

FIBONACCI: a European project



FIBONACCI: Design, implement, test and formalise a process of dissemination of inquiry-based teaching and learning methods in science and maths in Europe.

European authorities and the international scientific community acknowledge the importance of Inquiry-Based Science and Mathematics Education (IBSME) to develop an integrated strategy for scientific literacy and awareness from primary to secondary school, reinforcing scientific careers. *Scienceduc* and *Pollen* FP6 projects as well as *SINUS-Transfer* have successfully implemented IBSME in a large number of European cities. Europe is now facing the urgent need to disseminate such approaches and enable all member States to have access, understand and implement them in a way that fits their own specificities.

To go beyond best practices sharing and to provide effective know-how transfer at European level requires a dissemination model based on a systematic approach of IBSME at grassroots level, ensured by intermediary structures (universities, teachers training centres, research institutions...) with successful experience in local IBSME implementation. The FIBONACCI project defines a dissemination process from 12 Reference Centres to 24 Twin Centres, based on quality and global approach. This will be done through the pairing of the former, selected for their large school-coverage and capacities for transfer of IBSME, with 12 "Twin Centres 1" and 12 "Twin Centres 2". Twin Centres 1 are supposed to be one step further in implementing a systematic IBSME approach than Twin Centres 2. Both will receive training and tutoring for 2 years in order to become in turn Reference Centres and start disseminating.

Transversal work between partners will also be organised through **5 major topics** which will be explored through European training sessions and will lead to European guidelines in order to structure a common approach at European level.

They are the following:

- 1. Deepening specificities of scientific inquiry in mathematics;
- 2. Deepening specificities of scientific inquiry in natural sciences;
- 3. Implementing and expanding a Reference centre;
- 4. Cross disciplinary approaches;
- 5. Using the external environment of the school for science and maths education.

A scientific committee integrated by acknowledged experts in science and maths education will supervise the work. An external evaluation will also be implemented to check achievement and quality.

FIBONACCI will lead to the blueprint of a transfer methodology, valid for further Reference centre building in Europe. The project will be coordinated for 38 months by the Ecole normale supérieure (France), with a shared scientific coordination with Bayreuth University. The Consortium includes 25 members over 21 countries, with endorsement from major scientific institutions, such as Academies of Sciences. The project began on January 1, 2010.

Official website: www.fibonacci-project.eu

[European training session - Paris - March 2012](#)

ALL THE FIBONACCI PRODUCTIONS:

BACKGROUND RESOURCES:

- [Learning through Inquiry](#)
- [Inquiry in Science Education](#)
- [Inquiry in Mathematics Education](#)

COMPANION RESOURCES:

- [Tools for Enhancing Inquiry in Science Education](#)
- [Implementing inquiry in mathematics education](#)
- [Setting up, Developing and Expanding a CSME](#)
- [Integrating Science Inquiry across the Curriculum](#)
- [Implementing Inquiry beyond the School](#)