



## National Curriculum Aims

### The 2014 National Curriculum for Mathematics aims to ensure that all pupils:

Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language

Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

### Intent

At HPS, our intent is to provide a high-quality mathematics curriculum that nurtures a love of learning and develops confident, resilient, and independent mathematicians. We believe that all children can succeed in mathematics and are committed to ensuring that every child is equipped with the knowledge, skills, and mindset to apply their learning in real-life contexts.

Our curriculum aims to:

- Ensure pupils become fluent in the fundamentals of mathematics through deep conceptual understanding and rapid recall of key facts.
- Strengthen pupils' ability to apply mathematics flexibly when solving increasingly challenging problems, including those set in unfamiliar or real-life scenarios.
- Enable pupils to reason mathematically, follow a line of enquiry, and justify their thinking using accurate mathematical language.
- Foster an appreciation of number, patterns, and number operations so that mental and written methods can be applied efficiently and accurately.

Mathematics at HPS is meaningful, purposeful, and fun. We inspire curiosity, encourage creativity, and empower children to see themselves as capable and successful mathematicians. Mistakes are valued as opportunities for growth, and all learners are supported and challenged to reach their full potential.

### Implementation

Mathematics is delivered through a carefully sequenced, progressive curriculum from EYFS to Year 6, aligned with the National Curriculum and underpinned by the principles of mastery.

#### Early Years

Mathematics in EYFS is taught through hands-on exploration, high-quality interactions, and meaningful play. Children experience number, shape, space, and measure in rich, purposeful contexts that build strong foundations for future learning.

#### Key Stage 1 and 2

Across KS1 and KS2, pupils build on this foundation through:

- Daily mathematics lessons (minimum 45 minutes), taught using the mastery approach.
- A consistent focus on fluency, reasoning, and problem-solving.
- Use of the CPA (Concrete, Pictorial, Abstract) approach to secure conceptual understanding.
- Regular opportunities to revisit and embed learning through short-burst fluency, arithmetic sessions, and review lessons.

#### Times Tables and Arithmetic

- Taught through weekly times table activities, interactive games and concrete manipulatives.
- Times Tables Rock Stars used for homework and rapid recall practice.
- Weekly arithmetic practice to build fluency.

#### Language, Representation and Inclusion

- Use of stem sentences, speaking frames, and accurate mathematical vocabulary.
- Consistent access to manipulatives to support all learners.
- Scaffolded activities and peer/adult support to ensure that all pupils can work towards age-related expectations.

#### Cross-Curricular Mathematics

Children experience mathematics across wider subjects such as Science and Design & Technology. Reasoning and problem-solving are embedded throughout, with variation in representation to enrich discussion and deepen understanding.

#### Sequencing and Progression

Content is carefully sequenced to ensure coverage of statutory objectives, with clear progression in skills and knowledge. Topics are revisited through fluency practice, retrieval activities, and application tasks to support long-term retention.

### Impact

The impact of our mathematics curriculum is seen in pupils' growing confidence, enthusiasm, and ability to apply their understanding in a range of contexts. Pupils leave each key stage with a deep and secure understanding of mathematical concepts and are well-prepared for the next stage of their education.

Pupils demonstrate:

- Fluency in calculation and secure use of mental and written methods.
- Resilience and independence when tackling increasingly sophisticated problems.
- The ability to reason mathematically and articulate their thinking clearly and accurately.
- Confident use of manipulatives, diagrams, and models such as bar models, part-part-whole, and place value grids.
- Excellent performance in age related and above national expectations in school and statutory assessments

## Knowledge and Skills

As pupils' progress they will develop their skills and understanding of the different areas of mathematics, which will enable children to develop a deep understanding of concepts, so they become fluent and are able solve increasing more complex problems with accuracy. These areas are:

- Place value
- Four operations
- Fractions, decimals, percentages, ratios and proportion
- Position and direction, properties of shape
- Handling data, algebra and measures

In **Early Years** these are:

- Number (basic place value, operations and amounts of)
- Shape, Space and Measure

**An effective curriculum for Mathematics will promote:**

- Children to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

## Creativity

Our curriculum enables pupils to make sense of the world around them and we strive to enable each of our pupils to explore the connections between their numeracy skills and every-day life. Developing deep thinking and an ability to question the way in which the world works promotes creativity in children

Problem solving skills and teamwork are fundamental to mathematics through creative thinking, discussion, explaining and presenting ideas. Pupils are always encouraged to explain concepts to each other and support each other in their learning. Children will show their thinking through visuals, jottings, and multiple representations when problem solving. Thus, pupils realise their own strengths and feel a sense of achievement which often boosts confidence. Over time, they become more independent and resilient learners.

## Assessment

At HPS assessment is an integral part of teaching and learning and is a continuous process. Teachers make assessments through:

- regular marking of work.
- analysing errors and picking up on misconceptions.
- asking questions and listening to answers.
- facilitating and listening to discussions.
- making observations.
- post learning reviews for a specific blocks of work
- NFER Tests
- weekly arithmetic for Years 1-6
- standardised tests (optional KS1, Year 4 MTC and end of KS2 tests)
- formative and summative assessments (using Insight Tracker) carried out by teachers termly.

In Early Years, assessment happens continually to collect consistent and varied evidence. This then feeds into the continuous cycle of Observation, Assessment and Planning using Tapestry.

**Our Curriculum follows our school values: service, gratitude, excellence, compassion, integrity, respect**