



# Maths Policy

The National Curriculum states Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

## **Importance of mathematics to pupils with learning difficulties**

Mathematics runs through our lives providing ways of exploring, investigating and understanding the world.

It is a tool that supports our practical existence in many ways by helping us make comparisons, identify differences, investigate relationships and establish connections. We use these processes in our everyday lives -- and to support our learning in subjects across the curriculum during the school years.

Even in the earliest days of our lives we have instinctual interest and appreciations of quantity, sequence, pattern and change; building upon these fundamental mathematical inclinations is vital to everyday life and learning. (Les Staves).

## **Maths at Greenside**

Lessons for our pupils should focus on and build upon fundamentals, there is a great deal of mathematics to be learned before counting can be effectively learned and learning about counting itself involves the co ordination of many skills.

Maths is beyond counting; our pupils need broad practical and learning experiences, to develop their appreciation of estimation, calculation, shape space etc.

Mathematics lessons and maths encountered across the curriculum offer pupils with learning difficulties opportunities to:

- Build on their awareness of events and actions and recognise changes in pattern, quantity and space that occur in their lives, both the immediate environment and in the wider world.

- Use their developing awareness to anticipate and predict changes.
- Use their awareness and developing understanding of pattern, space, shape and number, to develop problem-solving skills that contribute to making choices, taking decisions and gaining control over their immediate environment
- Extend mathematical skills, experiences and understanding which enable them to visualise, compare and estimate. For some more able pupils this may be achieved in abstract as well as concrete contexts.
- Begin to think about the strategies they use and explain them to others.
- Develop a powerful set of thinking tools to help them increase their knowledge and understanding of the world and, during the school years, to learn effectively in different subjects across the curriculum.

### **Mathematical Progress**

The national Curriculum guidelines recognise that pupils with learning difficulties may not progress at the same rate as their peers. Our pupils need time and wide experience to consolidate learning and apply it in wide circumstances – we describe this as lateral progress. The National Curriculum body also recognises that for some pupils who suffer degenerative conditions it is the school's role to support the pupil in maintaining skills where possible.

When we observe the progress of the neuro-typical, we usually look for increasing ability to manipulate number symbols in the processes of calculation. For our pupils who are developing fundamental understandings and practical skills we need to be aware of different ways in which we might see them progress.

### **Pupils can make progress in mathematics by:**

- Developing their attention to sensory properties to encompass an appreciation of mathematical properties – *Appreciation of quantity, changes, sequence, shape space etc*
- Learning to use such information to anticipate, predict, and then actively respond to, or solve problems.
- Increasing the breadth of their mathematical experience and their ability to apply it eg linking and applying mathematical knowledge and understanding to everyday life, for example, to food technology, to their own health, shopping,
- Communicating their understanding to others with increasing clarity
- Using mathematical information to make choices and decisions in an increasing range of contexts.

- increasing the breadth and depth of their experience, knowledge and understanding
- developing an understanding of the more abstract as well as the concrete and practical
- Moving from description to explanation of events and phenomena.

### **Teaching and Learning**

Individual class teachers are responsible for their own class organisation and teaching style in relation to Mathematics while at the same time ensuring that these complement and reflect the overall aims and philosophy of the school. School offers teaching materials from Greenside SoW, Equals, Special Maths (Les Staves material), Cornwall Maths,

### **Assessment**

Teachers are expected to use the system that has been developed as part Greenside's assessment , we formally assess with PIVATS in May of each school year.

In addition teachers are expected to continually assess pupils " current understanding and knowledge in order to ensure that appropriate learning targets are set.

### **Reporting**

Mathematics will be reported on in the End of Year Reports

### **Resources**

A range of resources for Mathematics are available in school. Some resources are stored centrally, but the majority are located within individual classrooms. There are 2 sets of Numicon Materials in school to be shared. ICT provides access to Mathematics in an exciting manner. A variety of software is available to enhance learning opportunities such as iPads, roamers and remote cars.

### **Monitoring and Evaluation**

Monitoring and Evaluation will be carried out in order to enhance the teaching and learning of Mathematics within our school. Evaluation will be conducted according to the priority given to Mathematics within the School Improvement Plan (SIP). The curriculum leader is available for advice and is responsible for aspects of monitoring and evaluation.

### **Review of the Policy**

The policy will be reviewed annually by the Head and subject leader in line with whole school procedures.

*(written November 2015 AW / HD)*