

Global learning: how it fits the purpose of study and aims of the National Curriculum in mathematics

Teaching mathematics and statistics through international development topics is a clear way of achieving the purpose of study and aims of the new National Curriculum published in September 2013. The National Curriculum states the purpose of study in the following way:

Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

The purpose of study shows that mathematics focuses on solving real life problems, and it is clear that the challenges of international development are such a set of problems. The National Curriculum sets out its aims as follows:

The national curriculum for mathematics aims to ensure that all pupils:

- *become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately*
- *reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language*
- *can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions*

Global learning can help meet each of these aims:

- Data can be used to help young people *become fluent with the fundamentals of mathematics* – e.g. in early Key Stage 2 becoming familiar with basic number operations (addition / subtraction / multiplication / division and fractions) using international development data.
- Pupils can be encouraged to *reason mathematically* through using data to make an argument. Which country is more economically prosperous? Which country has reduced poverty most quickly in the last five years?
- Pupils *can solve problems by applying their mathematics to a variety of routine and non-routine problems*. A wide variety of problems can be created to be solved. Which country has made the biggest progress in the Human Development Index (<http://hdr.undp.org/en/statistics/hdi/>) this year? Why might this be?