

## Maths

### Introduction

At Greenvale Primary School we believe that mathematics is a tool for everyday life. It is a whole network of concepts and relationships which provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems

A good mathematician at Greenvale will....

- Have a positive attitude towards mathematics and an awareness of the fascination of mathematics
- Be able to use reasoning skills to move a solution towards proof.
- Be able to identify mathematical relationships, spatial, numerical and logical, and see their relevance to everyday life.
- Be able to carry out practical activities involving measurement, estimation and calculation.
- Be able to use money in everyday situations.
- Be able to read and record mathematical statements using correct terminology and symbols.
- Be able to use and interpret diagrams, charts, graphs and tables.
- Be able to apply mathematics to real life situations.
- Have developed an understanding of mathematics through a process of enquiry and experiment.
- Be able to apply their mathematical understanding to solve a variety of problems.
- Be able to choose and utilise the most appropriate method to solve a problem.

### Management



The role of the Maths Co-ordinator:

- Ensure a core of material is available
  - Review and monitor planning
  - Monitor maths teaching and evaluate pupil's work
  - Arrange liaison with the advisory staff
  - Work alongside staff to support if required
  - Review specific interventions and monitor the impact
  - Attend relevant courses to be aware of new ideas and disseminate these to all staff and to arrange appropriate inset for colleagues
  - Carry out a curriculum review and relay findings to the Governors curriculum committee and staff
  - Update the policy document and schemes of work as necessary

The Maths Co-ordinator and Headteacher will ensure that new members of staff are introduced to the policy, planning requirements, specific targets and resources. NQTs receive additional LEA training as part of their induction.

Best practise will be ensured and liaison facilitated across Key Stages by regular meetings between Foundation, KS1 and KS2 and co-ordinators

### **Teaching and Learning**

Through careful planning and preparation we aim to ensure that throughout the school children are given opportunities for:

- Practice skills with practical activities and mathematical games
- Problem solving and reasoning activities
- Individual, group and whole class discussions and activities



- Learning methods of calculating e.g. mental, pencil and paper
- Working with technology as a mathematical tool

Our staff has high expectations of all children, irrespective of ability, and encourage them to be successful and achieve their full potential.

TAs are available and are used to support individuals or groups, either within the class or withdrawing them for intervention strategies.

We will judge the success of our mathematical teaching by:-

- The motivation and interest displayed by our pupils
- KS1 and KS2 SAT results
- Formative termly White Rose assessments & informal 'End of Block' Quizzes.
- Value added gauged through Croydon tracking grids
- Success in meeting targets

### **Special Educational Needs**

Children with SEN are normally taught within the normal mathematics lesson. When additional support staff are available to support groups or individual children they may withdraw small groups to use intervention materials.

Within the mathematics lesson teachers not only provide activities to support children who find mathematics difficult, but also activities that provide appropriate challenges for children who are high achievers in mathematics.

### **Equal Opportunities**



All children should have equal access to the curriculum, irrespective of particular circumstances such as race, background, gender and capability. In the daily mathematics lesson we support children in a variety of ways.

e.g. repeating instructions, speaking clearly, emphasising key words, using picture cues, playing mathematical games, encouraging children to join in counting, chanting, finger games, rhymes etc.

## **Resources**

Pupils should engage in activities from a variety of sources – practical apparatus, worksheets, textbooks and the environment. They should also have the power to solve real and challenging problems. Through exciting problem solving activities and where appropriate access to computers and online resources children will develop their problem solving and reasoning skills. **The use of problem solving activities and ‘blank boxes’ encourages children to think about and apply their understanding to problems in every lesson and builds links between different areas of the mathematics curriculum.**

Staff use the White Rose materials and planning to structure their year in a progressive fashion, allowing for practise and revision of key skills throughout the year. The White Rose problem solving and fluency activities combined with practice tasks ensure that children not only develop an understanding of a topic but a mastery of it with a broad range of experiences. Pupils should be able to input collected data and interrogate this data. Classes have their own stock of resources appropriate to age and ability. Some resources are held centrally.

Children have access to Time Tables Rock Stars to practise and improve their times tables skills and achievements in this are celebrated by each class.

## **Assessment, Recording and Reporting**

*“...assessment ‘ refers to all those activities undertaken by teachers, and by their students in assessing themselves, which provide information to be used as feedback*



*to modify the teaching and learning activities in which they are engaged.” (Black and William, 1998, Inside the Black Box, nfer Nelson)*

These are all designed to take learning forward, pupils will be assessed using a variety of strategies - observation, questioning, marking in accordance with the school's marking policy and testing using a range of set tasks designated as appropriate to test individual pupils, groups or a whole class on an individual or range of attainments. Such assessment will by necessity be on going.

In the Foundation classes the pupils will be assessed in order to complete the Early Years Foundation Stage Profile throughout the year. The focus will be on:

- Numbers as labels and for counting
- Calculating
- Shape, space and measures

In KS1 and 2, children (who are above the appropriate threshold) will be assessed using a variety of summative and formative methods. At the end of each term, children are assessed on the topics they have covered using the White Rose Termly assessments, these combined with informal 'End of Block' Quizzes allows the teacher to assess closely the learning that has taken place. . Furthermore, the teacher will, using evidence from these assessments and work completed in class to make overall judgements against the yearly expectations for their year group.

At the end of Year 2, children will take part in the KS1 SATS tests. These will determine if the children are above, below or in line with yearly expectations.

At the end of Year 6, children will sit the nationally set tests (SATS). These tests will be administered according to the Government guidelines and are marked externally.



We will use the same terminology in our reporting to parents as is in line with the new national curriculum expectations.

Regular opportunities will be provided in maths and across the curriculum to achieve the skills necessary to reach these targets.

### **Liaison**

To ensure consistency and progression in the Mathematics curriculum throughout the school we currently:-

- Meet together regularly in separate phases to discuss current mathematics issues, look at planning and moderate.
- Discuss mathematics requirements in whole staff meetings
- Attend training in key stage or whole staff groups
- Pass relevant records of attainment and pieces of mathematics work up to next class teacher.
- Moderate teacher's assessment of pupils during SLT meetings.

### **Reporting to Parents**

Parents are given the opportunity to discuss their child's progress on three official occasions but understand that the schools' 'open door' policy enables them to address concerns throughout the year.

Reports are completed before the end of the summer term.

Teachers use the information gathered from their assessments to help them comment on individual children's progress.

- Parents are invited into school twice yearly to look at their children's work.



- Parents are invited into a breakfast morning/afternoon tea where they have the opportunity to raise any issues with teachers.

Maths – Coordinator – Alastair Crow

