



### MATHS POLICY

At Fulwell Infant School Academy mathematics is set within a broad, integrated curriculum. We aim to ensure that every child has access to the intentions set out in our curriculum intent document.

### INTENT

We embrace the 'mastery approach' to teaching mathematics. Our teachers ensure that mathematical skills are taught every day following the Primary Stars Scheme, developing children's fluency, reasoning and understanding. Children are introduced to concepts through a concrete, pictorial and abstract approach, which deepens learning. Our scheme provides a practical, investigative approach through substantial work on number, shape, measurements, time and money. The academy is well resourced in practical apparatus. Children are assessed on a regular basis to make sure the learning they undertake is suitable for their ability, with sufficient challenge to ensure progression. Our children will understand the importance of mathematics in everyday life and are encouraged to be confident in numeracy, applying the skills that they learn to problem solving. The breadth of challenges they experience gives them a wide range of mathematical knowledge and understanding. Ultimately, Mathematics is a tool for everyday life. It is a whole network of concepts and relationships, which provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems. It also provides the materials and means for creating new imaginative worlds to explore.

## **IMPLEMENTATION**

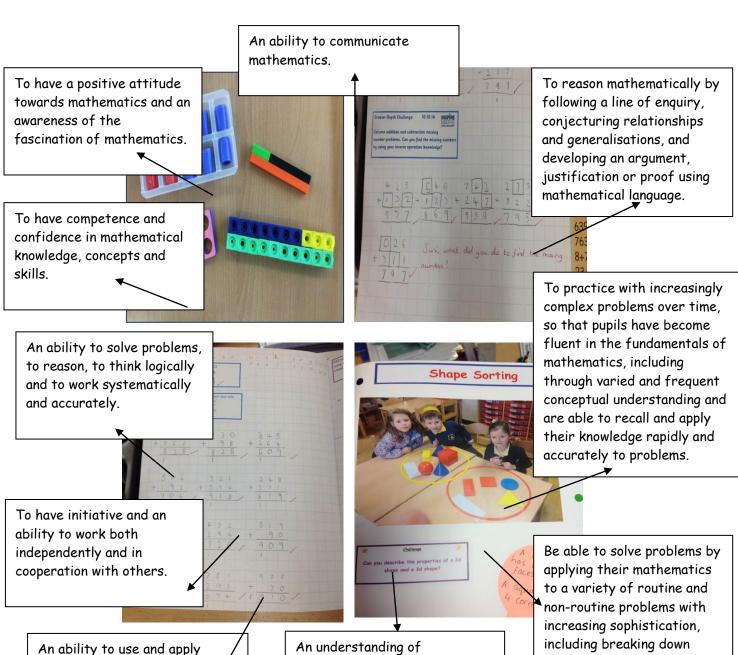
- Motivate and stimulate interest and excitement for learning
- Ensure children discuss and take an active part in their learning
- Address the literacy and numeracy needs of each individual and make full use
  of ICT in the provision of learning opportunities for all learners with
  additional educational needs, setting appropriate yet challenging targets for
  improvement.
- Provide a broad and balanced curriculum using a thematic approach where curriculum areas are linked. Primary Stars Maths allows children to be exposed to many reading opportunities, alongside a writing focus of creating their own word problems and answering questions with a sentence.
- Provide opportunities that extend and enrich learning to include visits or visitors, where appropriate
- Ensure children embed key concepts in their long-term memory.
- Ensure that we use a range of classroom practice and teaching style appropriate to the needs of the learners in the group.
- Use the full range of differentiation (scaffold and challenge) strategies to
  ensure that all learners have the opportunity to access the curriculum and
  make progress and adopt teaching methods that reflect the differing
  learning styles of the individuals in the group.
- Monitor progress against targets and share the information with the learner and parents
- Seek to overcome potential barriers to effective inclusion.





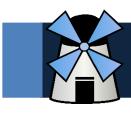
- Ensure display in the learning environment celebrates the achievement of our children and scaffolds their learning to extend their achievement further.
- Provide home learning activities which extend and support learning.

## The essential characteristics of a Mathematician at Fulwell Infants



mathematics across the curriculum and in real life. mathematics through a process of enquiry and experiment.

problems into a series of simpler steps and persevering in seeking solutions.





#### TIME ALLOCATION

Throughout the school year we aim to seek a balance between all subject areas. Maths will be taught every day in all year groups.

### Mastering Number Programme

Mastering Number is a vital part of learning to ensure concepts are embedded in a child's long term memory. They are in addition to the daily Mathematics lesson and take place for 15-20 minutes each day. Their purpose is to provide regular opportunities for our children to practise and consolidate skills of arithmetic and develop mental fluency. All children are expected to participate using full stem sentence responses in order to develop their understanding of mathematical language and support reasoning. Mastering Number also allow opportunities for teachers to act immediately upon their formative assessment. These sessions enable either the class teacher or an additional adult to provide prompt and timely 'corrective teaching' for those children not yet secure with key concepts. Subitising is also a key focus in Mastering Number, we want the children to recognise pattern on sight and allow them to embed their early counting skills to ensure trickier learning later on in school is accessed quickly and is familiar.

### ORACY LESSON STRUCTURE AND MEMORY JOGGERS

Children now complete memory joggers that are tailored to their specific mathematical learning. They will complete a daily task that asks them to remember what they have learned yesterday, last week, last year and also in a different domain. This will ensure that the children have these concepts in their long term memory and allow time for extra practice.

Our focus on oracy will enable the children to become confident speakers, have the ability to debate and reason around their maths responses and answers and partner discussion and collaboration will allow this.

### FINANCIAL EDUCATION PLANNING FRAMEWORK

Half termly lessons will be taught to progressively develop children's understanding of money and how it has developed over time. Discuss concepts such as the history of money, being within your budget and creating a spending diary.

### BEHAVIOUR and ATTITUDES

We believe that children in Fulwell Infants deserve the right to have access to a comprehensive curriculum that meets their needs. We promote positive attitudes to learning throughout maths with a 'can do' attitude. Children focus on taking ownership of their learning and there is a focal point on problem solving and children working both independently and as a team to solve mathematics issues together, discussing how they arrived to an answer using appropriate vocabulary. Children will understand that mathematics plays an important role in later life, especially for SEND children with the reflections of 'Preparation for adulthood'. We have linked these themes throughout maths to highlight learning opportunities for the wider curriculum related to maths.





Children are resilient learners in maths and understand that it is a skill for life in the long term.

#### CURRICULUM PLANNING FOR SUBJECT

Long term plans map out the themes covered in each term for each year group in key stage 1. The curriculum leader for Mathematics will liaise with all curriculum leaders to ensure that learning builds upon learning.

### Medium term plans

- A mapping overview of content, which are constantly being reviewed and amended to
  ensure relevance for the cohort of children, give details of each unit of work for
  each term. They ensure an appropriate balance and distribution of work across each
  term.
- Key skills development to ensure children progress at a level according to their ability. They identify learning objectives and outcomes for each theme.

Short-term plans are completed by staff for each block of learning.

In Year 1 and 2 these are reflected by staff printing their weekly detailed PowerPoint with step by step instructions for each part of the lesson.

These include:

- The specific learning objectives and detail how the lessons are to be taught.
- Activities to engage the children and to lead their development through active participation.

We plan the activities in Mathematics so that they build upon the prior learning of the children. We give children of all abilities the opportunity to develop their skills, knowledge and understanding and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

Planning is recorded in class computer files which are accessible to all staff. In this way subject/curriculum leaders can monitor and develop learning within their curriculum area. Scrutinies of planning and work are carried out by subject leader/leadership with feedback given to ensure children access the full curriculum. We will ensure that we plan to meet the needs of the following clearly identifiable groups:

- · Gifted and talented learners
- · Learners from different ethnic groups
- · Learners for whom English is an Additional Language
- · Learners with Special Needs and disabilities
- · Learners with emotional, behavioural or social needs
- · Learners who are at risk of disaffection or exclusion
- · Learners who are "Looked After" in public care
- · Learners in receipt of Pupil Premium.





### SPIRITUAL, MORAL, SOCIAL AND CULTURAL DEVELOPMENT

Learning through Maths contributes to the children's spiritual development in many ways. We provide children with the opportunity to discuss moral questions, what is right and wrong. Children learn how society has changed and develop skills to become good citizens. They study their own rich cultural heritage and developing an understanding of how this culture is enriched by the multi-cultural British society of today, based on British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs.

### PERSONAL DEVELOPMENT

Here at Fulwell we aim for all children to be confident, resilient learners within our caring and respectful classrooms that have a feel of a community. The current Mathematics curriculum is structured for children to feel a sense of achievement and ownership of their learning. We strive for all children to have an attitude that promotes self-confidence and self-esteem within their working environment. Throughout each subject we incorporate the views of British Values, which teach children to have moral values, tolerance and respect. Within Mathematics we encourage peers to learn and engage, giving positive praise when they achieve. This is crucial to all children's emotional well-being and promotes a safe learning environment for all children.

### **ENRICHMENT**

Mathematics is a whole school focus point throughout the year. At Fulwell we enjoy being keen Mathematicians together. To ensure progression in key skills, reasoning and problem solving, all children are exposed to problem solving, EYFS being whole class and KS1 explicitly taught. The children complete the same problem at different levels of challenge and see their work displayed within school. We believe this gives children ownership of their learning and the ability to discuss their knowledge with peers, visitors and staff.

#### **RESOURCES**

We have sufficient resources available in school to meet the needs of the Academy Curriculum, including Primary Stars Maths. This allows resources to be matched to any developments in the curriculum, through the teaching of knowledge, skills and understanding.





#### **ASSESSMENT**

Formative assessment is used daily to then given children the opportunity to read additional support if needed. At the end of each teaching block, children complete an assessment where the results are placed into an electronic grid which categorises them as greater depth, expected or working towards. Where the children are working towards, the next lesson will be a 'pause' where they are able to go over key skills with an adult and resources to secure understanding. Children who are expected and greater depth will complete domain specific challenges, to enable them to further explore the maths topic.

Effective tools used by our teaching staff include:

- Sharing explicit learning intentions and success criteria
- Quality questioning
- Self- assessment and peer assessment against learning intentions and success criteria
- Quality marking to identify areas where the success criteria has been met and areas that need to be improved

Summative assessment involves spending time at the end of each unit or at the end of year assessing children's skills and understanding. The National Baseline (2019) will provide a baseline assessment level for each child in EYFS. Class teachers assess children against key learning, identified on the termly foundation plan. This identifies children needing additional support and those who are working at a mastery level.

Assessment against the National Curriculum allows us to consider each child's attainment and progress against age related expectations. This ensures that our teaching is matched to the child's needs. Intervention is provided, as set out in the renewed SEND code of Practice (2014), through quality first teaching and where a child is in receipt of a statement of Special Educational Needs or Education Health Care (EHC) plan a specific education plan will be in place linked to specific targets. The targets may include, as appropriate, specific targets relating to the Mathematics. SATS are still undertaken at the end of Year 2, as an optional use of assessment and confirmation of teacher's judgement.

### **INCLUSION**

The governors and staff of the academy are committed to providing an inclusive range of high quality learning opportunities for everyone involved with the school and the Community. We will ensure that everyone has an equal opportunity to access the full range of provision available in Mathematics and will actively seek to remove barriers to learning and participation. The teaching and learning, achievements, attitudes and wellbeing of every child are important.





#### HEALTH AND SAFETY

The teacher will be responsible for planned activities within Mathematics that are appropriately risk assessed to comply with health and safety requirements. They are also responsible for the health and safety of themselves, classroom assistants, visitors and pupils within their class.

### **IMPACT**

Leadership will consider first hand evidence of how children are doing in each subject. Quality first teaching in response to the planned curriculum will provide evidence and information to answer the key questions listed below:

Do all our children achieve as much as they can?
Are there differences in the achievement of different groups of children?
What are we doing for those children who we know are not achieving their potential?
Are our actions effective?

Is the curriculum promoting outstanding learning?

### SUBJECT LEADER

The Subject Leader has the responsibility for overseeing and resourcing the subject. There is an annual budget for resourcing Mathematics so that effective teaching can take place and the school's policy can be maintained. This may vary from year to year according to curricular priority and resources available. (See role of subject leader document)

## MONITORING AND REVIEW

The leadership team (including the subject leader) is responsible for monitoring planning and the standard of children's work. Monitoring activities include planning and work scrutinies. This involves interviewing children across key stages. Children are asked focused questions about their learning with their work. This enables curriculum leaders to monitor progress within their subject. The curriculum leader supports colleagues in the teaching of Mathematics, by giving them information about current developments in the subject and by providing a strategic lead and direction for the curriculum area in the school. Curriculum leaders meet with governors, as appropriate, to discuss current developments in their subject. Key questions are discussed during these meetings.

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