



Manor Primary School
Mathematics Policy



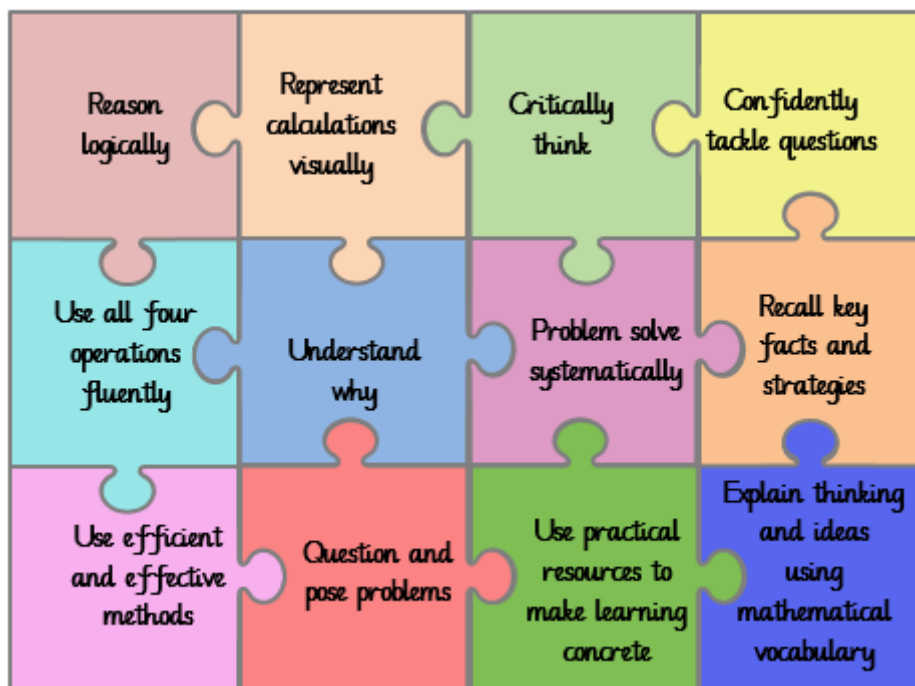
MANOR PRIMARY SCHOOL

MATHEMATICS Curriculum Design

INTENT

Our Mathematics curriculum is designed with the intent that each child, from EYFS to year 6, will become fluent confident and competent in the basics of mathematics, developing their ability to calculate, to reason and to solve problems through the learning of mental and formal written strategies and applying these skills to increasingly complex problems. Pupils will develop their understanding and the ability to recall and apply knowledge rapidly and accurately. This will be embedded through their time at school through varied fluency, problem solving and reasoning. Through this, children will be able to reason mathematically and solve problems by applying their mathematics systematically to a variety of real life problems with increasing sophistication. The outcomes should be numerate pupils, who are confident enough to tackle mathematical problems using their prior knowledge and number skill without immediately going to teachers or friends for help.

Our curriculum is designed to allow each pupil to:





IMPLEMENTATION

- The school's medium term planning, progression of knowledge and calculations policy will be used by teachers to plan, this will drive the journey of Mathematics for every year group ensuring that all learning is layered using concrete, pictorial and abstract.
- Promoting enjoyment and enthusiasm for learning through concrete/practical lessons, exploration and questioning
- Promoting confidence and competence with numbers and the number system – encouraging a 'growth mind set' and 'YET' attitude where children relish challenges and understand the importance of challenge and making mistakes in the learning process.
- Developing the range of mental calculations skills the children have and encouraging their use in a range of settings and contexts, through the use of medium term planning and the schools calculations policy that is specific for each year group.
- Developing the ability to solve challenging problems through systematic learning, decision-making and reasoning in a range of contexts, including real life problems
- Allowing children to discuss and present their work using mathematical language, diagrams, jottings and charts
- Exploring the features of shape and space and developing measuring in a range of contexts, rehearsing and building on skills each year, following the medium term planning and progression of knowledge
- Developing an understanding of the importance of mathematics in everyday life and how our mathematics curriculum can help them in developing cultural capital

Each class in both Key Stage 1 and Key Stage 2 will be provided children with a daily lesson for mathematics, which will be an hour in duration.

The structure of the lessons will have varied fluency, problem solving and reasoning at the heart of every lesson and use a variety of teaching and learning styles, resources and contexts in order to develop children's knowledge, skills and understanding in mathematics. We will do this through a daily lesson that has a high proportion of whole-class and group-direct teaching. During these lessons, we will encourage children to ask as well as answer mathematical questions to challenge their thinking and allow them to reason mathematically. They will have the opportunity to use a wide range of resources and apparatus appropriate to the learning to make the learning opportunities concrete.

Learning opportunities for all children will be matched to ability, this will be achieved through a range of strategies: differentiated group learning opportunities throughout all lesson (matched to the children's relative starting points); working interdependently to support



each other through peer learning and challenging children with open-ended problems or games. We also use classroom assistants to support children across all ability groups and to ensure that learning can be adapted to meet the needs of all our children.

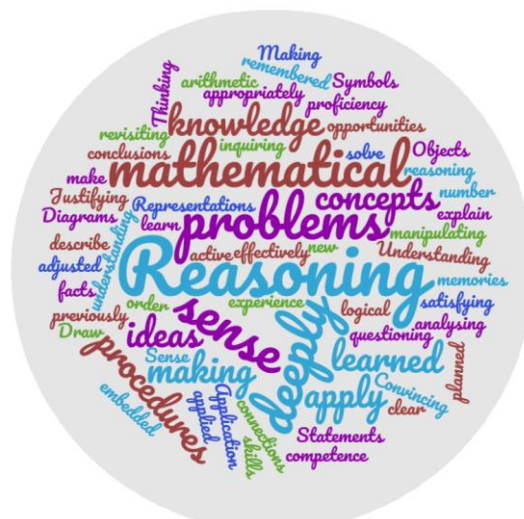
In addition, mathematics will play a part in other subjects, where children will be able to develop and apply their mathematical skills across our whole curriculum. For example, collecting and presenting data in Computing, Science and Geography.

All classrooms will be equipped with a wide variety of resources that will enable children to learn in a concrete manner, which will lead to clear understanding of numbers, the number system and strategies.

Early Years Foundation Stage

In EYFS, practitioners will develop a firm understanding of how children learn mathematics through tailored CPD and will ensure that there will be time dedicated for children to learn mathematics throughout the school day. This may be integrated through different contexts including storybooks, puzzles, songs rhymes and games.

Similarly to the rest of the school, manipulatives and resources will be used to ensure learning is concrete and accessible for all children and to encourage a discussion regarding mathematics. Learning will build on what the children already know and constant formative assessment will highlight and inform next steps for learning. High quality targeted support will be used in all teaching, including that of mathematics.





The Strategic Leader of Mathematics will ensure that the curriculum is reviewed and kept up to date with the latest research and methods. All staff will be informed, trained and have regular CPD to guarantee there is a common understanding of how to achieve high quality mathematics teaching and learning.

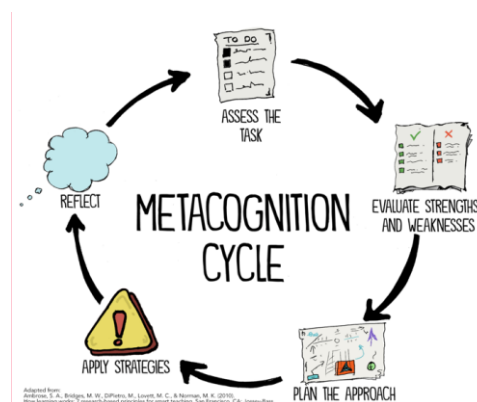
Our Children's Curriculum Charter

Our children are entitled to a world-class curriculum which enables them to:

- Feel confident and successful in their learning
- Have the attitude that although learning is often 'hard', mistakes are necessary for learning to happen.



- Enjoy learning and experience 'the magic of maths'.
- Have a voice and be able to choose how they wish to learn – the resources and strategies they feel are most appropriate.
- Understand that Mathematics is relevant to everyday living and a lifelong skill, by solving problems that are set in a real life context.
- To develop critical thinking and the confidence to question ideas in order to deepen their understanding.
- To become interdependent as well as independent learners.
- To become metacognitive learners, understanding their own abilities, what they need to do that will enable them to develop their abilities and the skill to review their learning accurately.





IMPACT

The impact of the curriculum design will lead to outstanding progress over time at all key stages, from the children's starting points on entry in EYFS. Children will leave school at least achieving Age Related Expectations. The curriculum, including the calculations policy, progression of knowledge and building blocks, will enable teachers to consistently plan and deliver lessons of the highest standard, matched to children's individual needs. By following the medium term planning, knowledge progression and calculations policy, children will have a clear sense of number and will confidently be able to apply this to different situations in order to solve problems that have a real life relevance. Children's outcomes will therefore be of the highest quality. Children will be: confident, resilient, self-motivated and independent. They will value the mistakes they make and understand that we only learn by reviewing mistakes with a thirst for challenge and the mind-set that enables them to believe that they can succeed with effort.

Review

This policy will be reviewed annually by staff and governors

Date of next review

September 2021