RESPECT COURAGE INTEGRITY COMPASSION HOPE

MATHEMATICS SUBJECT STATEMENT

Aims
The school 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.

Learning Projects
Where possible, mathematics will be included in learning projects to provide 'real life' learning (for example: data handling in a geography learning project; measuring in a science learning project). In this case, the learning project can take place in the time normally allocated to maths.

Planning
In Key Stages 1 and 2, long term and medium term plans are adapted from Collins Busy Ants planning with some pupil book activities substituted for activities from the White Rose Hub.

Fluency and number work
Some number work is included in every lesson (for example in a starter activity if the main lesson focusses on measurement, geometry or statistics). The school follows the formal written methods used in Collins Busy ants to meet the statutory requirements at the end of Key Stage 2.

Reasoning and Problem Solving
Reasoning and problem solving activities are fundamental to our curriculum and most lessons are to include at least one of these. Whether an activity is aimed at fluency, reasoning or problem solving should be clearly indicated on the planning (e.g. by labelling or colour coding). The White Rose Hub activities are the primary source for these activities. The following reasoning and problem solving resources may be used: Talk It Solve It, We Can Do It!, Problem Solving Toolkit, Hamilton Trust Puzzles and Problems, Nrich.

Early Years Foundation Stage (EYFS)
Children are given opportunities to develop their understanding of number, measurement, pattern, shape and space, through a balance of adult focused and child initiated activities that allow them to enjoy, explore, practice and talk confidently about mathematics. The following resources are used to support planning: Nrich, Little Big Maths, Numbers and Patterns.

Assessment
Teachers assess children's learning as part of every lesson with the aim of addressing misconceptions as they arise. A range of assessment for learning strategies is used during mathematics lessons. These include: Learning Talk stampers; pupils' use of 'Traffic Lights' to evaluate their own work; and targets to improve performance.

Bookmarks are used to track the children's summative progress throughout the year. More formal assessments, based on teacher assessments and SATS style tests, are undertaken at least three times throughout the school year

and the results of these are used to assess progress against targets. There are statutory tests for pupils at the end of Year 2 and Year 6.

Displays

Each class has a maths display to either: celebrate maths; show methods; set a challenge; or provide resources.

Resources

Each class has a range of age-appropriate resources, readily available for children to use, including the following in all classrooms:

- Base 10 apparatus (e.g. Diennes)
- number lines
- number squares
- counters

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