

Maths

Intent

At Harvills, we intend to develop confident mathematicians through the following means:

- We promote a lasting interest, appreciation and enjoyment of mathematics.
- We enable each pupil to develop, within his/her capabilities, the mathematical skills and understanding required for further study.
- We encourage pupils to make links between different areas of mathematics in order to understand the full picture.
- We foster and develop imagination, intuition, creativity and logical thinking.
- We make each pupil aware that mathematics provides a powerful means of communication.
- We provide each pupil with such mathematics as may be needed for his/her study in other subjects.
- We develop independent learning skills in mathematics.
- We challenge the common misconception that it is acceptable to be 'no good at maths.'

Implementation

- The Harvills Maths Curriculum follows the main concepts of fluency, reasoning and problem solving.
- We plan from the 2014 mathematics curriculum, which divides the curriculum in to 7 units (8 for year 6): Number and Place Value, Addition and Subtraction, Multiplication and Division, Fractions, Decimals, Percentages and Ratio, Algebra (Year 6 and G&T), Geometry, Measure, Statistics
- The weekly plan consists of 1 arithmetic lesson and 4 reasoning-based lessons, using White Rose or Rising Stars.
- Every new concept (including mental strategies) is introduced following the teaching model: concrete – pictorial – abstract.
- In reasoning lessons, children are introduced to a problem, taught the skills required to solve it, given the opportunity to become more fluent in these skills and challenged to apply these skills, explaining their reasoning throughout.
- Lessons are self-differentiated, allowing all children to be challenged with no 'ceiling' on attainment.
- Children self and peer mark in order to assess how successful they have been and what their next steps will be.

Impact

- Fluency: children can recall facts, use and recall mathematical vocabulary and have a range of strategies across the curriculum.
- Problem solving: children can apply their mathematical skills to a range of problems, investigations and real life situations.
- Reasoning: children can explain their methods, spot and correct errors and mentor others through questioning and adapted explanations.