

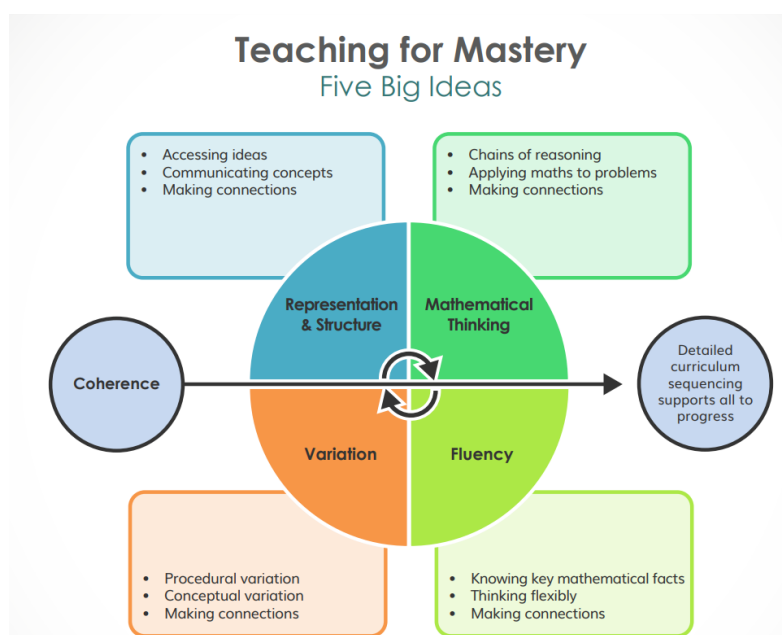


## Queensgate Maths Intent

At Queensgate Foundation Primary School our intent for mathematics is to provide a rich and progressive curriculum. We aim to enable children to develop in both fluency and conceptual understanding, thereby creating independent learners who reach their full potential and are able to apply their understanding and skills successfully to reasoning and problem-solving situations. Mathematical concepts are introduced using a 'Concrete, Pictorial and Abstract' approach allowing children clear models and images to aid understanding. We recognise the importance of developing pupils' mathematical vocabulary and how it enables pupils to discuss, explain and justify reasoning and understanding, both within mathematics and across the wider curriculum. We aim to foster a positive 'can do' approach, encouraging children to develop in confidence and resilience.

By adopting a mastery approach, it is our aim that all children develop the skills and knowledge needed and are well equipped for their future learning. Central to this are the 5 big ideas that underpin mastery in mathematics.

- Coherence
- Representation and Structure
- Mathematical Thinking
- Fluency
- Variation.



*Working together for a successful future*



## Math Implementation

At Queensgate Foundation Primary School children have daily maths lessons which follow the national curriculum. This is supported by a range of quality resources such as White Rose Maths, NECTM and Number Sense Maths. Lessons are engaging and sequenced carefully to ensure that knowledge and skills build on previous learning.

**Concrete, Pictorial and Abstract:** Children engage with a range of manipulatives, pictorial representations and abstract methodologies which are a fundamental part of mastery in learning. These serve to strengthen conceptual understanding.

**Fluency, Reasoning and Problem Solving:** Lessons include opportunities to develop fluency skills and build on knowledge and understanding which can then be applied to increasingly complex reasoning and problem-solving activities. The Polya Model approach to problems solving is used throughout the school. This provides a structured scaffold and encourages children to use annotations and jottings in their work.

**Vocabulary:** A high priority is given to vocabulary to ensure that children are exposed to, familiar with and using correct mathematical vocabulary. Stem sentences are used to support and encourage all children to express and communicate understanding with clarity.

**Times Tables:** We are committed to ensuring that all children are secure in their knowledge of times tables and related division facts. Times table are taught regularly. The Number Sense Fluency in Times Tables Programme is implemented. This provides structure and depth to the teaching of times tables to enable children to achieve fluency in essential multiplication and division facts and concepts. Fluent recall is practised through using Time Table Rock Stars.

**Number Sense Maths:** The Number Sense Maths scheme is taught from EYFS through to Year 3 in daily 15-minute sessions. This scheme provides a systematic, structured teaching approach which develops confidence and flexibility with number and fluency in addition and subtraction facts. The Numbots programme is used in KS1 as a tool to ensure all children achieve understanding, recall and fluency in mental addition and subtraction, so that they can move from counting to calculating.

**CPD:** All staff regularly undertake high quality CPD to ensure that they have the confidence, skills and knowledge required. This is achieved through subject leaders, external courses and support consultants. Best practice is shared between staff and all CPD is used to inform teaching and learning.

## **Impact**

At Queensgate the children understand the relevance and importance of their learning in relation to real world concepts. Children have a positive view of maths and they know that it is reasonable to make mistakes and that this will in fact serve to strengthen their learning. Children show resilience and are happy to 'have a go.' They are able to confidently choose the equipment and strategies they think are best suited to each task. Both internal and external moderation processes are implemented to ensure all teachers have a firm grasp of curriculum expectations and pitch together with opportunities to access best practice and initiatives.

## **Formative Assessment**

Teachers carry out formative assessments through AFL in each session giving children live feedback and guidance. Teachers are able to use this assessment to inform planning and identify those children in need of further challenge or those needing additional support. Interventions are implemented as necessary. From Year 2 to Year 6 a range of low stakes testing checks are used regularly to monitor progress in both arithmetic and times tables.

## **Summative Assessment and Data**

Assessments tests are completed by children at the end of each block using Headstart Primary Assessment Tests. These assessments serve to monitor progress, inform future planning and help to pinpoint areas or misconceptions that would benefit from further support or intervention. Throughout year, children in Year 6 carry out practise and 'mock' SATS style tests. Data from both these assessment procedures is entered on to a central system and is monitored and analysed by the maths subject leaders and SLT.

## **Subject Monitoring**

Subject leaders regularly monitor the quality and impact of the maths curriculum through pupil conferencing, learning walks and book looks. Staff are supported through regular CPD and sharing of external guidance or experience of best practice.