

ST STEPHEN'S JUNIOR SCHOOL**WHOLE SCHOOL MATHS POLICY****Introduction**

Mathematics is important in everyday life. It is integral to all aspects of life and with this in mind we endeavour to ensure that children develop a positive and enthusiastic attitude towards Mathematics that will stay with them.

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. National Curriculum 2014

Rationale

All school policies form a corporate, public and accountable statement of intent. As a primary school it is important to create an agreed whole school approach of which all staff, children, parents, governors and other agencies have a clear understanding. This policy is a formal statement of intent for Mathematics. It is important that a positive attitude towards Mathematics is encouraged amongst all our pupils in order to foster self confidence and a sense of achievement.

Aims

The school's aim is to:-

- Provide all pupils with a Mathematics curriculum that will produce pupils who are literate, creative, independent, inquisitive, enquiring and confident.
- Provide a stimulating environment and adequate resources so that pupils can develop their mathematical skills to their full potential.

The school's aim is for all pupils to have equality of opportunity in order to:-

- Develop a sound understanding of basic mathematical concepts through practical and investigational work.
- Acquire appropriate and necessary mathematical skills and to apply them confidently and accurately.
- Acquire and develop enjoyment and enthusiasm for Mathematics, be successful and have a positive attitude to the subject.
- Be able to demonstrate their skills and knowledge and talk about their work using appropriate mathematical language.
- Develop thinking skills and logically apply their mathematical knowledge to solve problems.
- Use Mathematics as part of the everyday life in school and at home.

Teaching and Planning

Planning is linked to the Abacus Evolve scheme of work, which provides a map of the curriculum to ensure that all topic areas are covered. Teachers then use teacher assessments in order to provide the correct level of challenge for pupils in their ability set.

Teachers follow the school Calculations Guidance (Appendix 1) to ensure that there is consistency and progression of methods of calculation throughout the school.

The school encourages practical activities in Mathematics on a regular basis, with each class teacher responsible for providing investigational activities in the classroom.

Throughout the week there will be a variety of approaches to maintain the enthusiasm and interest of pupils through focused learning opportunities. Lessons will have clear learning objectives that are communicated to the pupils and differentiated tasks suited to individual children's needs and abilities.

Pupils will have targets based on their individual needs and these will be recorded and evaluated by the pupils with their teacher.

Expectations should be made clear to the children, with links made to previous learning where necessary. A good pace of work should be maintained and all children should know how to record their work. Jottings should be modelled and encouraged to help the children reason and calculate. Lessons may include group, paired or individual work, or guided maths sessions with the teacher.

Assessment

Assessments will be made on two levels:

1. **Short term** assessment will be by discussion with pupils, observation of their progress within the classroom setting and by the marking of work, adding constructive, informative comments where applicable. Also through informal testing of mental recall and calculation, including the Master of Multiplication.
2. **Longer Term** assessment will be carried out by teachers assessing children against the end of year expectations. This is ongoing throughout the year and provides the basis for target setting and informs lesson planning. The teachers have the option of using the Abacus Evolve end of term assessments to aid their judgements. Gap analysis should be completed and used to inform planning at each of these stages.

Differentiation

Teachers will endeavour to adhere to the inclusion requirements set out in the 2014 national curriculum:

- Setting suitable challenges.
- Responding to pupils' needs and overcoming potential barriers for individuals and groups of pupils.

At St Stephen's pupils are set by mathematical ability. There are four sets per year group with all sets following the same curriculum map to ensure that all groups cover the required topics. Any movement of pupils between ability sets should be done in consultation with the head of year.

During lessons pupils work on tasks linked to the learning objective of the lesson. Teaching is organised to enable pupils of all abilities access to the learning.

Intervention materials are available for use with small groups of children and these include:

- Overcoming Barriers
- Springboard
- Wave 3

The most able mathematicians are challenged with tasks and materials to broaden and deepen their understanding of topics while working on the same learning objective as their peers. This may be done by providing more demanding questions and investigations, often with an open ended approach. From time to time they may also be accelerating the pace of their learning by working towards objectives chosen from the relevant progression strand from a later year.

Cross curricular links

Making links between areas of learning deepens children's understanding by providing opportunities to reinforce and enhance learning. There should be planned opportunities for linking Mathematics to other subjects. For example:

- Science – reading scales, data handling and drawing graphs and charts
- PE – measuring jumps, timing races, using reflective symmetry in movement
- History – tally chart of census material
- Geography – using the points of a compass and directional language
- Music – counting the beats and rhythms in music
- ICT – using mathematical games and ITPs

Learning is enhanced by:

- Giving further opportunities to practise taught skills through purposeful use in other curriculum areas
- Providing real experiences, context and meaning to the development of core mathematical skills
- Assisting memory through providing opportunities for children to use skills in a different context
- Offering opportunities for learners to look for patterns and relationships and develop problem solving and reasoning skills.

Resources

Each year group has practical resources kept in a central area and available to all maths sets.. There is a wide variety of teachers Maths resources and work books for children in the staff room. Abacus books for a year group are stored in the classrooms.

An annual overview of resource needs will be undertaken by the subject coordinator.

Display

Each classroom should have a mathematical display with interactive questions or activities. Displays should be informative, celebrate children's work, stimulate further mathematical learning and raise questions. Tables, charts and a number line should be on display in each room.

Role of the Maths Coordinator

The maths coordinator is responsible for monitoring and developing mathematics teaching across the school. Monitoring will involve planning and book scrutiny as well as classroom observations. NQTs and teachers who are new to the school will be given guidance and advice to support their teaching of mathematics.

Review

This policy will be reviewed annually by the mathematics coordinator, following discussions with the Head teacher and other colleagues as part of the school's development planning. Any amendments will be presented to the whole staff and to the appropriate committee of the Governing Body before implementation.

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