MATHEMATICS SUBJECT RATIONALE (Mar'20)

CONTENT & SEQUENCING

In Early Years,

In both Key Stage 1 and Key Stage 2 we use a blocked curriculum, but with revisiting of topics throughout each year. We use the White Rose scheme as a starting point for our coverage– see Subject Narrative– but it is used flexibly to allow for the progress made by each cohort with each topic. Throughout each year group diagnostic use is made of ongoing assessment, in the form of both formative assessment in class, and end of topic summative assessment so that interventions can be focusses specifically on gaps in learning. There are regular booster groups driven by this.

The sequencing in each year group each year begins with place value and then number work and the use of operations. This is then built on by application of these skills in related topics such as money and fractions. There is full coverage of the National Curriculum. We also use the 'Inspirational Maths' resources for an annual week of maths designed specifically to address attitudes towards maths and developing a 'growth mindset'. We also take part in the annual NSPCC Number Day.

More able pupils also undertake specific projects eg UK Maths Challenge, Year 6 Interschools Maths quiz.

LINKS WITH OTHER SUBJECTS

We strive to make many links between Maths and other subjects.

Each topic plan starts with a number of identified links to 'real life' applications which teachers will explicitly cover during the half-term topic. Teachers also routinely draw links to Maths where appropriate, for example using scales and units in Science or cookery, number work in chronology or measuring and graphing rainfall in a Weather topic.

Beyond this, we also have regular STEM days (termly), where children work on a particular project which may well include the application of Maths skills—for example in measuring the speed and distance travelled of a vehicle over different surfaces . We have also developed our Outdoor Learning offer and use maths in our Orienteering activity days at a new venue in the village.

RETRIEVAL PRACTICE

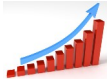
We adopt a range of different strategies to promote knowledge retention.

Working walls , including key vocabulary, are a feature in each classroom, making use of work recently completed in class. S

tarters to lessons routinely feature recapping of prior learning through for example the White Rose 'Flashbacks' resources.

Gap analysis through assessment is a strong driver for revisiting topics for individuals, along with the routine use of Plenary sessions in lessons to consolidate knowledge from the lesson. T

here is also use of a whole class working on a reasoning problem, for example in the context of money, which requires the retrieval of previously taught knowledge or skills perhaps in calculations, or in the conversion of units. In addition to this we use memory songs and poems to recall key facts, for example in number bonds to 10, or for times tables.



PROGRESS

Progress is assessed through classwork, and also termly summative tests.

In EYFS we track children against age expectations in each of the elements of 'Development Matters'.

In Key Stage 1 and 2 we track the % of children making expected or above expected progress using the progression matrices. There is a strong emphasis on ensuring tests are used diagnostically to identify gaps in learning and address them in future teaching.

ENRICHMENT

We run a number of enrichment events to develop positive attitudes towards Maths.

These include Inspirational Maths week, Number Day, Hethersett Cluster collaboration events—using Google Drive to share outcomes, STEM—inc Scratch coding club, Apple Robot club (both with strong mathematical elements within programming) and school outdoor learning projects often in the summer term.

VISION FOR CHILDREN

Our vision for children is driven by developing 'skills for life'. This is the key thread that runs through all the skills we teach in the curriculum.

In Maths, we want all children to be fluent mathematicians with good number sense, able to apply taught skills in different contexts and enjoy Maths. We want them to become resilient problem-solvers, relishing new challenges and able to persevere and try out different approaches when faced with problems. We also want them to be able to recognise the value of Maths in their everyday lives, both now and in the future.