



# Maths Curriculum Statement



## Intent:

At Godwin Junior School we are committed to ensuring that all pupils are able to recognise the importance of maths as a highly interconnected discipline which is essential to everyday life, critical to science, technology and engineering, necessary for financial literacy and most forms of employment. We want all of our children to enjoy mathematics, to be curious learners and to persevere in order to experience success in the subject. We deliver lessons that are creative and engaging to enable children to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

To ensure that our pupils' mathematical understanding is built upon solid foundations, we follow the mastery approach; concrete resources and pictures are used to support learning before moving on to the abstract. Differentiation is achieved by emphasising deep knowledge and through individual support and small group intervention. Our Learning Powers Approach helps support children in maths to embrace their mistakes as this is an essential part of learning helping them to develop their perseverance and develop their collaborative and independent skills when they are challenged.

## Implementation:

We use an approach to mastery to ensure that every child develops an understanding and enthusiasm for Maths. Teachers carefully plan open-ended, challenging questions which stimulate our learner's curiosity in order for them to collaborate in making connections, identifying patterns and drawing conclusions about mathematical concepts and problem-solving. Misconceptions are addressed as they arise and teachers actively engage children in proving their ideas through oral or written work. We are confident that this mastery-based approach enthuses children about maths and ensures they can master mathematical skills and concepts which instil a love of learning as they progress through our school and beyond.

The structure of the daily maths lesson begins with Fluent in Five, aimed to develop pupil fluency and curriculum retention. The lessons will then follow the format detailed below.

The lesson begins with the 'In Focus' activity. The purpose of this part of the lesson is to raise curiosity and generate discussion amongst pupils around the concept to be studied in the lesson. It often is a problem-solving activity and once the pupils have had time to think and talk about the problem, the class teacher will then lead the class in a discussion - inviting pupils to agree, build or challenge each other's responses. This ensures that all learners are engaged and that all contributions are valued.

Children will then work on a 'Guided Practice' activity, where they will work either individually or with an adult. At this point, the children will work at their own pace.

Once the 'Guided Practice' task has been achieved the children will move to an 'Independent' activity. When this is completed, pupils will work on a suitable challenge. At all points in the lesson, all children will be working on the same topic. The teacher will provide targeted group support whilst motivating and inspiring all learners in order to develop their resilience. All lessons will be conducted in an environment of challenge, pace and a sense that all can and will achieve to be their best. Problem-solving aids pupils in developing their mathematical reasoning as well as allowing them to articulate their ideas. Through careful assessment and planning, teachers ensure that not only are all topics covered but that the topics are revisited strategically to embed understanding and long-term retention.

At least once a week, pupils are set a 'Journaling' task; this can be a task within a lesson or form the whole lesson. Here pupils will be encouraged to apply their mathematical thinking through a variety of different methods: group journaling, jottings and identifying and explaining mistakes. This allows them to further develop their Learning Powers through collaboration, evaluating their learning and persevering.

Teaching staff consider and plan for the needs of all pupils within the maths lessons in order to support and challenge them accordingly. Working closely with the school Inclusion Leader we explore strategies that can be used to create an inclusive learning environment for all. Teachers offer the necessary support and challenge for each individual to make progress. We ensure that maths is taught in creative and engaging lessons using a wide array of manipulatives to aid and support our children in their learning. We also offer intervention groups that allow for further opportunities for pre and post-learning. Children are taken in small groups to review topics or prepare for lessons to come. Through continued assessment and discussions with all adults and children concerned, misunderstandings or gaps in learning are regularly addressed on an individual, group or class basis as necessary.

Long-term and medium-term planning informs teachers in their short-term planning of the subject and ensures complete coverage of the Maths Programmes of Study for each year. Our spiralling curriculum allows for topics to be revisited several times over the year to ensure that the knowledge becomes embedded.

The three key aspects of fluency, reasoning and problem solving are integral to all planning and practice in maths. The children are given the opportunity for varied and frequent practice of their maths skills, with a focus on recalling and applying their knowledge rapidly and accurately. Reasoning is incorporated in our lessons as our children need to be able to describe, explain, convince, justify and prove their thinking, to be successful in this subject. Challenging and targeted questioning and modelled thinking by teachers is used to create an atmosphere of challenge and high expectation. Over the course of study, teaching is designed to help learners to remember in the long term the content they have been taught and to integrate new knowledge into larger concepts.

Correct mathematical vocabulary is an essential part of each lesson and our pupils need to understand this within the area they are studying and be able to make rich connections across other areas within this subject. Each lesson provides our learners with the opportunity to reason through their ideas and use their mathematical language to explore a line of enquiry and problem-solve routine and non-routine problems.

Through our maths curriculum, we aim to develop our Learning Powers, embedding essential skills that our pupils can use in all aspects of their learning. We also offer a wealth of enrichment activities to promote maths within our children's lives including extra-curricular maths activities.

We aim to encourage the deepest of learning for our pupils so that their knowledge can be transferred and applied in many contexts including other subjects e.g. science and art, as well as their everyday lives. Maths is widely promoted across the school and our classrooms have Working Walls that are utilised to support learning.

Teacher observations, subject leader monitoring - including pupil interviews - and focussed feedback combined with continued assessment in class ensures that teaching is responsive, targeted and effective - at all times, for all children, including those with special educational needs.

At Godwin Junior School we offer continued professional development and support to all of our teaching community so that they possess the confidence and subject knowledge to deliver their lessons

effectively. A wide variety of resources and equipment to support learning in maths is available. The use of interactive whiteboards ensures that electronic teaching materials and visual aids are always available to enhance understanding in the subject.

**Impact:**

The impact of our mathematics curriculum is that children understand the relevance and importance of what they are learning in relation to real-world concepts. Our learners tell us, through pupil voice surveys, that maths is promoted as being an exciting and enjoyable subject in which they can investigate and ask questions; they know - through the use of our Learning Powers - that it is reasonable to make mistakes because this can strengthen their understanding through the journey to finding an answer. This is evident through their high standard of work in which they clearly take pride; the components of the teaching sequences demonstrate good coverage of fluency, reasoning and problem-solving.

Our school promotes high standards for both teachers and pupils alike. Through robust monitoring, both internal and external, we ensure these expectations are met. This in turn results in our learners being confident to 'have a go' and choose the equipment they need to help them to learn, along with the strategies they think are best suited to each problem. Godwin pupils have a good understanding of their strengths and targets for development in maths and what they need to do to improve. The components of the teaching sequences demonstrate good coverage of fluency, reasoning and problem-solving. Our high-quality teaching, feedback and interventions support children to strive to be the best mathematicians they can be, ensuring all pupils have a good understanding of maths and that they leave Godwin with a skill-set that they can continue to develop throughout their educational careers.