

Spiritual Development in Mathematics

Spiritual education involves the awe and wonder of mathematics that is shown to children. Mathematics can be used to explain the world and the mathematical patterns that occur in nature such as the symmetry of snowflake patterns or the stripes of a tiger. There is a sense of wonder in the exactness of mathematics as well as a sense of personal achievement in solving problems. Further mathematics can also be used to consider the idea of infinity. The development of deeper thinking and questioning the way in which the world works promotes the spiritual growth of students. In maths lessons pupils are always encouraged to delve deeper into their understanding of mathematics and how it relates to the world around them.

Moral Development in Mathematics

Moral education concerns the use and interpretation of data that is becoming more prevalent in society. Pupils are given the opportunity to be aware of the use and misuse of data in all issues including those supporting moral argument.

Social Development in Mathematics

Social education in mathematics concerns pupils being given the opportunity to work together. Experimental and investigative work provides an ideal opportunity for pupils to work collaboratively. Mathematics also allows children to apply their own intuitive feelings and check these against what they have learnt in order to make more sense of the world.

Cultural Development in Mathematics

Cultural education concerns the wealth of mathematics in all cultures and the opportunities pupils are given to explore aspects of personal culture and identity through mathematics. Recognition is given to symmetry patterns, number systems and mathematical thinking from other cultures.

Examples of Spiritual, Moral, Social and Cultural Education in **mathematics** include:

- Pupils conducting an opinion survey on a moral issue
- Pupils investigating different number sequences and where they occur in the real world
- Pupils considering the development of pattern in different cultures including work on tessellations
- Allowing discussion and debate on the use and abuse of statistics in the media
- Allowing discussion on the cultural and historical roots of mathematics
- Pupils discussing the use of mathematics in cultural symbols and patterns
- Pupils learning how mathematics is used to communicate climate change and GDP.