



ST. JAMES' CE FIRST SCHOOL

MATHEMATICS POLICY

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St. James' CE First School, Alderholt

Mathematics Policy

**We are all God's family,
And we will try our best,
To live and love and learn with others,
As Jesus taught us.**

Article 28

All Children have the right to a Primary Education, which should be free.

Article 29

Education should develop each child's personality and talents to the full.

St. James' is a Rights Respecting School and will ensure no child or adult regardless of gender, race, religion, ability or disability will be discriminated against.

Aims and objectives

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics.

The aims of mathematics are:

- To develop the ability to apply knowledge to solve problems in a range of contexts;
- To be confident with the processes, concepts, skills and attitude needed to solve those problems.
- To promote positive attitudes, enjoyment and enthusiasm for learning through practical activity, exploration and discussion;
- To develop perseverance, enquiry, justification and ability to prove thinking.
- To promote confidence and fluency with numbers and the number system;
- To develop a practical understanding of the ways in which information is gathered and presented;
- To explore features of shape and space, and develop measuring skills in a range of contexts;
- To recognise the importance of mathematics in everyday life.

Teaching and learning style

Maths lessons at St James' follows the Inspire Maths Scheme of work and uses the Concrete-Pictorial-Abstract approach as laid out in the Teachers Guides for each year group.

- i) Teachers will begin each lesson with a short mental activity or warm-up
- ii) Teachers are guided by the Teaching Sequences for each unit of work in the Teachers Guides.
- iii) Children work in mixed ability pairs, having a Talk Partner/ Maths Mate that they work with.
- iv) Each class has a maths learning wall where vocabulary, resources and questions relevant for each unit are displayed and available. Children are expected to use these as part of their learning.
- v) The main objectives for each unit of learning should also be displayed on the learning wall.

In addition to the maths lesson, there will be some planned Maths Mission sessions across the week. These are usually around fifteen minutes and may be teacher/ TA guided or independent tasks. They are an opportunity for children to apply their learning in different contexts. They give the teacher an opportunity to assess who is demonstrating greater depth or gives time to consolidate concepts not yet fully understood. Children have Maths Journals to record any learning beyond that in their Inspire Practise Books.

Any objectives that are not met through using the Inspire Maths scheme will be planned for by teachers to ensure that full curriculum coverage is achieved. This could be a standalone maths lesson (coming off Inspire for a set period of time); during maths mission sessions or through utilising other areas of the curriculum such as science. In EYFS, making use of continuous provision allows concepts to be consolidated and embedded.

Some areas of the maths curriculum, such as telling the time, may be considered longitudinal learning and will be drip fed throughout the year rather than teaching a unit on it in bulk.

Mathematics curriculum planning

Teachers plan using the Maths Planning format for the school. They will use the Teachers Guides to support them in planning each Unit of learning. Objectives are from School Pupil Tracker Online and need to be written using the Child Speak language. GD objectives need to be considered and should also be taken from SPTO. Inspire Maths has higher expectations than the National Curriculum therefore teachers should use the Curriculum Correlation Charts to ensure they have correctly covered the relevant curriculum for their year group. Plans will include vocabulary, questions and any personalised provision required.

Maths Missions are planned on the same document. Opportunities are given for children to apply their learning, demonstrate greater depth or consolidate concepts. Learning objective, activity and assessment notes are provided for each session.

Planning needs to be sent to the Headteacher ready for the week ahead.

Plans are kept on two clipboards within each class. One for the teacher and one for the class teaching assistant. Plans will then be filed at the end of each week in the class Planning Folder. Teachers may make any evaluations or annotations they feel necessary.

The Foundation Stage

The mathematical aspects of the children's learning are related to the objectives set out in the Early Years Foundation Stage document, these underpin the curriculum planning for children aged three to five.

Teachers will provide a range of opportunities and activities for children to develop their understanding of number, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

Numicon equipment is used and explored extensively to develop children's deep understanding of the number system and how it works.

Mathematical learning will also follow children's lines of enquiry and interest.

Regular assessments and observations are made by practitioners, parents and carers. These are added to each child's Tapestry Learning Journal and are used to inform the next steps of their learning.

Inspire maths will begin to be taught in the summer term when children are able to access and understand the content. Discussions between the SLT and class teacher will determine this.

Contribution of mathematics to teaching in other curriculum areas

We recognise that to be confident mathematicians children need to be able to make links across different subject areas. Many excellent links can be made for instance within science, collecting & analysing data, English through understanding, reading and writing vocabulary, Computing, as well as shape and pattern in art, measurement in Design and Technology. Links will be maximised at all opportunities to embed and consolidate concepts.

Teaching mathematics to children with special educational needs

At St. James' we teach mathematics to all children, whatever their ability. Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our mathematics teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum using School Pupil Tracker Online, allows us to consider each child's attainment and progress against expected levels.

When progress falls significantly outside the expected age range, the child may have special educational needs. This is judged as the child not being able to successfully access, albeit with support, the curriculum for their own year group. As a consequence, the child will be provided with SMART targets, tailored to their needs to ensure maximum progress is made for them. Interventions may be offered in and out of class.

Assessment and recording

Assessments will be made during lessons and as part of teachers marking. This will then inform planning and whether children require some intervention to secure understanding of concepts. The need for intervention of individuals or groups remains fluid and depends upon their understanding of the individual units. Where necessary, teachers may decide that a child would benefit from pre-teaching a concept. This could be to boost a child's confidence in a particular area of learning and result in better progress and understanding. Any extra support or intervention will be done in children's existing Maths Journals.

At the start of each unit teachers will produce assessment sheets, generated from SPTO. These will then be used as part of the lesson and in marking to assess children's progress.

Teachers use the information gathered from the assessment sheets to update the data for their class on SPTO. This is then 'auto-filled' each term to assess children's level and progress through the year. Tracking Meetings are held half termly with teachers and senior leaders to discuss and monitor standards of all pupils looking at data, books and the broader classroom picture.

For children who are not making required progress or staying 'on-track', provision will be made for intervention within class to ensure they fulfil their potential.

HAT moderations through the year and year 4 moderations with Cranborne middle School allow judgements to be ratified and secured.

GL testing at years 3 and 4 will support teacher judgements being made at the end of the year and form the baseline for the following year.

SATs data at year 2 will support teacher judgements being made at the end of the year and form the baseline for the following year.

EYFS baseline will be ratified by all HAT EYFS staff, including the phase leader. The phase leader will support teacher judgements made throughout the year as required.

Resources

As part of the Concrete-Pictorial-Abstract model of learning that underpins the critical thinking and problem solving approach behind Inspire Maths, children need to readily have access to a range of resources.

Each class throughout the school have trays of resources on tables available for pupils to use freely. A list of suggested resources for trays is attached.

Monitoring and review

Monitoring of the standards of children's work and of the quality of teaching in mathematics maybe carried out by the Headteacher, senior leaders and maths leader. This is through book scrutiny, learning walks, observations and talking to pupils. Monitoring also takes place by all staff moderating books during staff meetings and also phase meetings within the Academy.

The work of the mathematics subject leader also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school.

Agreed and Adopted by St. James' Governing Body: 17th July 2018
Next Review Date: July 2019