

SMSC 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.

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 education in Maths 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 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 lessons in maths:

1. Pupils considering the development of pattern in different cultures including work on tessellations such as a beehive or symmetry of nature (Butterflies)
2. Fibonacci pattern
3. Explore the art of Ambigram (words that read in more than one way)



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Examples of Moral lessons in maths:

1. Pupils conducting an opinion survey on a moral issue
2. Pupils to have an awareness of sexist, stereotypical bias in materials – for worksheets to include female builders, male secretaries etc.
3. Population density – using the law in China for the number of children a family are allowed
4. Look at how to mislead people depending on how the data is viewed; rounding to a significant figure or the nearest 100 can skew data. Governments looking at unemployment figures depending if they are in power or want to be in power.

Examples of Social lessons in maths:

1. Allowing discussion and debate on the use and abuse of statistics in the media
2. Investigation when teaching questionnaires
3. In classrooms, we look for opportunities for pupils to use mini-whiteboards and large wallboard to promote self-esteem and build self-confidence.
4. We encourage collaborative learning in the classroom – in the form of listening and learning from each other and paired discussion / working with partners.
5. We help pupils develop their mathematical voice and powers of logic, reasoning and explanation by offering explanations to each other.

Examples of Cultural lessons in maths:

1. Pupils investigating different number sequences and patterns and where they occur in the real world, (snails shell)
2. Allowing discussion on the cultural and historical roots of mathematics, such Pythagoras' theorem
3. Pupils discussing the use of mathematics in cultural symbols and patterns
4. Mathematics is a universal language
6. Pupils to have the ability to use exchange rates for foreign travel

