



## **Mathematics Policy**

Policy written – January 2019

To be reviewed – January 2021

## Mathematics Policy For The Acorn Federation

### **1 Aims and objectives**

**1.1** 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.

**1.2** The aims of mathematics are:

Using the Programmes of Study from the National Curriculum (2014), it is our aim to develop:

- a positive attitude towards mathematics and an awareness of the fascination of mathematics
- competence and confidence in mathematical knowledge, concepts and skills
- an ability to solve problems, to reason, to think logically and to work systematically and accurately.
- initiative and an ability to work both independently and in cooperation with others
- an ability to communicate mathematics
- an ability to use and apply mathematics across the curriculum and in real life
- an understanding of mathematics through a process of enquiry and experiment

### **2. Teaching and learning style**

**2.1** See Teaching and Learning Policy

### **3 Mathematics curriculum planning**

**3.1** Mathematics is a core subject in the National Curriculum, and we use White Rose as the basis for implementing the statutory requirements of the programme of study for mathematics.

**3.2** We carry out the curriculum planning in mathematics in three phases (long-term, medium-term and short-term). The long term plan is based on National Curriculum Programmes of study, while our yearly teaching programme identifies the key objectives in mathematics that we teach in each year. Where possible, maths will be taught, highlighting the purpose for learning and within real life contexts, although the vast majority will be taught in discrete mathematics lessons.

**3.3** Our medium-term mathematics plans, (adopted from White Rose) give details of the main teaching objectives for each term, and define what we teach. They ensure an appropriate balance and distribution of work across each term. These plans are stored in digital format and are available for monitoring purposes.

**3.4** It is the class teacher who completes the weekly plans for the teaching of mathematics. These weekly plans list the specific learning objectives for each lesson and give details of how the lessons are to be taught. Each child has a copy of the specific learning objective for each series of lessons, stuck in their book.

**3.5** We teach mathematics in our reception class. As the class is part of the Foundation Stage of the National Curriculum, we relate the mathematical aspects of the children's work to the Early Learning Goals, which underpin the curriculum planning for children aged three to five. We give all the children ample opportunity 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.

## **4. Delivery**

In Key stage 1 and 2:

- Mathematics is mostly delivered through a daily lesson which includes practicing of previously taught skills followed by a main teaching input.
- Where possible, cross-curricular links are incorporated, particularly with Science and Geography.
- Reasoning and problem solving are also an integral part of each lesson.
- To try to ensure that at least 85% of children in each year group can access the age-appropriate curriculum, intervention is delivered to narrow any gaps in learning, in addition to having small focused teaching groups within lessons.
- Children are given the opportunity to work in a range of groupings enabling them to work independently or collaboratively as required.
- Homework is linked to practicing skills such as multiplication tables. Children can access a computer based series of games and activities at home, to support their learning.
- Children who require 'greater depth' activities are given challenging activities within the lessons. Some may require to work beyond their age group.
- Teachers follow the calculation policy when teaching calculation methods (taken from the appendices of the National Curriculum 2014).

## **5. Computer Science**

Computing is used to support and enhance children's learning eg Scratch and spreadsheets

## **6 Teaching mathematics to children with special needs**

**6.1** See the SEN policy

## **7. Assessment and Record Keeping**

Children are assessed both formally and informally.

**7.1** The children are assessed informally on a daily basis to inform planning. This may take the form of questioning during the lesson, particularly the plenary or through marking of work. The specific learning objective sheets are annotated by the children or adults to help to record how confident the children feel about the subject content and the use of reasoning and problem solving skills

**7.2** Children are given 'Next Steps in Learning' targets in their maths books. In KS1, small daily next steps are given.

**7.3** All staff mark books in line with the school marking policy. Children are also expected to respond to marking in line with the school marking policy.

**7.4** Children are assessed on a more formal basis once each full term to mark progress and attainment. NFER assessments are used at the beginning and end of each year in the Junior groups. These form an important part of the tracking procedure. The data is also analysed to inform the short and long term planning and for setting class targets.

**7.5** Teachers meet on a half termly basis to discuss the progress of children.

## **Resources**

**8.1** There is a range of resources to support the teaching of mathematics across the federation. These are mostly stored in the relevant classroom. Children also have access to aids such as digit cards and number lines. A range of interactive programmes are available as teaching aids eg Nrich, ITPs. There is a range of activity resources available: Collins books, CGP; Nelson Thornes; Spectrum; Mathematical Challenges; White Rose Hub and NCETM.

## **Monitoring and review**

**9.1** Monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the mathematics subject leader, Head and Governor responsible for mathematics. 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. The mathematics subject leader gives the Head teacher an updated action plan each year. A named member of the Federation's governing body is briefed to oversee the teaching of numeracy. This governor carries out learning walks to aid monitoring.

This policy will be reviewed in January 2021.

Signed \_\_\_\_\_

Date January 2019