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# MPRI104 Pedagogy and Assessment of Science in the Primary Classroom

ECTS Value: 2 ECTS
Self-Study Hours: 24

Contact Hours: 10
Assessment Hours: 16

## Overall Objectives and Outcomes

The aim of this module is to provide a holistic view of science education in the primary curriculum, with a particular focus on inquiry-based science teaching and learning. Cross-curricular links with other subjects taught in the primary curriculum, as well as cross-curricular themes and 21st century skills, specified in the NCF, are also made.

By the end of this module, the learner will be able to:

### Competences:

a) Formulate an informed view on key pedagogical issues in science education.
b) Transfer knowledge on pedagogic practices concerning the teaching of science in the primary, to the particular school community.

### Knowledge:

a) Define the role of science education in the primary curriculum.
b) Plan and implement inquiry-based science activities.

### Skills:

a) Discuss the main pedagogical implications of inquiry-based learning to the learning of science at primary level.
b) Design and implement inquiry-based science activities which integrate cross-curricular themes and create cross-curricular links with other subjects in the primary curriculum.

## Assessment Methods

This module will be assessed through: Assignment

## Suggested Readings

### Core Reading List:

1) Zerafa, I. & Gatt, S. (2014). Implementing a science curriculum reflecting an inquiry-based approach in the upper primary years. *IPSE Journal 9*(2), 13-26.
2) Crawford, B. A. (2009). Moving science as inquiry into the classroom: Research to practice [Powerpoint slides]. *International Science Education Conference (ISEC 2009),* Singapore.
3) Harlen, W. (2012). *IBSE and how children learn* [Powerpoint slides]. Retrieved from La main à la pâte: http://www.fondation-lamap.org/

4) Hanauer, D. I., Hatfull, G. F. & Jacobs-Sera, D. (2009). Conceptualising scientific inquiry. In, *Active assessment: Assessing scientific inquiry, mentoring in academia and industry 2, 11-21.* doi: 10.1007/978-0-387-89649-6 2. Springer Publication.
5) Stiftung Haus der Kleinen Forscher (2013). *Educational approach of the "Little Scientists" initiative. Educators' guidebook: Ideas for educators in science, mathematics and technology.* Malta Council for Science and Technology, Kalkara.
6) Pri-Sci-Net Inquiry-based learning activities, project website (www.prisci.net)
7) Ortlipp, M. (2008). Keeping and Using Reflective Journals in the Qualitative Research Process. *The Qualitative Report, 13*(4), 695-705. Retrieved from http://www.nova.edu/ssss/QR/QR13-4/ortlipp.pdf

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