

## All Saints School Maths Policy

Mathematics is concerned with viewing and making sense of the world. It is used to analyse and communicate ideas and information; to solve problems requiring judgement and creativity.

Mathematics is a core subject in the National Curriculum. The fundamental skills, knowledge and concepts of the subject are set out in "Mathematics in the National Curriculum" where they are categorised into attainment targets.

Using an Applying Mathematics  
Number and Algebra  
Space, Shape and Measure  
Handling Data (Key Stage 2 only)

These are broken down into strands,

The seven strands are as follows.

- Using and applying mathematics
- Counting and understanding number
- Knowing and using number facts
- Calculating
- Understanding shape
- Measuring
- Handling data

### Aims

ALL SAINTS AIMS IN TEACHING MATHEMATICS are that children will develop:

\* A positive attitude to all areas of maths by presenting it as an enjoyable, interesting and attractive subject.

\* A positive attitude towards mathematics through a variety of practical, mental and written tasks.

- \* An ability to think clearly and logically.
- \* An ability to work both independently and collaboratively. of enquiry and experimentation.
- \* An appreciation of pattern in mathematics and an ability to identify relationships.
- \* An awareness of the basic structure of mathematics, through an understanding of number and space.
- \* An appreciation of the creative potential of mathematics; persistence, through work that requires perseverance over a period of time.
- \* Mathematical knowledge and skills, alongside an ability for quick recall and application of basic facts.
- \* An awareness of the relevance of mathematics to the world beyond the classroom.

### Principles of Learning

Mathematics is important because:

- \* An understanding of mathematics and the ability to use it are vital in the world beyond the classroom.
- \* Children can gain satisfaction and a sense of achievement from the subject.
- \* It enables children to develop powers of logical thinking, numeracy and spatial awareness.
- \* It enables children to develop essential skills required for adult life and best life chances.

### Principles for the Teaching

A variety of approaches and methods, relevant to the children's needs and experiences, are used.

- \* Staff will model mathematical concepts and demonstrate written and informal strategies.
- \* Children will be taught new mathematical concepts and ideas and practice so they can apply new learning.
- \* Children will record their own work both formally and informally to support their thinking and learning.

- \* Children will participate in practical, investigative and problem solving activities to develop their ability to question, predict and apply learning.
- \* Mathematical displays should be stimulating and supportive.
- \* Resources should be readily available to support learning.
- \* Teachers and learning support practitioners are used to assist learning and support the monitoring of progress through day to day Afl techniques.

### We must ensure:

- a) All children have the same access to the numeracy curriculum regardless of gender, race, cultural and social background and special educational needs.
- b) Our attitudes are always positive and that we treat children equally.

### Equal Opportunities

As a staff we need to maintain awareness of and to provide for, equal opportunities for all our children. We need to take into account cultural backgrounds, gender and special educational needs both in our teaching, attitudes and the published materials we use with our children.

### Special Educational Needs

Children with special educational needs will have access to additional support in the form of resources, staffing and appropriately matched activities.

Weekly planning should be sufficiently differentiated to cover the needs of all learners.

Practical resources should be available all learners to support and / or challenge their thinking.

Specific skills for numeracy will be on the IEP (Individual Education Plan) and additional time needs to be available for the teaching of these skills, where appropriate.

It is important to note that a child who finds number difficult may not struggle in all areas of maths.

### PLANNING IN MATHEMATICS

This is a process in which all teachers are involved, and supported in.

The key principles of Assessment for learning should underpin the planning of numeracy to ensure that tasks are well matched to all learners and so that all learners can make expected progress.

- Commercial schemes can be used, if they provide the next stages of learning.
- Schemes of work show a progression of key skills and calculation methods are based on the Primary framework.
- Teachers should use published lesson plans as guides only, primarily, plans should include key questions, mathematical language, and strategies modelled by the teacher.
  - \* Planning should be a direct response to Afl techniques, such as observation of previous learning in class, and as a result of marking and feedback.
- Staff meetings are used to discuss the mathematics curriculum and ensure consistency of approach and standards.
  - \* Opportunities will be built in to look at learning in maths books, reflect on own practice, and share good practice with colleagues.

### Principles for Assessment

- FEEDBACK TO PUPILS is through regular marking of work, discussion of work, tests, and reviews of sections of work.  
[ See marking and feedback policy.]

- **FORMATIVE ASSESSMENT** is used to guide the progress of individual pupils in mathematics. It involves identifying each child's progress in each aspect of the subject, determining what each child has learned and what therefore should be the next stage of his/her learning.

Ongoing teacher assessment in the form of marking and feedback, AfL principles, looking at learning in books and curriculum trackers, will inform termly judgements on pupil progress. Teacher assessments such as these, will be used alongside formal tests in key stage two, to ensure that key skills are being applied and there is increased accuracy on data each term.

In year 2, children will sit tests at the end of Autumn term and Summer term.

Formative assessment is carried out both formally and informally by teachers in the course of their teaching.

Teacher assessment will be carried out years nursery, reception and year 1 for all three terms. For years 2, 3, 4, 5 for the end of Spring term.

- **FORMAL SUMMATIVE ASSESSMENT** is carried out at the end of each National Curriculum Key Stage (i.e. in years R, 2 and 6) through SATs tests through the use of tests for years 3,4 and 5 and the EYFS document for Reception.

Testing to be done for years 2, 3, 4, 5, 6 for the end of the Autumn term.

Testing to be done for year 6 for Easter.

Testing to be done for years 2,3,4,5, during the summer term.

Year 6 SATS in may [ Summer 1 ]

## Principles for Recording and Reporting

- RECORDS OF PROGRESS in mathematics are kept for each child, through target sheets, mental maths grids, SATS results - EJITS, and tracker grids.
- REPORTING TO PARENTS is done at parents' evenings and annually through a written report.

## Early Years Foundation Stage (EYFS)

Teachers support children in developing their understanding of problem solving, reasoning and numeracy in a broad range of contexts in which they can explore, enjoy, learn, practise and talk about their developing understanding. Teachers offer opportunities for these skills to be practised through adult led activities and child initiated activities, in order to give children confidence and competence in their use.

This Area of Learning and Development includes seeking patterns, making connections, recognising relationships, working with numbers, shapes, space and measures, and counting, sorting and matching. Children use their knowledge and skills in these areas to solve problems, generate new questions and make connections across other Areas of Learning and Development. Mathematical understanding will be developed through stories, songs, games and imaginative play.

## Principles for the Use of Resources

- CLASSROOM RESOURCES IN MATHEMATICS  
A basic set of resources, appropriate to the learners, should be kept in classrooms, and where appropriate, in table trays.

This may include number lines, show me boards with pens, number fans, digit cards and cubes.

- CENTRAL RESOURCES IN MATHEMATICS are the responsibility of the maths co-ordinator, and are clearly labelled in the mathematics resource area.
- INFORMATION TECHNOLOGY is a major resource which is used in mathematics. Programmes are available for use in classrooms and the computer suite. These resources are the responsibility of the ICT technician.

The interactive whiteboard [ IWB] can assist in drawing with accuracy to model concepts including shape, data handling and fraction work. Grid paper should be used on IWB where appropriate, when modelling number lines, hundred squares calculations or reinforcing methods including place value.

### Organisation of classes

Children are taught across the phase. There is an expectation that ability groups are created by the third week into the new school year, using a combination of test data, teacher assessment by their previous teacher and initial assessments within their new class. However, as a result of on going monitoring, it may be deemed appropriate to cater for a more able group than two parallel mixed ability groups.

Three ability groups are recommended as manageable although there may be smaller 'table' groupings within that. Children with special needs may well be working to an individual plan, and with additional support.

Due to the whole school staff structure, and as a priority in the school improvement plan, we are able to operate reduced class sizes.

### Time

All classes should have a daily mathematics lesson equivalent of 1 hour a day in key stage 2 or 50 - 60 minutes at Key Stage 1. Lessons are taught by the group teachers.

## Marking

Marking is done in accordance with the school marking and feedback policy.

Marking is done ideally with the child present, however if this is not possible, it should be done before the next session.

Good practice in maths is for children to be given time to complete any set corrections or gap tasks in order to make the next steps in learning.

## Monitoring and Evaluation

Monitoring and evaluation of Mathematics teaching and learning in the school is carried out by the mathematics co-ordinator and the Senior Management Team.

Monitoring is done for a purpose, and as a result of pupil progress conversations. This may include scrutiny of learning and planning, lesson observations, and learning walks.

## The Role of the Governors

There are members of the Governing Body linked with each phase.

School improvement developments are shared with the governing body, through committee meetings and Head teacher reports.

Governors are kept up to date at Governing Body meetings on any developments in numeracy.

## Role of subject leader

The subject leader will be responsible for standards of teaching and learning in mathematics through:-

- Pupil progress meetings and summaries.
- Provision of Numeracy (including intervention and support programmes)

Monitoring the standards of maths across the whole school and reporting back to the Head teacher, Senior management team and the Governors.

- The quality of the learning environment.

Facilitating interventions in conjunction with the SENCO (Special Educational Needs Coordinator) in measuring impact.

- Taking the lead in policy development.
- Auditing and supporting colleagues in their CPD (Continuing Professional Development)
- Responsibility for the Maths budget for purchasing and organising resources.
- Keeping up to date with Numeracy developments.

Curriculum design

Book trawls.

Planning trawls.

Data after each term analysis of maths.

Question level analysis report.

Pupil interviews about maths.