

Dawley C of E Primary Academy



Enriching Learning, Enriching Life'

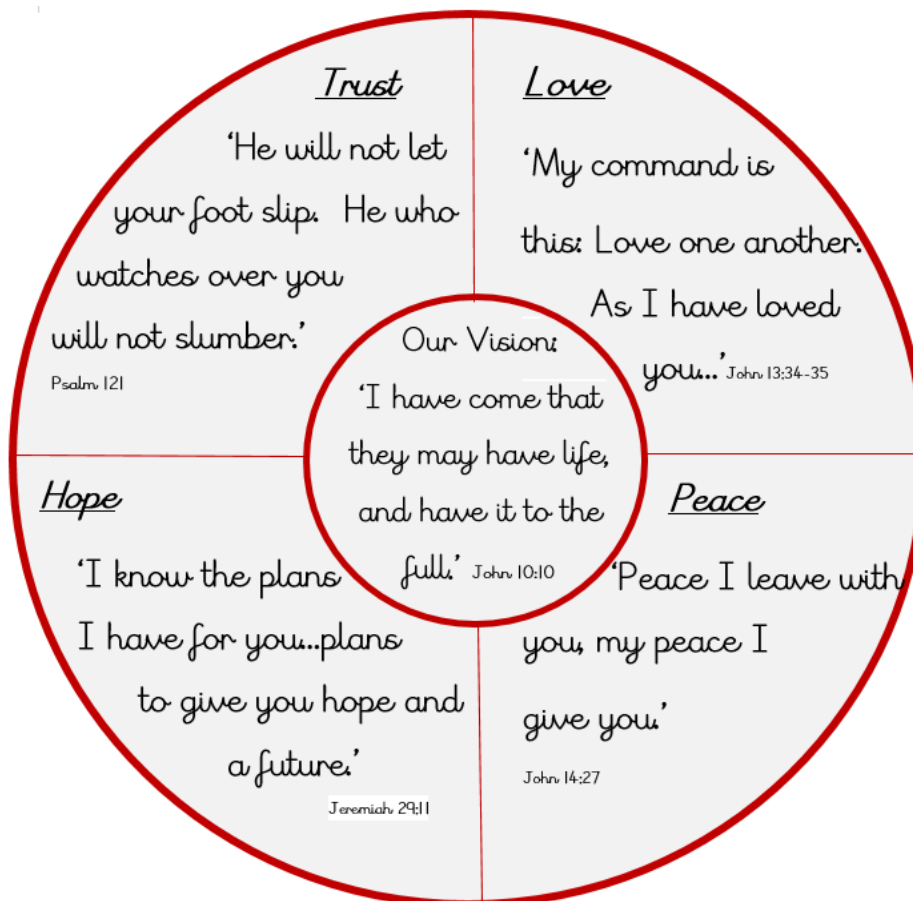
John 10:10 '...I have come that they may have life, and have it to the full.'

Maths Policy (2021-2022)

Vision

'I have come that they may have life, and have it to the full. John 10:10

Our vision is to develop flourishing, caring children, equipping them with the skills to reach their potential. We believe in a curriculum that enriches lives, ignites interests, and engages children in real-life experience, as global citizens with an inclusive respect for others, readying them for their future, to live life to the full.



Aims and Vision for Mathematics

At Dawley CE Primary Academy, we want all children to develop into confident and competent mathematical thinkers and to be able to apply their mathematical knowledge in a range of challenging and stimulating situations. Our aim is that all children develop a positive and confident attitude to mathematics, enjoy mathematics and reach their full potential as mathematicians.

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

- Become fluent in the fundamentals of mathematics, including the varied and regular practice of increasingly complex problems over time.
- Reason mathematically by following a line of enquiry, understanding relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can 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 in seeking solutions.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between mathematical ideas. The programmes of study are, by necessity, organised into distinct areas, but pupils will make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They will 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 will always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems to develop mastery before any acceleration through new content. Those who are not sufficiently fluent with earlier material will consolidate their understanding, including additional practice, before moving on.

At Dawley CE Primary Academy, our objectives in the teaching of mathematics are:

- to promote enjoyment of learning through practical activity, exploration and discussion;
- to develop confidence and competence with numbers and the number system through rapid recall;
- to develop their conceptual understanding in order to solve problems through decision-making and reasoning in a range of contexts;
- to develop a practical understanding of the ways in which information is gathered and presented;
- to help children understand the importance of mathematics in everyday life.

Context

Mathematics teaches children how to make sense of the world around them through developing their ability to calculate, reason and solve problems. It is a core subject with a range of cross-curricular links but most often, is best taught discretely, using opportunities from other subjects to apply skills in different contexts.

Maths involves developing confidence and competence in number work; shape, space and measure; handling data and the application of these skills. We aim to support children by equipping them with a range of computational skills and the ability to solve problems in a variety of contexts. This is effected by using the Age and Stage Bands for Early Year's Outcomes for Mathematics in Foundation Stage, and the New Mathematics Programmes of Study (statutory from September 2014) to guide planning, teaching and assessment in Key Stages 1 and 2.

Leadership and Management

The subject leader's role is to empower colleagues to teach maths to a high standard and support staff in the following ways:

- By keeping up-to-date on current issues; disseminating relevant information and providing training for staff members (either directly or through other professionals);
- Leading by example / modelling lessons or styles of teaching;
- Having a knowledge of the quality of mathematics provision across the school;
- Identifying and acting on development needs of staff members;
- Monitoring expectations, provision and attainment across the school and providing feedback to develop practice further in order to raise standards;
- Providing necessary equipment and maintaining it to a high standard.

National Curriculum

The Early Years Foundation Stage Curriculum feeds into the new National Curriculum and the revised Primary Framework for mathematics. It is good practice to make use of cross curricular links to enable children to use their learning in a real life context. Therefore pupils should be given plenty of opportunities within sessions to use and apply the mathematical skills and concepts they have learned. The school's calculation policy (created alongside this policy) is designed to provide continuity throughout the school with all four operations, which in turn will facilitate measured progress for children in school. In the Foundation Stage we plan mathematical activities that address the learning objectives for mathematics as set out in the Age and Stage Bands for Early Year's Outcomes for Mathematics in Foundation Stage. We provide opportunities for children to develop their understanding of number, measurement, pattern, shape and space through a variety of activities, both child and teacher initiated, that allow them to enjoy, explore, practise and talk confidently about mathematics.

Implementation/Planning

Our mathematics curriculum is delivered using the new Foundation stage guidelines and the new Mathematics Programmes of Study as a tool to ensure appropriate pace, progression and coverage of the subject. This coverage is reviewed continually by class teachers and planning is adjusted accordingly to ensure appropriate coverage of all mathematical strands.

Planning is based upon the year group requirements with an aim on teaching skills so that children have a deep understanding and mastery of concepts. These plans are adapted to meet the needs of specific groups of children and to address areas identified by the school as needing development. Opportunities for differentiation are also identified at this stage.

Once they understand a mathematical concept, they are then required to solve problems and carry out investigations to deepen their conceptual understanding while also becoming more sophisticated in their Mathematical approach.

Cross Curricular Links

Mathematics can contribute towards many subjects within the primary curriculum and opportunities are sought to draw mathematical experience out of a wide range of activities. This provides opportunities for children to begin to use and apply their mathematics in real contexts.

Computing

ICT and computing can enhance the teaching of mathematics significantly. It has ways of impacting on learning that are not possible with conventional methods. Teachers can use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. A range of software and hardware (ipads with numerous apps, laptops and desktops) is available to support work across the school.

Assessment

Assessment in maths is still developing alongside the removal of national Curriculum levels and with the introduction of the language of Entering, Developing and Secure.

All children are currently assessed every half term using both summative and formative assessments. Individual pupil progress is monitored using the DC Pro program (online tracking system) and analysed during termly pupil progress meetings with the senior leadership team. Pupils are assessed against the previous year's SATs papers and the White Rose Hub termly assessments.

Teacher assessment based on class work is made regularly and is used to inform planning.

As a result of teacher assessment, relevant support can then be put in place if required and this is detailed on class provision/intervention timetables.

Parental Involvement

Parents are informed about their children's learning through a termly curriculum overview which can be viewed on the school website.

A parent booklet is available which demonstrates the variety of calculation methods which are covered at various phases across the year groups. Parents are always welcome to come in and discuss their child's progress with the class teacher during parent consultations or by prior arrangement.

Parents are kept up-to-date with developments through the school website and twitter feed.

Monitoring

The monitoring of this subject takes place through lesson observations from SLT and the Maths Coordinators. The Maths Coordinators also scrutinise books; monitor data; track progress, and talk to teachers and children about their teaching and learning.