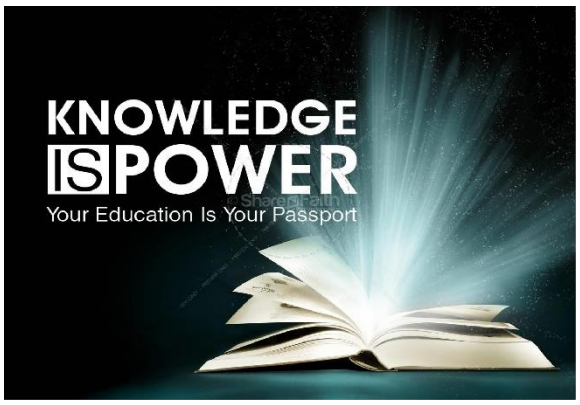
Henry Whipple Primary School

HENRY
PRIMARY SCHOOL
Believe Belong Achieve
WHIPPLE

Maths



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1	Intent / Implementation / Impact Subject area statement

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INTENT: (vision)

At Henry Whipple we…

- Believe all children can achieve in mathematics through a mastery approach to teaching and learning and belong to a culture of confidence, independence and reflection in Maths.
- Teach for secure and deep understanding of mathematical concepts through manageable steps
- Teach to ensure mastering of essential mathematical knowledge and vocabulary
- Embed a deeper understanding using a concrete, pictorial abstract approach so that pupils understand what they are learning and why rather than learning to repeat routines

We aim for all pupils to be…

- Fluent in the fundamentals of maths so they develop conceptual understanding and have the ability to recall and apply prior knowledge rapidly and accurately
- Able to reason mathematically by following a line of enquiry, making generalisations and developing an justification and proof using mathematical language
- Able to solve problems by applying their mathematics to a variety of problems including real life scenarios

IMPLEMENTATION: (how)

Our vision for Mathematics is translated into practice through adopting certain principles and features of a mastery approach…

- Following the White Rose Schemes of Work and calculation policy to ensure a consistent approach to teaching
- The large majority of pupils will progress through the curriculum content at the same pace. There is individualized support and intervention in place where needed
- Key vocabulary is introduced and revisited regularly to develop language acquisition
- Our metacognitive whole school approach to teaching supports retrieval practice so that vocabulary can be built upon meaningfully and retained in long-term memory
- Regular number practice is essential in creating 'automaticity' and 'arithmetical proficiency' – being able to recall as many facts as possible quickly and accurately. This is crucial as it frees up the working memory to concentrate more on the underlying concepts being taught. This will be done as a daily 10 minute (at least) aspect of the mathematics lesson – known as Number Sense.

- Times tables and related facts will be taught in addition to what is set out in the White Rose Long Term Plan.
- Carefully chosen resources, languages structures and vocabulary are consistent across school to foster deep conceptual and procedural knowledge
- NTS standardized testing and pre/post White Rose assessment tasks are used to support teacher's formative assessments and judgements. Children's books evidence progress

IMPACT

We know our curriculum works for our pupils through…

- Tracking of progress against core year group expectations and End of Key Stage outcomes
- Pupil voice impact showing evidence of confidence and enthusiasm for mathematics using appropriate vocabulary to reason and justify
- Pupils making connections to other curriculum areas and maths as a wider life skill
- Pupils demonstrate a quick recall of facts and procedures. This includes the recollection of the times table.
- Pupils show confidence in Believing that they will achieve.
- Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.
- Pupils show a high level of 'book proud' in the presentation and understanding of their work

2	Curriculum on a page overview

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MATHEMATICS TEACHING AT HENRY WHIPPLE:

<table>
<tr><td rowspan="2">We believe all children can achieve in mathematics through a mastery approach to teaching and learning and belong to a culture of confidence, independence and reflection</td><td colspan="3"><u>Big ideas</u>
Mastering of mathematical knowledge and vocabulary

Deeper mathematical understanding using a concrete, pictorial abstract approach</td></tr>
<tr><td colspan="3"><u>Content and sequencing</u>
Number sense and fluency take priority

White Rose adapted to the needs of our pupils ensuring carefully sequenced building on prior knowledge, vocabulary and concepts are progressive and built upon

The large majority of pupils progressing through content at the same pace with individualized support and intervention where needed

Carefully chosen resources, are consistent across school ensuring deep conceptual and procedural knowledge</td></tr>
<tr><td><u>Fluency</u>
Focus on ‘automaticity’ and ‘arithmetical proficiency’ to free up working memory and avoid cognitive overload

Explicitly taught and practiced daily in a variety of ways

Recall and apply rapidly and accurately</td><td><u>Reasoning & problem solving</u>
All pupils are expected to reason mathematically

Choose & use accurate mathematical language to make generalisations, justification and proof

Applying mathematics to a variety of problems including real life scenarios</td><td><u>Vocabulary</u>
Accurate mathematical vocabulary and languages structures are and modelled

Vocabulary is progressive so can be built upon meaningfully

Vocabulary is revisited regularly to develop language acquisition and understanding</td><td><u>Knowledge retrieval</u>
Pupils revisit key concepts and vocabulary through regular retrieval practice so that learning is embedded within long-term memory.

Assessment is used to assess gaps in understanding and to inform sequences of learning so all pupils achieve</td></tr>
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