century, mitigation measures to reduce the magnitude of impacts of global warming on water resources, and water resources management and its impacts on other policy areas.

As in every GIFT workshop, contributions by the attending teachers on particular “off-the-program” activities that they may have had in their classrooms are most welcome, either as poster or oral presentations, even if their subject is not directly related to the theme of the workshop.

Also, a first step will be a guided visit to the Vienna Museum of Natural Sciences, on Sunday April 22 afternoon, followed by a small reception as an ice-breaker event.
Application to participate in the 2012 GIFT Workshop  
EGU General Assembly  
April 23-25, 2012 Vienna Austria

Grants are available to support teachers to participate in the 2012 Geosciences Information for Teachers (GIFT) Workshop at the 2012 European Geosciences Union (EGU) General Assembly in Vienna, Austria. Selected teachers will receive a travel/hotel stipend and free registration to the meeting.

Participating teachers will be selected based on their teaching experience and a supporting statement from their school administration. Selected teachers will be expected to attend the entire workshop and submit a statement within 1 year after the workshop on their impression of the workshop and how they plan to use (or have used) this experience in their future teaching activities.

To apply please submit the following information:

- Applicant name, contact information, E-mail address
- School name and address
- List the subjects you teach, and the ages of students
- The workshop will be conducted in English. Please describe your capability to understand and speak English.
- A description of any leadership activities you have taken at your school or in national educational activities (examples: training new teachers, developing curriculum, etc.).
- A letter of recommendation from the senior administrator in your school supporting your application (by attached pdf document).
- (Optional) There will be opportunities for teachers to present any creative science activities they have developed for their classrooms to other teachers at the workshop. These presentations can be in the form of a talk, a poster or a demonstration. If you would like to present a science activity, please provide a title and description for inclusion in the program.

Applications should be received as soon as possible and in any case no later than November 30, 2011.

Send your application via email to Carlo Laj (Carlo.Laj@lsce.ipsl.fr) or Jean-Luc Berenguer (jean-luc.berenguer@ac-nice.fr)

MORE INFORMATION

See the archive of the last GIFT Workshops:

http://www.egu.eu/media-outreach/gift/gift-symposia.html

http://www.atmosphere.mpg.de/enid/gift

http://gift.egu.eu/