The first part of this bachelor work deals with international research projects in the field of scientific education TIMSS (Third international mathematics and science study), PISA (Programme for international student assessment) and ROSE (Relevance of science education). The second one focuses on activities of European Union which are concerned with lack of pupil's interest in natural science. Several references from European Union's research have been published in my work. The main purpose of this work is determine how inquiry-based approach could be put into practise. Another part of the work is about this way of education. Some European projects which apply inquiry-based approach to education are described in this part. In the last chapter I presented Czech project "3V" which uses this new approach in biology.