



## Literacy and students' interest on Geosciences - Findings and results of GEOschools project

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GEOschools is a European project supported by the Lifelong Learning Programme. Among the main aims of the project were to investigate the interest secondary school students have on geosciences and the teaching strategies used. Also, the development of a guide for Geosciences Literacy at a European level (Fermeli et al., 2011).

GEOschools' literacy framework proposal is based on a comparative analysis of geoscience curricula in the partner countries (Austria, Greece, Italy, Spain and Portugal). Results of an "Interest Research" survey involved around 1750 students and 60 teachers from partner countries, combined with specific proposals by the project partners (Calonge et al., 2011).

Results of the GEOschools "Interest research" survey evidence students show a higher interest in those topics which have a potentially higher social impact, such as mass extinctions, dinosaurs, geological hazards and disasters and origin and evolution of life (including human evolution). These results provide an evidence base to justify why curriculum content and teaching strategies can be made more effective through focusing mainly on such "interest topics", instead of trying to follow an excessively rigid, or academic, development of teaching programs (Fermeli et al., 2013).

GEOschools literacy framework is summarized in 14 separate chapters, each including a brief description of the main themes of each subject, the intended learning outcomes as well as keywords and a bibliography. More particularly, the chapters of the framework describe what students should know and do, and how they should relate, as European citizens, to the geosciences. To face the challenges of the present and the future, modern citizens should be literate in natural sciences and, within the context of the geosciences, be able to:

- Demonstrate a knowledge and understanding of basic principles, models, laws and terminology of Geosciences.
- Know how and where to find and access scientifically reliable information about Earth at a national and international level.
- Recognize their responsibilities concerning geodiversity and Earth resources as responsible, world citizens.
- Understand planet Earth as a system
- Appreciate geodiversity and geoheritage as a key topic within local sustainable development programs.
- Know how to predict and mitigate the impacts of natural hazards and evaluate the most appropriate corrective measures.
- Demonstrate an ability to apply geoscientific knowledge in the real world and take appropriate decisions.
- Describe and explain basic geoscientific phenomena, data and procedures in familiar and unfamiliar contexts.

Finally, GEOschools project has proposed a series of teaching modules trying to build effective and enjoyable learning thorough good, academic teaching practice. In this way students should be able to develop a unique set of skills, combining geological knowledge with practical skills.

### Bibliography:

- Calonge, A. (2011). Curriculum comparison research: GEOschools programme, 7p. Available from [http://geoschools.geol.uoa.gr/pdfs/FinalRemarksCvComparison\\_EN.pdf](http://geoschools.geol.uoa.gr/pdfs/FinalRemarksCvComparison_EN.pdf). Accessed 10 January 2014.
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