ST NICHOLAS SCHOOL

MATHEMATICS / NUMERACY POLICY

INTRODUCTION

A numerate person understands some of the ways mathematics can be used for communication and this requires the possession of two attributes;

- Being `at-ease` with all those aspects of mathematics that enable a person to cope with the practical demands of everyday life.
- The ability to understand information presented in mathematical terms.

Cockroft (1982)

RATIONALE

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.

Through their growing knowledge and understanding, pupils learn to appreciate the contribution made by many cultures to the development and application of mathematics.

AIMS

All pupils will have equality of opportunity regardless of age, gender, ethnicity or level of disability.

Using the Programmes of Study from the National Curriculum and the National Numeracy Strategy Framework for Teaching Mathematics it is our aim to;

Promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion

Develop mathematical skills and knowledge and quick recall of basic facts in line with NNS recommendations

Promote confidence and competence with numbers and the number system

Develop the ability to solve problems through decision-making and reasoning in a range of contexts

Develop a practical understanding of the ways in which information is gathered and presented

Explore features of shape and space, and develop measuring skills in a range of contexts

Develop an appreciation of the creative aspects of maths and awareness of its aesthetic appeal

Understand the importance of mathematics in everyday life.

THE CURRICULUM IN THE FOUNDATION STAGE

Pupils within the Foundation Stage are supported 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. They are provided with opportunities to practise and extend their skills in these areas and to gain confidence and competence in their use.

The pupils are encouraged to:

- Say and use number names in order in familiar contexts
- Count reliably up to ten everyday objects
- Recognise numerals 1 to 9
- Use developing mathematical ideas and methods to solve practical problems
- In practical activities and discussion, begin to use the vocabulary involved in adding and subtracting
- Use language such as ‘more’ or ‘less’ to compare two numbers
- Find one more or one less than a number from one to ten
- Begin to relate addition to combining two groups of objects and subtraction to ‘taking away’
- Use language such as ‘greater’, ‘smaller’, ‘heavier’ or ‘lighter’ to compare quantities
- Talk about, recognise and recreate simple patterns
- Use language such as ‘circle’ or ‘bigger’ to describe the shape and size of solids and flat shapes
- Use everyday words to describe position

THE CURRICULUM IN KEY STAGE 1

Pupils within Key Stage 1 are encouraged to develop their knowledge, skills and mathematical understanding through:

- Practical activity, exploration and discussion
- Using mathematical ideas in practical activities, then recording these using objects, pictures, diagrams, words, numbers and symbols
- Using mental images of numbers and their relationships to support the development of mental calculation strategies
- Estimating, drawing and measuring in a range of practical contexts
- Drawing inferences from data in practical activities
- Exploring and using a variety of resources and materials, including ICT
- Activities that encourage them to make connections between number work and other aspects of their work in mathematics

THE CURRICULUM IN KEY STAGE 2

Pupils within Key Stage 2 are encouraged to develop their knowledge, skills and mathematical understanding through activities that extend their understanding of the number system to include integers, fractions and decimals as appropriate Approximating and estimating more systematically in their work in mathematics Using patterns and relationships to explore simple algebraic ideas Applying their measuring skills in a range of contexts Drawing inferences from data in practical activities, and recognising the difference between meaningful and misleading representations of data__Exploring and using a variety of resources and materials, including ICT Activities in which pupils are encouraged to consider when the use of calculators is appropriate and then use them effectively Using mathematics in their work in other subjects.

THE CURRICULUM IN KEY STAGE 3

The pupils in Key Stage 3 are offered a range of opportunities that are integral to their learning and enhance their engagement with the concepts, processes and content of the subject. They are encouraged to:

- Develop confidence in an increasing range of methods and techniques
- Work on sequences of tasks that involve using the same mathematics in increasingly difficult or unfamiliar contexts, or increasingly demanding mathematics in similar contexts
- Work on open and closed tasks in a variety of real and abstract contexts that allow them to select the mathematics to use
- Work on problems that arise in other subjects and in contexts beyond the school
- Work on tasks that bring together different aspects of concepts, processes and mathematical content
- Work collaboratively as well as independently in a range of contexts
- Become familiar with a range of resources, including ICT, so that they can select appropriately.

THE CURRICULUM IN KEY STAGES 4 & 5

- The students within Key Stages 4 & 5 are taught in need/ability groupings
- The students in Group 1 work towards gaining qualifications in OCR Functional Skills Mathematics at Entry Levels 1, 2 & 3
- Functional Skills Maths gives students a practical grounding in how to apply mathematical skills to everyday situations, with a strong focus on explanation and problem solving rather than abstract concepts and recall
- Assessments reflect the belief that by, using real-life contexts, the students are encouraged to apply their mathematics skills in a variety of situations

THE ASSESSMENT PROCESS WITHIN FUNCTIONAL SKILLS MATHS AIMS TO:

- Provide accreditation of achievements of a range of mathematics skills in real-life settings so that learners can use subject skills in a functional way throughout life.
- Provide a flexible assessment structure that can be adapted to meet the needs of individual learners.
- Provide a progression route through to higher achievement of entry level.
- Focus assessment on the three interrelated process skills identified in the skills standards - Representing, Analysing and Interpreting.

The students in Groups 2 & 3 are working towards achieving success in OCR`s Life and Living Skills QCF (Foundation Learning) qualification. It is suitable for all students including those with profound and multiple learning disabilities, and contains units suitable for students working at different stages of the Entry 1 Achievement Continuum. These qualifications may also be used as a `stepping stone` towards Functional Skills qualifications at Entry Level and at Level 1 as appropriate. A range of qualification sizes is offered including Award, Certificate and Diploma.

ASSESSMENT AND RECORDING

Students within the Foundation Stage are assessed usingThe EYFS profile (Early Years Foundation Stage Profile) and this summarises each child's development and learning attainment at the end of the Early Years Foundation Stage.
Students within Key Stages 1, 2, 3 & 4 are assessed using Pupil Asset.
External assessment is introduced at Key Stage 4.

MONITORING AND REVIEW

This policy will be monitored on a yearly basis by the Curriculum Co-ordinator to keep up to date with any adjustments to statutory legislation or curriculum and any changes will go via the Governing Body when necessary.

EQUALITY, SAFEGUARDING AND EQUAL OPPORTUNITIES STATEMENT

St Nicholas School, in all policies and procedures, will promote equality of opportunity for students and staff from all social, cultural and economic backgrounds and ensure freedom from discrimination on the basis of membership of any group, including gender, sexual orientation, family circumstances, ethnic or national origin, disability (physical or mental), religious or political beliefs.

St Nicholas School aims to:

- Provide equal opportunity for all
- To foster good relations, and create effective partnership with all sections of the community
- To take no action which discriminates unlawfully in service delivery, commissioning and employment
- To provide an environment free from fear and discrimination, where diversity, respect and dignity are valued.

All aspects of Safeguarding will be embedded into the life of the school and be adhered to and be the responsibility of all staff.

LINKS TO OTHER POLICIES:

Teaching and Learning Policy Curriculum Policies Safeguarding Policy

TRACY BALDWIN REVISED TERM 1 2017 RATIFIED BY THE LCS COMMITTEE (NOVEMBER 2017)