In the last few years, many European countries have developed an increasing interest towards CLIL (Content and Language Integrated Learning) which refers to any dual-focused educational context in which an additional language is used as a medium in the teaching and learning of non-language content. Official European documents continuously focus on CLIL, having a contribution to make to the Union’s language learning goals and to the promotion of multilingualism and intercultural competence. Italian institutions have triggered a series of initiatives to promote CLIL, especially in the secondary school context in Northern Italy. However, a lively interest in CLIL from the primary school teachers is increasing especially in using English to convey scientific contents, as also performed in an ongoing experimental research carried out as a part of a PhD programme at Sapienza University of Rome (Infante et al, 2008). This paper aims to present a short term model where the teaching of Physics through English to primary school children is developed in a blended learning environment. As it is well known, the advantages of face-to-face lessons combined with online activities are nowadays widely recognized also in language learning. A blended learning solution for teachers of Physics could be a suitable strategy for choosing appropriate delivery channels or as a mean for developing a sense of community and enhancing the quality of interaction among its members, in order to share tacit knowledge and increase individual effectiveness. The online section of the course will be mainly dedicated to collaborative activities both for scientific and linguistic objectives. The instruments used will mainly be wikis, since it is generally acquired that they help improve the teaching/learning process in BL courses. The primary school pupils are supposed to explore several learning procedures and negotiating skills such as: attention to the “connective” writing process (they are readers and writers, but also editors, reviewers and collaborators) and to the organization of the information and search for suitable materials.