

St Nicholas Primary School



Mathematics Policy June 2020

ST NICHOLAS PRIMARY SCHOOL

MATHEMATICS POLICY

Introduction

At St. Nicholas School we believe teaching mathematics can provide powerful ways of exploring, investigating and understanding the world. Mathematics can help children to tackle a variety of practical tasks and to solve real life problems. We want the pupils of St. Nicholas School to become competent and confident mathematical learners by developing their knowledge and skills including their ability to apply them across the different curriculum subjects.

Objectives

- To provide a mathematics curriculum that uses engaging activities and resources that enables us to deliver maths in a meaningful and interesting manner.
- To teach mathematics in a range of contexts in order to develop pupils' ability to apply skills to their daily lives.
- To nurture positive attitudes, confidence and competence by matching activities to the child and providing opportunities to learn in ways that foster their chances of success.

Intent

Our aims in teaching mathematics are that the children will:

- Understand that Maths skills are a crucial part of life skills and equipping them with the necessary skills
- Enable children to explore, investigate and understand the world by building a curiosity of Maths around them
- PURPOSEFUL
- Cross curricular links throughout the day
- Understanding of mathematical vocabulary
- Learning through play
- Enjoy the subject and engage with their learning through practical activities, exploration and discussion.
- Be motivated by a variety of teaching and learning strategies and develop a positive attitude towards mathematics.
- Become competent and confident in mathematical knowledge and skills and quick recall of basic facts.
- Develop the skills to work independently and collaboratively and to be resilient when problems arise
- Develop an ability to solve problems in a range of contexts.
- Be able to use and apply mathematics across the curriculum and in real life.
- Use their developing awareness to anticipate and predict changes.

- Explore features of shape and space and develop measuring skills.
- Supporting those children who exceed expectations

Curriculum and Organisation

The Foundation Stage (Reception – Year 2)

We teach mathematics **using the guidelines of the EYFS profile to summarise and describe the children's attainment**. The Foundation Stage Leader will modify the programme of study and *Early Learning Goals* from the *Revised Statutory Framework for Early Years Foundation Stage 2019*.

Mathematics in the Foundation Stage, referred to as Mathematics (Numbers, Shape, Space and Measures), is initially taught through songs, stories, games and imaginative play. The EYFS learning environment includes visual images, models and a variety of resources to stimulate the pupils' interest. This interest helps the pupils to begin to relate mathematics to their daily lives.

The Primary Phase

Mathematics is a core subject in the National Curriculum. It is categorised into 4 attainment targets:

- Using and Applying Mathematics (Ma1)
- Number (Ma2)
- Shape, Space and Measures (Ma3)
- Handling Data (Ma4)

Using and Applying Mathematics

The main focus will be to build on familiar, practical situations that enable pupils to predict what will come next, and what action or response will lead to a familiar outcome. It will provide opportunities to make connections, recognise patterns and relationship, and make predictions. This will help pupils move towards creating their own patterns and rules.

Number

The main focus will be to build on pupils' earliest perceptual awareness of quantity. Before they develop counting skills, pupils use this awareness to anticipate, predict and to modify their actions. Introducing a formal system of counting will support pupils' increasing awareness of number. This development, in turn, will lead to activities that involve manipulating numbers. The progression in calculation methods is outlined in the St. Nicholas School Calculation Policy.

Shape, Space and Measures

The main focus will be to build on the way pupils respond to similarities and differences, *for example, in position, movement, size, weight, duration and temperature*. Relevant experiences and opportunities for exploration and investigation move from simple trial and improvement responses to more precise responses. Such experiences with in shape, space and measures can help pupils to organise and classify their environment in a meaningful way.

Data Handling

The main focus will be to build on familiar and routine activities by providing new ways of thinking about them. Pupils will move from matching objects/symbols to real events and people to representing information or data in a variety of forms, *for example, tables or graphs*. Pupils will begin to interpret information and data and describe it to others.

Staff at St. Nicholas School will modify the programme of study from the *National Numeracy Strategy and the Numeracy Framework* to give all pupils relevant and appropriately challenging work at each key stage. Staff should teach knowledge, skills and understanding in ways that match and challenge their pupils' abilities. Staff can modify the mathematics programmes of study for pupils by:

- choosing material from earlier year groups and key stages
- maintaining, reinforcing, consolidating and generalising previous learning, as well as introducing new knowledge, skills and understanding
- focusing on one aspect, or a limited number of aspects of the age-related programmes of study, in depth
- using everyday activities, shared routines and events, which capture and hold pupils' attention and interest, as the starting point for mathematics
- using cross-curricular teaching to reinforce and consolidate mathematical concepts.

Mathematics at St. Nicholas School covers the whole **EYFS, Croydon Bridging Standards and National Standards:**

- **At EYFS levels it covers a child's developmental stage at 8 months– 60 months.**
- **Bridging levels B1 – B3 from P levels to the national standard for each year group.**
- **Milestones 1- 6 to show a child is working at the standard of a year group child for Number and Geometry.**

Lessons

Mathematics is taught on a daily basis as a discrete subject or across the other curriculum subjects.

Each discrete lesson will include differentiated learning and teaching outcomes, with some whole class teaching and some individual and/or group activities and a plenary.

Target Setting

Annual targets are set in maths through the Annual Reviews. From these annual targets short term targets are developed termly in order to create Personal Learning Targets. Pupils are aware of their targets, which are displayed within the classrooms.

Inclusion

At St. Nicholas School we aim to provide an inclusive curriculum which will meet the needs of all pupils, where the teaching and learning, achievement and well-being of every child matters. All pupils have equal access to the curriculum regardless of ability.

ICT

The use of ICT is an integral part of mathematics teaching and learning. Teachers will use a range of internet based resources and programmes such as 'Education City' to enhance their teaching. Also, they will use interactive whiteboards to develop learning using software such as 'Numicon' and 'Percy's Maths'. There will be opportunities for pupils to use these sites and programmes individually using computers in their classroom or in Beaumont Primary School ICT suite (Years 2-6).

Additional ICT resources:

- Bee bots
- Remote control vehicles
- Cameras
- Video cameras
- I Pads
- Calculators
- Electronic scales
- Visualizers

Equal Opportunities

All pupils have equal access to mathematics. We pay particular attention to ensuring there is no gender bias in materials, including ICT. Any displays and references to mathematics in society, should demonstrate positive role models of gender, race, culture, ethnicity and disabilities.

Social, Moral, Spiritual and Cultural Development

When teaching mathematics we will emphasise that the knowledge and skills we use today are a result of human activity over a very long period of time and in many diverse cultures across the world. Pupils will be provided with opportunities to reflect upon and discuss their opinions and responses to mathematical experiences.

Assessment and Record Keeping

Assessment is an integral part of teaching and learning. It is the responsibility of the class teacher to assess all pupils in their class. We are continually assessing pupils and recording their progress. This allows us to match the correct level of work to the needs of the pupils ensuring progress.

Where possible, pupils should be involved in assessing their own work. This might include the 'Traffic Light' system or discussion during plenaries about the pupils' learning.

Pupils work is recorded in individual workbooks or folders and include photographs, images, worksheets, drawings and written work.

Home/School Links

Our relationship with parents is very important when supporting their child's mathematical skills. We involve parents in their children's learning by:

- Providing regular parents' evening, which give them verbal and written feedback (IEPs).
- Providing verbal and written feedback on progress during Annual Reviews.
- Providing weekly curriculum letters informing the parents on the areas of the curriculum that are being covered.
- Providing an end of year report.
- Providing Parent Support Group meetings on how we teach mathematics and how they can help.

This policy is to be read in conjunction with:

- Teaching and Learning Policy
- Calculation Policy
- ICT Policy
- Equal Opportunities Policy
- SMSC Policy