



Maths

National Curriculum in England:

'Purpose of study:

Mathematics is a creative and highly inter-connected 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.'

Rationale:

Mathematics involves knowing about numbers and number operations. It requires an ability to solve numerical problems, including those involving money and measure. It demands familiarity with the ways in which numerical information is gathered and presented in graphs, charts and tables. It also gives children confidence in taking increasing independence in using these skills to participate in investigations and solve mathematical problems. Children should also understand and be able to rationalise 2-D and 3-D shapes

Intent:

At St Eanswythe's we teach a mastery curriculum from the White Rose Scheme of learning. This means that teachers reinforce an expectation that all pupils are capable of achieving high standards in mathematics and that the majority of pupils will progress through the curriculum content at the same pace. Our aims in teaching mathematics are to:

- Develop a positive attitude towards mathematics so as to ensure confidence in developing and using mathematical ideas and strategies and diminish fears and anxieties.
- Ensure mathematics taught is meaningful and relevant to real life.
- Foster the qualities of perseverance, creativity and flexibility in being able to adopt different approaches when tackling problems.
- Encourage children to become fluent in mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Develop children's powers of reasoning to enable them to follow a line of inquiry, recognise patterns, conjecture relationships and generalisations and develop an argument, justification or proof using mathematical language.
- Solve problems by applying their mathematics with increasing sophistication, including breaking down problems into a series of simpler steps, recording their work in a systematic manner and persevering in seeking solutions.
- Enable the children to effectively communicate their understanding of maths using precise mathematical language.
- Develop the children's ability to use new technologies to solve mathematical problems with efficiency and confidence.
- Take ownership of their learning through being able to choose methods for recording their work, choose resources to support their learning and to take pride in their mathematical achievements.
- Develop links between mathematics and other curriculum areas.

Implementation:

Children's mathematical experiences will include:

- Whole class teaching to learn new concepts.
- Working in groups co-operatively to develop teamwork and communication skills.
- Paired work including mixed ability and ability pairs.
- Independent work to develop perseverance.
- Practical, investigative, oral, written and problem-solving activities.
- Development of mental strategies.
- Opportunity to develop individual methods of calculation.
- Opportunity to internalise and develop strategies to increase their own pace of work.
- Working to review and refine ideas
- Use of innovative technologies, such as use of computer software & iPads.

Impact:

Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential, including jobs that require a deep understanding of maths knowledge. Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations. Children demonstrate a quick recall of facts and procedures. This includes the recollection of the times table.

Evidence in skills:

- Pupils use acquired vocabulary in maths lessons, seeing a progression of this throughout the school. They have the skills to use methods independently and show resilience when tackling problems. Children show a high level of pride in the presentation and understanding of the work. Teachers plan a range of opportunities to use maths inside and outside school in order to develop the ability to recognise relationships and make connections in maths lessons.
- Pupils feel listened to and feel their opinions are respected. They are able to show empathy and compassion both in school and their wider community.

Outcomes:

- At the end of each year we expect the children to have achieved Age Related Expectations (ARE) for their year group. Some children will have progressed further and achieved greater depth (GD). Children who have gaps in their knowledge receive appropriate support and intervention. Interventions are used both in class and with specialist teachers to ensure that there is no delay in moving the learning forward for all learners.