

Godalming Junior School

Maths @ GJS - Our vision and how it is taught

This is a brief summary of our school's vision around maths and it outlines how our approach is implemented.

Our vision

1. We believe that **everyone** can learn and enjoy mathematics.
2. Mathematical learning behaviours are developed so that all pupils focus and engage fully as learners who reason and seek to make connections.
3. Curriculum design ensures a coherent and detailed sequence of essential content to support sustained progression over time.
4. A teaching for maths mastery approach is used throughout the school. Maths mastery means pupils acquire a deep, long-term, secure and adaptable understanding of the subject.
5. Teachers develop their specialist knowledge for teaching mathematics, working collaboratively to refine and improve their teaching.

How our vision is implemented

Planning:

Planning in mathematics is in line with the National Curriculum Programmes of Study for mathematics. Each year group maps out how many weeks will be spent on each different aspect of mathematics; within each of these units of learning, a clear sequence of learning objectives is established. Each daily session is planned to incorporate a coherent journey with small progressive steps in order for all children to become secure in the learning.

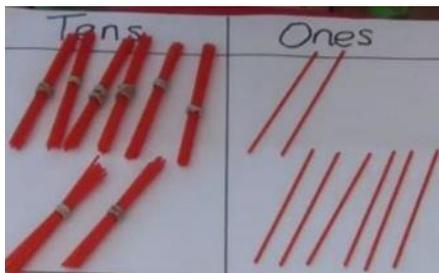
Teachers utilise a number of high quality resources to support with planning. Amongst others, these include: White Rose premium resources, Nrich investigations and Classroom Secrets Reasoning and Problem solving activities.

In the classroom and feedback:

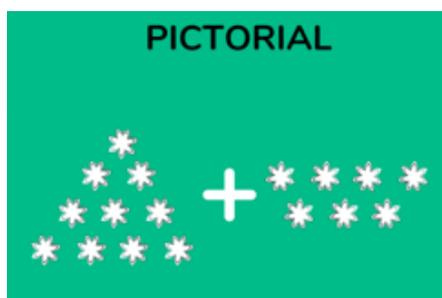
Pupils are taught mixed ability classes. In a typical lesson, the teacher leads back and forth interaction, including explanation, demonstration, questioning, short tasks and discussion. All of which enable pupils to understand, reason and apply their knowledge to answer questions, solve problems and think mathematically. There will be a mix of direct teaching, paired or group work and independent learning.

In Maths at Godalming Junior School: Everybody Counts.

We use a Concrete - Pictorial - Abstract approach to reveal underlying concepts in some lessons. Concrete means physical resources (or “manipulatives”) for example: Dienes or Numicon.



Pictorial representations act as a bridge between concrete objects and the abstract symbols that they will learn to use. For example:



Abstract means that children learn to use symbols to solve problems. For example:

$$13 + 9 = 22$$

The links between the three stages are made during teaching and all children are exposed to a variety of different representations as a result of planned conceptual variation. Manipulatives are removed at an appropriate stage when conceptual understanding is secure so they are not used procedurally during calculations.

The use of precise mathematical language enables all pupils to communicate their reasoning and thinking effectively.

Key number facts are learnt to automaticity, and other key mathematical facts are learned deeply and practised regularly, to avoid cognitive overload in working memory and enable pupils to focus on new learning.

Children are supported by the clear structure of the lesson, their peers, the adults in the room and scaffolds provided by the teacher. Children are challenged through higher order questioning, an expectation that they use precise mathematical vocabulary and the opportunity to try rich extension tasks.

Regular opportunities are provided for the children to investigate mathematical concepts through maths games and open-ended mathematical problems.

We provide timely written and oral feedback which consists of positive comments and further questioning to consolidate or stretch a child's understanding.

If there are any questions, please contact your child's teacher or the school's Maths Lead, Mr Maclver.

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