

Oldswinford CofE Primary School



‘Believe, achieve and shine brighter together’

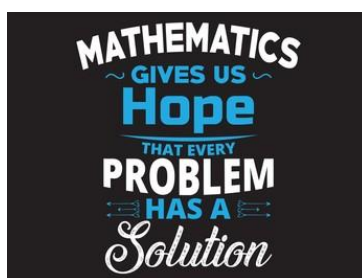
At Oldswinford Church of England Primary School we believe that there is a light which shines within each of us – a light that has been given to us by God, which we should use to help us achieve great things.

We believe it is our job to help that light to shine in all that we do and all that we try to do.

Our Approach to the Teaching and Learning of Maths



Subject Intent



Why do we do what we do in this subject (aims)?

At Oldswinford Primary the intent of our mathematics curriculum is to design a curriculum, which is accessible to all and will maximise the development of every child's ability to thrive as individuals and succeed in academic achievement. At Oldswinford children come into school with varied experiences of maths. We therefore have created a curriculum that caters for all children, challenging the higher attaining children and supporting the lower attaining children. Our curriculum can be flexible depending on a cohort of children so that we can nurture and support the well-being of all members of our community. We deliver lessons that are creative and engaging. We want children to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. We intend for our pupils to be able to apply their mathematical knowledge to science and cross curricular subjects. We want children to realise that mathematics has been developed over centuries, providing the solution to some of history's most intriguing problems, by a diverse group of mathematicians such as Katherine Johnson, Isaac Newton or Muhammad ibn Mus al-Khwarizmi. We want them to know that it is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. As our pupils progress, we intend for our pupils to be able to understand the world, have the ability to reason mathematically, develop resilience, have an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Subject Implementation

How do we ensure our intent becomes a reality?

At Oldswinford, children are taught maths daily covering a broad and balanced curriculum.

The national curriculum for mathematics 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.

We primarily use White Rose maths scheme to develop the use of concrete, pictorial and abstract approaches before moving onto fluency, problem solving and reasoning. We believe the

understanding of number and being able to manipulate number is the first crucial step to a child's mathematical understanding. From reception we create a rich, inquisitive learning environment for the children. We want each child to feel confident in mathematics and be able to choose which model suits them to solve calculations and problems through a mastery approach. We understand that not all children work at the same pace and children come into school at different starting points, so the teaching staff have the flexibility to spend longer on fluency if it is needed or less time on fluency and more time on problem solving and reasoning, depending on the cohort. We aim for children to build on knowledge each year whilst still being able to review and practise previous year groups' objectives. As well as their daily maths lessons, the children will complete a quick recall of number facts/calculations that are developed over time as the objectives are taught (including recall of previous year group facts). Where it seems appropriate we link concepts so that children do not see objectives as standalone. For example, in year 3 children should know basic fractions from year 2, so they can add fractions at the end of an addition unit rather than waiting for a fraction unit so that they can see skills are transferable. Children are not expected to do 'more of the same thing', if they are secure in a concept, they will be challenged to move on to problem solving and reasoning. If children are not sufficiently fluent with earlier material, they will be targeted through interventions to consolidate their understanding. Some children may get regular targeted feedback and support. All children, at some point, will be exposed to problem solving and reasoning in lessons. Knowing the correct mathematical vocabulary is a priority in school. Using mathematical vocabulary is progressive and built on across year groups. SEND children are supported as needed through staffing, scaffolding or use of manipulatives.

Subject Impact

What are the outcomes for our children in this subject?

Through our carefully designed curriculum, by the time children leave Oldswinford they will:

To know that
maths is essential
for their future
job.

To select
appropriate tools
to solve problems.

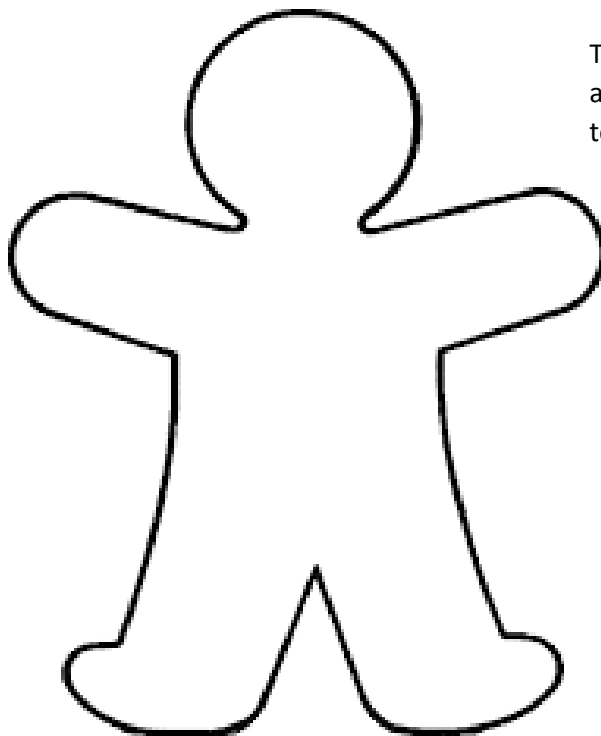
Be able to problem
solve and reason.

Use
mathematical
vocabulary
effectively.

To select
appropriate
strategies.

Have a love of
maths.

Apply their
knowledge across
other areas of the
curriculum.



How do we know that we have achieved these outcomes?

Throughout each lesson formative assessment takes place and feedback is given to the children. Teacher's then use assessment for learning to influence their planning and adapt their teaching best to help children to progress. Monitoring takes place each half term by the maths coordinator through book trawls, pupil questionnaires and learning walks. At the end of each term, teachers use the end of term White Rose assessments alongside their formative assessments to determine children's progress and attainment which is inputted directly into our assessment system, Integris. Year 6 may use previous SAT's tests for a more accurate assessment.

The expectation is that the majority of children will move through the curriculum at broadly the same pace. They will be able to recall facts and procedures and will have the flexibility and fluidity to move between different contexts and representations of maths. Relationships and connections in maths will be made and we will know it has been mastered by children being able to show concepts using mathematical language to explain their ideas and independently apply the concepts to unfamiliar situations.