

# Halesowen C of E Primary School



We care, we trust, we believe.

We share, we enjoy, we achieve.

**Maths Curriculum**



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### School Vision

Halesowen Church of England Primary School was a school built for the local community. Right from the beginning it was an inclusive school built on strong Christian beliefs. It is our duty to ensure that this deeply Christian core runs through everything we do at Halesowen C of E in the modern day.

We believe children can flourish if they are loved and valued. We have high expectations of everyone because we know they can achieve if someone believes in them. We trust each other and are proud that we are one big family. We care about each and every one of our families. We enjoy the job we do and make school a fun place to be. We share this place Halesowen C of E; a place special to all of us, a place where we can feel safe, a place where we can learn and thrive together.

### Curriculum Vision

At Halesowen C of E we want all children to have access to a meaningful, fun and exciting, curriculum which is rich with first hand experiences and language. We will ensure pupils are given the opportunities to achieve. We believe that:

“A child is like a butterfly in the wind. Some can fly higher than others, but each one flies the best it can. Each one is different, each one is special, each one is beautiful.”

We value all of our children irrespective of background, culture or academic ability and want them all to experience the breadth of curriculum subjects we offer allowing them to develop their own preferences and interests which they can foster and develop as they learn grow and move on to their next phase of education.



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### Curriculum Intent

<b>STATUTORY REQUIREMENTS AND NON- STATUTORY GUIDANCE</b>	<ul style="list-style-type: none"><li>• EYFS:- Statutory EYFS framework and Early learning goals. Use of Development Matters 2021- taken predominantly from the Mathematics section. Reception follow the White Rose Scheme.</li><li>• Key stage 1 and 2: - National Curriculum. At school we follow the White Rose scheme.</li><li>• Use of the document “Teaching a Broad and Balanced Curriculum for Education Recovery”</li><li>• Use of additional resources such as (but not limited to) Twinkl, White Rose Maths, Deepening Understanding, Classroom Secrets,</li><li>• NCETM, NRich, Maths Whizz, Times Tables Rock Stars, Early Years Maths (Karen Wilding), Reddy Made Maths (Antony Reddy).</li></ul>
<b>PROVISION</b>	<ul style="list-style-type: none"><li>• Maths is one of the core primary subjects. This is taught as a daily session throughout the school.</li><li>• All year groups (EYFS-Year 6) plan their maths based upon White Rose Maths. We follow their schemes of work to ensure full coverage of the maths National Curriculum, and ensure clear progression is made in and across year groups.</li><li>• Alongside the White Rose Maths schemes of work, we use complimentary approaches to help children build a strong sense of number.</li><li>• To support the children building strong mental maths skills across school, we follow our own Mental Maths overview and the children are taught from this daily during their maths session.</li><li>• In EYFS we also use Karen Wilding Early Years Maths to support children’s early number sense and ability to subitise. Across EYFS, KS1 and where appropriate in KS2, we use a practical approach to help build number sense, following Antony Reddy’s concrete/ pictorial/abstract focus. This helps children to develop a confidence to play with numbers and deepens their understanding of how numbers are “built”.</li><li>• In EYFS we have a dedicated daily learning slot for Maths, as well as the use of maths enhancements in our classroom and outdoor environments to help consolidate their learning. Children also have access to a range of familiar maths equipment in their continuous provision, which they can freely access and use in their learning.</li><li>• In Key Stage 1 and 2 Maths is a daily session lasting approximately one hour. These sessions include: recap/ review/ revisit of previous learning; new learning and opportunities to apply their new knowledge to problem solving or reasoning.</li><li>• Key Stage 2 also have additional maths intervention or pre-teach time, using Maths Whizz and an opportunity to practise times tables through Times Tables Rock Stars.</li><li>• In KS2 children who require additional maths interventions to help fill gaps in their knowledge are taught daily using Numberstacks.</li></ul>



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<b>KNOWLEDGE</b>	<ul style="list-style-type: none"> <li>• Maths is a creative and highly inter-connected discipline which is essential to everyday life. It is critical to science, technology and engineering, and necessary for most forms of employment. Our curriculum aims for children to become fluent in the fundamentals of mathematics. Through varied and frequent practice pupils will develop a conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.</li> <li>• Maths knowledge can be split into four key areas: 1) Number 2) Geometry 3) Measurement 4) Statistics</li> <li>• Number builds knowledge in the following areas: understanding of number; place value; addition, subtraction; multiplication; division; fractions; decimals; percentages; ratio and proportion; algebra and solving number problems</li> <li>• Geometry builds knowledge in the following areas: 2D shape; 3D shape; angles and lines; position and direction; and solving problems involving shape</li> <li>• Measurement builds knowledge in length; height, mass/weight; capacity and volume; temperature; time; money; perimeter, area and volume and solving problems involving measure</li> <li>• Statistics builds knowledge in presenting and interpreting data and solving problems using data</li> <li>• Once an area of knowledge has been introduced, it will be revisited and reviewed and the knowledge deepened or expanded throughout the year and in subsequent year groups. This allows children to regularly review and consolidate their prior learning, and aids their retention of knowledge.</li> </ul>
<b>SKILLS</b>	<ul style="list-style-type: none"> <li>• In each area of mathematics, alongside building a fluency of mathematical knowledge, children are taught a range of skills to apply their knowledge in different contexts.</li> <li>• Children are taught to reason mathematically by following lines of enquiry, conjecturing relationships and generalisations and developing an argument, justification or proof using mathematical language.</li> <li>• Children are also taught to solve problems by applying their mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering to seek solutions.</li> <li>• Transfer of skills encouraged across different subjects for example creating and recording data in a Science experiment, comparing temperatures in Geography, understanding differences between dates in History.</li> </ul>
<b>MEANINGFUL START POINTS</b>	<ul style="list-style-type: none"> <li>• Children need to know where subjects exist in real life. “We are Mathematicians”. They need to understand what Maths is and how it can be used in their everyday lives- now and as they grow into adults.</li> <li>• Retention of knowledge and skills is a key focus, as maths topics build on previous knowledge learnt. As a start to our maths lessons children complete a starter activity which recaps something learnt sometime ago (Blast from the Past), reviews an aspect of the previous lesson (Last Lesson) and challenges children to apply this learning (Time to Think). These sheets instruct our teachers AFL, meaning that children can be supported or challenged appropriately to their needs.</li> </ul>
<b>VOCABULARY AND LANGUAGE</b>	<ul style="list-style-type: none"> <li>• Children should build a bank of subject and topic specific vocabulary – understanding meanings and define words then use in the correct context.</li> <li>• They should use language to question, enquire, compare, contrast, explain, justify and debate in a mathematical context.</li> </ul>



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	<ul style="list-style-type: none"><li>Spoken language is vital for pupil's development across the curriculum- cognitively, socially and linguistically. The quality and variety of language that children hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. Children will have regular opportunities to develop these skills through group and class discussions.</li></ul>
<b>ENRICHMENT OPPORTUNITIES</b>	<ul style="list-style-type: none"><li>As maths is such a diverse and inter-connected subject, children will have opportunity to apply their maths skills and knowledge to STEM projects, in Science and DT, in a practical and engaging way.</li><li>Children need to understand how maths can be used in their school lives outside of lessons for example children have the opportunity to collect and count house points, monitor their house totals and comparing scores, counting money raised for charity etc.</li><li>Allowing children to understand how maths may be influential in their future. Using opportunities such as Young Enterprise, allows children to manage money, amounts and time, in a meaningful way. Charities and banks such as NatWest, Barclays have resources which introduces children to how they will need to apply their maths knowledge in their future to pay, bills and shopping. During charity or fundraising events such as Children in Need or Comic Relief, children could be involved in counting and analysing the donations collected e.g. which event/ stall raised the most money?</li><li>Making the most of local opportunities- children could go to Asda or greengrocers to buy food needed for their DT/ Cooking projects.</li><li>Trips and visits can have maths links and there are also opportunities through the local authority from time to time e.g. maths champions</li></ul>
<b>INDIVIDUAL DEVELOPMENT</b>	<ul style="list-style-type: none"><li>Ensure equality so all children can access learning (SEND). Consider ways children who struggle with English skills can access and present learning, or children with physical impairments can access tools and resources. Scaffold more difficult mathematic concepts by using visual aids etc.</li><li>Allow opportunities for curiosity and fascination in all subjects and topics- create awe and wonder about the world they live in.</li><li>Make time for children to be inquisitive and develop learning in their own way- let them own their learning journey.</li><li>Nurture ambitions and aspirations- talk about the variety of careers that can use their mathematical skills e.g. banking, engineering, computing.</li><li>Develop a love and curiosity for problem solving and logical thinking.</li></ul>