Working with others : Vedic maths 1

Description

Working in the community sector involves knowing about and understanding a variety of cultures. This topic and **Vedic maths 2** explore the ancient laws of Vedic mathematics which features in both Hindu and Islamic contemporary cultures.

Activity 1: Creating the square

Activity 2: Tiling from the square worksheets 1 and 2

Resources

*Excel spreadsheet **Vedic square**, squared paper, colours, mirror cards, rulers.*

In Creating the square pupils explore the Vedic square which is based on digital roots. They will need first to create a 12 x 12 multiplication square and then create the conversion to the digital roots. The Excel spreadsheet Vedic square illustrates the result and highlights the number nine. There are a number of patterns for the pupils to recognise – for example, the square is symmetrical about the leading diagonal; some lines are the reverse of others; some lines contain all the digits between 1 and 9 but some do not. Ask them to try to explain and justify any patterns they notice.

Much of Vedic mathematics focuses on the patterns associated with the number nine. Joining up like numbers in the square produces a variety of tiles and patterns related to nine become apparent. Tiling from the square worksheet 1 supports this activity and leads into Tiling from the square worksheet 2. This starts with the pattern from the digital root 5. After finishing the tiling, the pupils should notice that the digital root 4 creates the same tiling. The activity is continued by pupils using the other possible Vedic square tiles – this is best carried out in a group of three so that the work can be shared and each pattern (digital roots 1 or 8, 2 or 7 and 3 or 6) can be completed by one member of the group. They can then compare their results.

The mathematics

This set of activities requires pupils to work with the multiplication tables, to calculate digital roots and to observe and interpret patterns. The Tiling from the square worksheet 2 also involves them in working with reflection.