



Intent Why do we teach this? Why do we teach it in the way we do?

Mathematics is essential for everyday life and understanding our world. It enables the development of pupils' natural ability to think logically and solve puzzles and real life problems. Pupils learn to think creatively and make links between mathematical concepts through exploring patterns in the number system, shape, measures and statistics. They make and discuss propositions, explaining their reasoning and justifying their answers. They develop the skills, knowledge and efficient methods of calculation necessary to support their economic future and problem solving in life. We want our children:

- To achieve fluency in mathematical concepts
- To recall and use maths facts
- To reason, problem solve and use maths knowledge in a variety of contexts
- To progress their maths knowledge from Year 1 to Year 6
- To enjoy maths, relish challenges and experience a range of opportunities

Implementation What do we teach? What does this look like?

By following a progressive curriculum, our pupils are able to revisit a topic, theme or subject several times throughout their school career. The complexity of the topic or theme increases with each revisit but new learning has a relationship with old learning and is put in context. We believe the benefits of teaching in this way are that the information is reinforced and solidified each time the pupil revisits the subject matter as it allows a logical progression from simplistic ideas to complicated ideas. Furthermore, pupils are encouraged to apply the early knowledge to later objectives.

Teaching and Learning

- The school uses the White Rose scheme throughout the school fed onto our curriculum map
- Lessons occur regularly and consistently
- We use the National Curriculum, WR scheme of work and school's calculation policy to ensure progression
- High quality and consistent teaching
- Offer fluency, reasoning and problem-solving opportunities
- Differentiate maths activities to suit all learners
- Make use of maths resources in lessons
- Implement one-to-one or small group interventions when need arises
- Whole school maths and enrichment days help to keep the profile of maths a high priority
- To focus on maths vocabulary in each topic
- We use the Maths Doodle apps to help children practise targeted and key skills

EYFS: Reception Year

In the EYFS foundation stage, children explore number and shape, space and measure (SSM) as separate strands. The Early Learning Goals for the end of reception year are as follows:

- Early Learning Goal (Number): Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.
- Early Learning Goal (SSM) Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shape.

Work is predominantly practical using a vast range of resources, e.g. numicon, and evidence is collated within Tapestry.

Assessment

- Ongoing formative assessment is recorded from Year 1 to Year 6 based on the Age-Related Expectations in Insight.
- At the end of each term, children from Year 1 onwards are assessed using NFER assessments and these are scored, tracked and monitored in Insight.
- Attainment grades are awarded to provide a snapshot at the end of each half term with relation to above, at, below or well below the national expectations, (scored as: 3,2,1,0). These are published to parents in addition to effort grades.
- Children in Year 4 sit the national multiplication tests and in Year 2 and 6 sit the national SATs assessments. Results are presented to parents.
- Children in Year 5 sit the CATs tests to provide a snapshot of their quantitative ability.

Monitoring

- Work scrutiny and lesson observation are part of the yearly monitoring cycle.
- Evidence of work is displayed on class walls and in maths exercise books.

Examples of Practice

- Maths trails around the school to solve problems
- Whole school maths day for the whole school in houses with a variety of maths challenges and problems to solve in groups.
- Enterprise days to practise handling money

Curriculum Leadership

- The maths curriculum leader is Jo Booth.
- There is a clear role in designing the curriculum, monitoring and improving.
- There is an action plan in place.
- There is a plan for scrutiny of work and analysis of data.
- There is provision to ensure the subject is suitably resourced.

- Staff training and CPD is available and encouraged. We attend the SAS maths curriculum leader's course each term.

The last maths review took place Autumn 2020, which involved questionnaire, pupil voice, resource audit, lesson observation and book look. Recommendations were fed into the maths action plan.

Impact What will it look like? By the time children leave school they will..

By the end of KS2, we aim for children to be fluent in the fundamentals of mathematics with a conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. They should have the skills to solve problems by applying their mathematics to a variety of situations with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios. Children will be able to reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language. This is shown by:

- Engaging lessons and children who enjoy maths and are proud of the work they produce
- Most children will achieve expected standards in maths AREs
- KS1 and KS2 data will remain consistent and at or above the national average
- Children will be able to recall number bond and times tables facts with speed and confidence
- Children will be able to independently reason and discuss and apply knowledge and skills to a range of maths problems
- Children are ready to begin the next stage of their mathematical journey