



## MATHS POLICY:-

This policy supports our aim to assess and develop pupils' communication, ensuring all pupils are maximising their communicative potential, through communication supportive practice.

An effective learning environment is one which is communication-rich. Staff support pupils' development through a recognition of how communication underpins children's ability to learn and to build relationships. Utilising a Total Communication approach, staff know the appropriate combination of systems to support each pupil individually. Staff have regular communication training to ensure skills and knowledge are kept up to date.

This policy was adopted on:- 4<sup>th</sup> March 2010 \_\_\_\_\_ Date

Chair of Governing Body:- \_\_\_\_\_ Signature

\_\_\_\_\_ Date

Reviewed Summer Term 2016 \_\_\_\_\_ Date

To Review:- Summer Term 2019 \_\_\_\_\_ Date

THE FOREST SCHOOL  
POLICY FOR  
MATHEMATICS/NUMERACY

Revised:

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# CONTENTS

1. INTRODUCTION
2. RATIONALE
3. SCOPE
4. PRINCIPLES
5. AIMS
  - 5.1 *General*
  - 5.2 *Curriculum content*
6. PROVISION
  - 6.1 *Early Years*
  - 6.2 *Key Stage 1*
  - 6.3 *Key Stage 2*
  - 6.4 *Key Stage 3*
  - 6.5 *Key Stage 4*
7. ASSESSMENT
8. ROLE OF SUBJECT LEADER
9. ROLE OF MATHEMATICS TEACHER
10. EQUAL OPPORTUNITIES
11. PARENTAL/CARER INVOLVEMENT

# **POLICY FOR MATHEMATICS/NUMERACY**

## **1. INTRODUCTION**

Mathematics equips pupils with a powerful set of tools to understand and change the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways.

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 healthy and enthusiastic attitude towards mathematics.

The Forest School follows the National Strategy Framework (Primary and Secondary) for Mathematics which provides detailed guidance for the implementation of the National Curriculum for mathematics. We meet the statutory requirements of the new national curriculum 2014. This ensures continuity and progression of teaching. In early years the curriculum is guided by the Early Years Foundation Stage curriculum, which mirrors the reception Learning Objectives in the Primary Framework. Within Key Stage 4 pupils follow Entry Level/Functional Skills programmes of study, according to their level of ability.

This policy follows a whole school format and rationale.

## **2. RATIONALE**

All school policies form a corporate, public and accountable statement of intent. It is very important to create an agreed whole school approach of which staff, children, parents, carers, governors and other agencies have a clear understanding. This policy is the formal statement of intent for mathematics. It reflects the essential part that mathematics plays in the education of our pupils. 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. The policy also facilitates how we, as a school, meet the legal requirements of recent Education Acts and National Curriculum Requirements.

## **3. SCOPE**

This statement of policy relates to all pupils, staff, parents, carers and governors of The Forest School. The age range of pupils from 3 to 16 years must be acknowledged in the creation of policy and the development of the mathematics curriculum.

## **4. PRINCIPLES**

The principles of The Forest School for mathematics are:

- policy and provision are evaluated and reviewed regularly
- resources of time, people and equipment are planned, budgeted for and detailed when appropriate in the School Development Plan.

- the governing body of The Forest School discharges its statutory responsibility with regard to mathematics
- cross curricular links will be integrated where appropriate
- planning of mathematics ensures continuity and progression across all year groups and key stages

## **5. AIMS**

### **5.1 General**

Although relating specifically to mathematics our aims for the subject are also in line with the school's general aims.

- To promote learning through a wide variety of teaching and learning styles
- To develop investigational skills through practical tasks.
- To promote positive attitudes to the learning of mathematics.
- To maintain the enthusiasm and interest of pupils
- Lessons will have clear learning objectives that will be communicated to pupils.

### **5.2 Curriculum content**

#### **Using and Applying Mathematics**

Our pupils are encouraged to:

- use mathematics as an integral part of classroom activities
- try different approaches
- organise their work
- check their results
- represent their work using mathematical symbols and diagrams
- develop their prediction skills
- review their work and reasoning

#### **Mathematical Processes and Applications**

Pupils in Key Stage 3 and Key Stage 4 are encouraged to:

- problem solve in a variety of contexts
- develop reasoning, thinking and communication skills

#### **Numbers and the Number System**

Our pupils are encouraged to:

- develop their sense of the size of a number and where it fits into the number system
- develop reliable counting, reading, writing and ordering skills
- increase their knowledge of number facts such as number bonds, multiplication tables, doubles and halves

#### **Calculating**

Our pupils are encouraged to:

- develop their mental and written calculation skills, including calculator skills

- make sense of number problems, including real life problems, and recognise the operations needed to solve them
- discuss and explain their methods and reasoning, using correct mathematical terms
- develop strategies for checking whether their answers are reasonable

### **Algebra**

Pupils in Key Stage 3 and Key Stage 4 are encouraged to:

- recognise sequences of numbers
- use simple formulae, equations and identities
- investigate sequences, functions and graphs

### **Shape, Space and Measure**

Our pupils are encouraged to:

- develop spatial awareness and an understanding of the properties of 2D and 3D shapes
- suggest suitable units for measuring and make sensible estimates of measurements
- use standard units of time

### **Geometry and Measure**

Pupils in Key Stage 3 and Key Stage 4 are encouraged to:

- develop geometrical reasoning about lines, angles and shapes
- investigate transformations and coordinates

### **Handling Data**

Our pupils are encouraged to:

- collect and record data
- construct and diagrams and graphs
- extract and interpret information presented in different forms

## **6. PROVISION**

Pupils are provided with a variety of opportunities to develop and extend their mathematical skills in and across each phase of education.

Lessons follow the National Numeracy Strategy format with a mental/oral starter, a main teaching activity and a plenary session. The teaching of mathematics at The Forest School provides opportunities for:

- group work
- guided work
- paired work
- whole class teaching
- individual work

Pupils engage in:

- the development of mental strategies
- written methods
- practical work

- investigational work
- problem solving
- mathematical discussion
- consolidation of basic skills and number facts
- the appropriate use of ICT to support learning

At The Forest School we recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. We use the Mathematical Vocabulary Book and vocabulary from the relevant block and unit of the Framework when planning to help determine the appropriate terminology to use in our teaching. Children are encouraged to use this terminology in their verbal and written explanations.

Mathematics contributes to many subjects and it is important children are given opportunities to apply and use Mathematics across the curriculum and in real contexts.

Mathematics homework is given on a weekly basis to pupils in Key Stage 3 and 4. The tasks set are differentiated according to ability.

We endeavour at all times to set work that has high expectations for all, is challenging, motivating and encourages pupils to talk about what they have been doing. Parents/Carers are encouraged to comment on any help given to their child and any difficulties/challenges encountered (on the parent comment sheets attached to all homework.)

## **6.1 Early Years**

See Curriculum Guidance for the Early Years Foundation Stage.

## **6.2 Key Stage 1**

See Primary Framework Year 1 and Year 2 learning overviews and National Curriculum programmes of study.

## **6.3 Key Stage 2**

See Primary Framework Year 3 to Year 6 learning overviews and National Curriculum programmes of study.

## **6.4 Key Stage 3**

See Framework for teaching mathematics: Years 7,8 and 9

## **6.5 Key Stage 4**

See Entry Level/Functional Skills programmes of study.

## **7. ASSESSMENT**

Assessment is regarded as an integral part of teaching and learning and is a continuous process. Within the Primary Department, it is the responsibility of the

class teacher to assess pupils in their class or group. Within the Secondary Department, it is the responsibility of the subject teacher to assess all pupils within their mathematics group.

In our school we continually assess our pupils and record their progress. We see assessment for learning as an integral part of the teaching process and strive to make our assessment purposeful, allowing us to match the appropriate level of work to the needs of the pupils, thus benefiting the pupils and ensuring progress. Assessment of progress at key points in the school year is carried out so that we can check pupils' progress and adjust teaching and groupings accordingly.

Information for assessment will be gathered in various ways: by talking to the children, observing their work, marking their work, etc. Teachers will use these assessments to plan further work.

- B Squared connecting steps are used throughout the school
- Pupils are assessed annually against P scales and level descriptors, and a summative statement forms part of the annual review report to parents
- Assessing Pupil Progress (APP) is used to support the identification of National Curriculum levels.
- Medium term planning assessments are stored on the server
- Data analysis is carried out by the senior leadership team with feedback to staff
- Lesson observations, both informally and as part of performance management directly assess teaching and learning within mathematics
- Teacher assessments are recorded twice a year and kept on 'assessments' on the server
- Children in the primary department complete the Year 6 SATs test if working above Level 2
- Assessment is made at the end of Key Stage 3 using classroom based assessment tests from the QCA website or through teacher assessment
- End of Early Years Foundation Stage, Key Stage 1 and 2 reports are compiled each year
- Assessment at the end of Key Stage 4 is by teacher assessment and formal examinations (Entry Level Certificate/Functional skills certification)
- Internal moderation of pupils' work takes place twice a year.
- External moderation of a sample of pupils' work takes place on an annual basis with schools who have a similar cohort of pupils (eg Mowbray school, Bedale)

## **8. ROLE OF SUBJECT LEADER**

The mathematics subject leader is responsible for co-ordinating mathematics through the school. This includes:

- ensuring continuity and progression from year group to year group
- providing all members of staff with guidelines and a scheme of work to show how aims are to be achieved and how the variety of all aspects of mathematics is to be taught

- advising on in-service training to staff where appropriate. This will be in line with the needs identified in the Development Plan and within the confines of the school budget
- advising and supporting colleagues in the implementation and assessment of mathematics throughout the school
- assisting with requisition and maintenance of resources required for the teaching of mathematics. Again this will be within the confines of the school budget

## **9. ROLE OF MATHEMATICS TEACHER**

- to ensure progression in the acquisition of mathematical skills with due regard to the Primary and Secondary Framework s and consequently the New National Curriculum 2014.
- to develop and update skills, knowledge and understanding of mathematics
- to identify inset needs in mathematics and take advantage of training opportunities
- to keep appropriate on-going records
- to plan effectively for mathematics (with year group partners), liaising with subject leader when necessary.
- to inform parents of pupils' progress, achievements and attainment

## **10. EQUAL OPPORTUNITIES**

We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multicultural aspects of mathematics eg. Islamic patterns in RE.

All children have equal access to the curriculum regardless of their gender. This is monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups.

## **11. PARENTAL/CARER INVOLVEMENT**

At The Forest School we encourage parents and carers to be involved by:

- inviting them into school twice yearly to discuss the progress of their child
- inviting them into school on an annual basis as part of their EHCP Review
- inviting them to curriculum evenings or circulating information via newsletters when significant changes have been/are made to the mathematics curriculum
- holding workshops for parents/carers focusing on areas of mathematics

This policy was adopted by the Governing body on 4.3.10