

# NEWFIELD SCHOOL



## **Lower School Maths Policy**

Co-ordinator - Mr D Lancashire

Policy Amended: September 2021

Next review: September 2022

**Newfield Lower School Mathematics Policy**

## **Departmental Overview**

Through a positive and caring environment, we provide the opportunity for every child to reach their full potential in mathematics.

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 positive and enthusiastic attitude towards mathematics that will stay with them during their life outside of school.

## **Aims**

Mastery of Mathematics is a key life skill. Without basic numeracy skills our children will be disadvantaged throughout life. It is important to establish a positive “can-do” approach from the outset to encourage our learners to see themselves as capable and to promote healthy self-esteem.

Not all children will progress in their learning at the same rate, therefore we aim to provide opportunities for each child to achieve success at whatever stage of development they are at and lead them forward at a rate that is comfortable for the individual.

Our Maths department in lower school build the confidence of students by setting achievable goals, celebrating successes and using fun and interesting ways of engaging students.

We aim to provide a firm foundation of basic skills alongside encouraging an investigative approach. From this we would hope to develop the skills of: -

- Selecting appropriate materials and methods
- Working systematically
- Recording and arriving at a satisfactory conclusion independently

## **Organisation**

The school covers the whole age range from 5 to 16 years; therefore all four Key Stages of the National Curriculum are followed. All work is based on National Curriculum programmes of Study and Attainment Targets.

In Key Stage 1 and 2, work is planned and inputted using an interactive scheme of work and supported by text books and worksheets which allow for differentiation.

Children also have access to games and activities that are set towards reinforcing learning that has taken place that week. Children are also able to use the online learning platform at home as part of their learning at home.

At the end of Key Stage 2, children will sit their SAT's examinations, with maths consisting of an Arithmetic Test and Two Reasoning Tests. Through regular monitoring and assessment if pupils are not deemed as having the reading ability to complete the examinations independently, where necessary, provisions can be made to assist with reading, and in more difficult circumstances, a scribe.

As well as their maths lessons, staff members encourage pupils to find mathematical links in lessons and activities throughout other areas of the curriculum.

## **Teaching and Learning Strategies**

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When introducing an unfamiliar topic or strategy, it is presented to the whole class. Following this, students work is differentiated to target the needs and abilities of the individuals.

Those needing extra help are supported by teachers and support staff and where necessary, given extra interventions. Students, who understand the concepts and strategies with greater confidence and skill, are challenged by being given work that extends their learning in greater depth.

Where appropriate, work in small groups or pairs, is encouraged to allow children to share their knowledge and work collaboratively on a project or activity. At Newfield, this is a vital skill as not only does it encourage team work, it builds relationships and strengthens social skills.

We have a mixture of practical, written, oral and play activities to build a range of maths skills, both involving mental and written strategies.

Working walls and displays should be used whenever possible in class to be used both to show a range of children's work and acting as a visual reminder of strategies learned.

### **Cultural Capital**

At Newfield School, we are all passionate and committed to providing the children in our care with outstanding learning opportunities.

Our aim is to enrich every child's school experience, to be educated citizens, by creating an environment where they are encouraged to succeed and be the best they can be. Cultural capital is about preparing children with the essential knowledge and skills for what comes next. The exploration of new skills and experiences helps to nurture resilience, curiosity and creativity. Through this journey children develop new forms of cultural capital that makes a difference in individual mind-sets, which consequently shapes their future.

Through our curriculum all children at Newfield, are exposed to enrichment opportunities which allow them to experience the awe and wonder of the world in which they live.

Our cultural capital journey focuses on the following enrichment opportunities, which are shown below:

- Our Community
- Health and Wellbeing
- Rise to the challenge
- Express yourself
- Awe and wonder

### **Inclusion**

At Newfield School we work hard to ensure that every member of our school community – pupils, parents, staff and visitors – feel safe and included. We are an inclusive school and every child, whatever their individual abilities or needs, is equally valued and welcome here. We expect all parents and visitors to understand and support our inclusive ethos. What does Inclusion mean? Inclusion is a universal human right. The aim of inclusion is to embrace all people irrespective of race, gender, disability, medical or other needs. It is about giving equal access and opportunities and getting rid of discrimination and intolerance. Inclusion in schools In education 'inclusion' describes the right of parents and children to access mainstream education alongside their peers. Inclusion is about providing equal opportunities for all children.

Inclusions means that all of the following groups have the same rights:

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- boys and girls
- minority ethnic and faith groups, travellers, asylum seekers and refugees
- children who need support to learn English as an additional language
- children and with additional educational needs
- gifted and talented children
- children who are looked after by the local authority
- children with disabilities
- children with medical conditions
- children from families under stress children at risk of exclusion

Sometimes children in these different groups may behave in ways that we find difficult to understand. In particular, children with additional needs and/ or disabilities can demonstrate different and even sometimes challenging behaviour.

## **Resources**

In Lower School, we have textbooks, interactive whiteboard resources and subscriptions to online resources including Active Learn - Abacus. There is selected equipment designed to support and extend the mathematics curriculum will be centrally based for all to access. We work together as a staff to make sure resources are available to all when needed.

Some frequently used materials, such as multibase blocks, counters, measuring tapes, 1-10, 1-50 number lines, hundred squares, counting sticks and calculators, are kept in the classrooms.

A number of programmes such as Active Learn and Maths Games are available to be used in the computer suite which reinforces the National Curriculum Programmes of Study.

Mathematics is taught by the class teachers but support staff can be usefully employed when a one to one situation is required for helping with small groups or simply to be available generally.

## **Assessment and recording**

At **Newfield School** we teach mathematics to all children, whatever their ability. Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our mathematics teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels.

When progress fall significantly outside the expected range then interventions will be put in place.

We assess children's work in mathematics from three aspects (long term, short-term and medium-term). We make short-term assessments which we use to help us adjust our daily plans. These short-term assessments are closely matched to the teaching objectives.

We make medium-term assessments to measure progress against the key objectives, and to help us plan the next unit of work.

We make long-term assessments towards the end of the school year and we use these to assess progress against school and national targets. We can then set targets for the next school year and make a summary of each child's progress before discussing it with parents.

### **Monitoring and review**

Monitoring of the standards of children's work and of the quality of teaching in mathematics is initially the responsibility of the mathematics subject leader. The mathematics subject leader gives the head teacher an annual summary in which s/he evaluates strengths and weaknesses in the subject and indicates areas for further improvement. There will be allocated regular time for the mathematics subject leader so that s/he can review samples of children's work across the school.

### **Work Sampling**

- Evidence files of all KS1/2 classes to be moderated once per term.
- A moderation sample will be selected by Mr Lancashire (Maths Co-ordinator)
- The moderation external partners are Crosby High School and Presfield School. External moderation of at least 2 pupils from the class will aim to check marking against national guidelines on a termly basis.

### **Numeracy**

The School aims to empower pupils with the **numeracy** skills required for them to become confident learners and lead fulfilled lives as citizens of their local and the wider community.

Numeracy is a skill that involves confidence and competence with numbers and measures. It requires an understanding of the number system, and an ability to solve number problems in a variety of contexts. Numeracy also demands practical understanding of the ways in which information is gathered by counting and measuring, and is presented in

- Graphs
- Diagrams
- Charts
- Tables.

Mathematical skills can be consolidated and enhanced when pupils have opportunities to apply and develop them across the curriculum. Poor numeracy skills, in particular, hold back pupils' progress and can lower their self-esteem. To improve these skills is a whole-school matter. Each department identifies in their planning the contribution it makes towards numeracy and other Mathematical skills so that pupils become confident at tackling mathematics in any context.

At Newfield School, numeracy is embedded across the curriculum through planning and assessment. Weekly words and phrases are displayed in all classrooms and referred to throughout lessons.

## **Contribution of mathematics to teaching in other curriculum areas**

### **English**

Mathematics contributes significantly to the teaching of English in our school by actively promoting the skills of reading, writing, speaking and listening. For example, we encourage children to read and interpret problems in order to identify the mathematics involved. The children explain and present their work to others during plenary sessions.

### **Information and communication technology (ICT)**

Teachers of mathematics at Newfield are encouraged to make ICT a part of each lesson. Classrooms have interactive whiteboards and this has helped broaden teaching and learning strategies. Each room contains at least one computer and we have software such as Whiteboard Maths, Education City which is used across the school to aid the teaching of Mathematics.

Children use and apply mathematics in a variety of ways when solving problems using ICT. E.g. to produce graphs and tables when explaining their results or when creating repeating patterns.

### **Personal, social and health education (PSHE) and citizenship**

Mathematics contributes to the teaching of personal, social and health education, and citizenship. The work that children do outside their normal lessons encourages independent study and helps them to become increasingly responsible for their own learning. The planned activities that children do within the classroom encourage them to work together and respect each other's views.

### **Spiritual, moral, social and cultural development**

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results.

### **Equal Opportunities**

In order to give each pupil an equal opportunity to achieve their potential, individual help is often at hand for those who find this subject particularly difficult. It is expected that both girls and boys will have access to all areas of the mathematics curriculum. We do not have stereo – typed pre – conceptions of what individual strength in mathematics, to participate in mathematical activities in a mainstream school. This will therefore give opportunities for pupils to work towards a recognised qualification.