Eastcombe Primary School

Curriculum Statement for Maths

At Eastcombe Primary School, we are committed to providing our children with a curriculum that has a clear intention and impacts positively upon their needs.

National Curriculum Intent

The national curriculum for mathematics intends to ensure that all pupils:

1. 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

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

3. 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

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into topics, but pupils should make deep connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly complex problems. They should also apply their mathematical knowledge to science and other subjects. The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who are secure in their understanding are challenged through problem solving and reasoning questions. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

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<table>
<tr><td>Intent</td><td colspan="4">When teaching mathematics at Eastcombe, we intend to provide a curriculum which caters for the needs of all individuals and sets them up with the necessary skills and knowledge for them to become successful in their future adventures. We aim to prepare them for a successful working life. We incorporate sustained levels of challenge through varied and high quality activities with a focus on fluency, reasoning and problem solving. Pupils are required to explore maths in depth, using mathematical vocabulary to reason and explain their workings. A wide range of manipulatives are used and pupils are taught to show their workings in a concrete, pictorial or abstract form. They are taught to explain their choice of methods and develop their mathematical reasoning skills. We encourage resilience and acceptance that struggle is often a necessary step in learning. Our curriculum allows children to better make sense of the world around them recognising the link between mathematics and everyday life. Reception children are expected to become proficient in the Early Learning Goals of problem solving, reasoning and numeracy in the EYFS curriculum.</td></tr>
<tr><td rowspan="2">Underpinned by</td><td>The teaching of fluency</td><td>The teaching of problem solving</td><td>The teaching of reasoning</td><td>A vocabulary rich environment</td></tr>
<tr><td>We intend for all pupils to become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time. As a result, pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.</td><td>We intend for all pupils to 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.</td><td>We intend for all pupils to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.</td><td>We intend to create a vocabulary rich environment, where talk for maths is a key learning tool for all pupils. Prior knowledge of key vocabulary is a driver for pupil understanding and develops the confidence of pupils to explain mathematically.</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td>Implementation</td><td colspan="4">We implement our approach through high quality teaching delivering appropriately challenging work for all individuals. We have a calculations policy that has been developed and is aligned to the National Curriculum objectives and methods. In using our policy, we can be confident throughout the school, that the hard work we put into teaching the children each year to calculate, will be consolidated and extended the following year. By agreeing on the use of strategies and mathematical language the children will be taught in a consistent way in all classes, developing their understanding as they progress through the school.
Maths is taught daily in each class supported by a teaching assistant. EYFS, Year 5 and Year 6 are taught as discreet year groups, whilst Years 1/2 and 3/4 are taught as mixed year groups. We use a range of mathematical manipulatives in classrooms to aid and support our children in their learning, these include; Numicon, Base10, counters, 10s frames, fraction walls etc. We also use a range of planning resources including those provided by the White Rose Hubs, NCETM, NRICH, mathsbox and Twinkl.</td></tr>
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<tr><td></td><td colspan="4">Throughout each lesson formative assessment takes place and feedback is given to the children through marking and sometimes next step tasks are given to ensure they are meeting the specific learning challenge. The teaching of maths is also monitored as part of the school's monitoring cycle through book scrutinies, planning scrutinies, learning walks, lesson observations and pupil voice.
We continuously strive to better ourselves and frequently share ideas and things that have been particularly effective. We also take part in training opportunities and regional networking events.
Through our teaching we continuously monitor pupils' progress against expected attainment for their age, making formative assessment notes where appropriate and using these to inform our discussions in termly Pupil Progress Meetings and update our summative school tracker. We use end of unit and termly White Rose assessments to determine children's progress and attainment. The main purpose of all assessment is to always ensure that we are providing excellent provision for every child. We carefully plan small group interventions to target children who need more time to consolidate their learning – these interventions may come in the form of a pre-teach, fluency work, or revision sessions. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content.</td></tr>
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<tr><td rowspan="2">Impact</td><td colspan="4">At the end of each year, pupils have gained a deepening understanding of core maths skills.</td></tr>
<tr><td>PUPIL VOICE
Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they love learning about maths. They can articulate the context in which maths is being taught and relate this to real life purposes.</td><td>EVIDENCE IN KNOWLEDGE
Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential.</td><td>EVIDENCE IN SKILLS
Pupils use acquired vocabulary in maths lessons. They have the skills to use methods independently and show resilience when tackling problems.</td><td>BREADTH AND DEPTH
Teachers plan a range of opportunities to use maths inside and outside school.</td></tr>
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