

T4_82 THE MLE-ENERGY SOFTWARE FOR ENERGY CHAIN MODELING

Federico Corni, *Physics Department, University of Modena and Reggio Emilia, Modena, Italy*
(federico.corni@unimore.it)

Enrico Giliberti, *Department of Social, Cognitive and Quantitative Sciences, University of Modena and Reggio Emilia, Modena, Italy* (enrico.giliberti@unimore.it)

Cristina Mariani, *Primary and Middle School "Istituto comprensivo di Tione", Tione di Trento, Italy*
(mariani.cristina1@alice.it)

Modelling is an important means to develop a scientific approach to problems since it helps students to get used to identify the relevant variables and the relations between them, formulating hypotheses, and designing experiments suitable to explore and prove such hypotheses [1]. MLE-Energy is an elementary modelling software for energy chain construction of natural processes [2] created for primary and middle school pupils, to initiate them in model-centred learning. This tool, created in flash platform to be used on interactive black board, is proposed as one of the various didactical materials produced within the project "Little scientists in the lab: Experiments & Models for science learning in primary school", funded by the Ministry of Italian Education, that proposes a "Model-centered Learning Environment" to build pilot activities, based on experimental and modeling approaches. MLE-Energy uses symbolic icons to represent carriers and transfers and guides the user in constructing the energy chain by means of some rules and the request of writing labels. In this contribution we present some preliminary results of experimentation of MLE-Energy during training courses for in service teachers. References [1] Gilbert J K and Boulter C J 2000 *Developing Models in Science Education* (Springer) [2] the software is inspired to the Karlsruher Physikkurs approach to energy. See the website <http://www.physikdidaktik.uni-karlsruhe.de/kpk/>