

# Glynwood Primary School

## Mathematics Policy

At Glynwood we believe that it is important for children to enjoy mathematics. We aim to develop competency and understanding and enable all children to gain access to a wide range of mathematical activity.

We aim to help children see mathematics as it relates to the world around them: That mathematics can be a tool with which to explore the environment.

We aim to enrich learning through a variety of experiences and opportunities so that children can build a progression of skills and concepts as they develop through school.

### Audience and Purpose

This policy will be used for

- discussion and reference by staff
- guidance for newly appointed teachers and temporary teachers
- information for parents
- discussion by governors
- reference for inspectors and advisors
- monitoring by the subject leader and senior leadership team

### Areas identified within the policy

1. To have clearly identified roles and responsibilities for the subject leader
2. To have an agreed philosophy and ensure a whole school approach to the teaching of mathematics
3. To allocate appropriate available resources to meet the needs of the National Curriculum
4. To provide appropriate INSET for staff and support within school.
5. To be creative with Maths teaching to engage pupils.
6. To establish effective procedures for pupil tracking and assessment.
7. To monitor and review mathematics in the school, report to Governors, and liaise with the governor allocated to mathematics.
8. To use community involvement, local studies and secondary school liaison to enrich opportunities for learning mathematics.
9. To identify and provide for children with special educational needs and for Gifted and talented pupils
10. To establish and maintain home school links with regard to the mathematics

curriculum.

11. To liaise with external agencies in the support and development of mathematics curriculum and practice.

## **Roles and Responsibilities**

The Maths leader has responsibility for leading mathematics across the school.

Main areas of responsibility are:

- Develop curriculum audits which contribute to the whole school development plan
- Update the policy document to reflect good practice in school
- Monitoring of planning/ teaching and work
- Regularly check assessment files
- Organise and budget for resources
- Liaise with colleagues in phase groups to facilitate the teaching of Maths
- Identify INSET needs
- Carry out analysis of SATs and end of year tests to provide staff with ideas and strategies of how to develop their teaching.
- Help identify groups of children and target them with effective interventions

The Maths leader's role is to ensure that these responsibilities are being met and that staff are supported and Maths information is shared. It is intended that members of each phase team will support each other in planning, teaching, assessing and monitoring the mathematics curriculum.

## **Teaching and learning strategies used in mathematics.**

We believe that learning Maths should be enjoyable. We want children to be able to approach Maths with a positive attitude. It is important to foster children's confidence in their ability to meet and deal with mathematical challenges and problems. This will be developed in the quality of experience in learning mathematics. We provide children with as many different opportunities as possible, to develop their skills, knowledge and understanding of all strands of mathematics. Lessons should be crafted towards helping pupils aim for mastery or greater depth in their learning of the subject. In order to do this, teachers need to plan lessons with a mixture of pedagogical approaches. For example, lessons may use a variety of concrete, pictorial and abstract activities and tasks, or different layers of scaffolding used to allow all pupils to access their age appropriate curriculum.

Quality of learning is facilitated by classroom organisation. Each classroom has a recognisable Maths area for the storage of resources and suitable displays. Key Stage 2 has a daily mathematics lesson of approximately 1 hour. Years 1/ 2 have a daily mathematics lesson of approximately 45 minutes and Reception have an allotted Numeracy session rotated

throughout their day. There should be an additional allocated slot for the explicit teaching of times tables, number bonds and arithmetic skills in addition to the daily maths lesson. Daily opportunities for developing reasoning or using and applying skills and written explanations, should occur on a regular basis throughout the teaching week. Staff cover all aspects of the curriculum for mathematics within carefully planned units of work. Staff can organise how they deliver the content of the curriculum in a way that best suits the needs of their class. Staff are supported by the provision of a scheme of work (White Rose) to aid with planning, ideas and resources. Individual staff use and annotate, where necessary, unit plans to suit the children they work with, covering the attainment targets / Early Learning Goals from the National Curriculum, or record evidence in the planning books if they prefer, which contains the objectives being taught and activities for the children for that week. There may be differentiation evident on the planning, but plans should focus primarily on whole class teaching and then scaffolded and supported tasks to suit individual needs. Through close phase planning all children are ensured to receive equal opportunities through appropriately matched and varied tasks.

### **Resource allocation**

A child should be able to recognise the Maths area in each classroom and have access to clearly labelled containers. Resources vary from classroom to classroom depending upon the Maths focus and the needs of particular children. All classes should have physical resources to help with the concrete aspects of learning that are needed to help children gain a greater depth of understanding.

The school has moved recently to the use of White Rose teaching materials, so that teachers can be confident they are covering all aspects of the up to date curriculum requirements.

The school uses concrete resources such as Deines, Numicom and multi-link cubes, that follow the Maths mastery style of teaching. This was developed from being part of the Great North Maths Hub and Shanghai Maths project.

Staff are encouraged to order resources for their key stage on an annual basis within the budget restrictions, whilst the subject leader is responsible for any other additional whole school purchases.

### **Provision of INSET and support**

School based INSET is closely linked to the School Development Plan. It is organised by the Maths Leader and uses outside input when required. INSET can be used to develop teaching skills, share good practice, promote effective use of resources and to keep abreast with new developments. Its purpose is to reinforce skills and confidence in the teaching of mathematics. LA run INSET is available to promote staff professional development. These INSET opportunities can also be used to meet needs identified in appraisal.

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

Maths is used across the whole curriculum where pupils are encouraged to use a variety of mathematical skills in order to achieve a range of learning objectives.

For example: Computing should enhance good mathematics teaching and almost every scientific investigation or experiment is likely to require one or more of the mathematical skills of classifying, counting, measuring, calculating, estimating and recording in tables and graphs. Maths should be celebrated within and outside of the school. The maths lead is responsible for raising the profile of maths across the school and beyond.

## **Assessment and recording**

We assess children's work in mathematics from three aspects (short-term, medium-term and long-term). We make ongoing short-term formative assessments, which we use to help us adjust our daily plans. These short-term assessments are used to ensure maximized personalized learning takes place. We assess to measure progress against the key objectives, and to help us plan the next unit of work. Staff have access to progression maps (created by the NCETM) for the skills that need to be taught and can easily see where the skills have been previously taught and where they will need to go next with their learning.

We make longer term assessments (via half termly tests, teacher assessments and SATS) towards the end of a term or the end of the school year, and we use these to assess progress against school and national targets. We then set targets for the next school year and make a summary of each child's progress before discussing it with parents. We pass this information on to the next teacher at the end of the year, so that they can plan for the new school year. We use SATs with children in Year 2 and Year 6, and half-termly arithmetic and reasoning tests throughout school. We also make annual assessments of children's progress measured against the level descriptions in the National Curriculum and have access to Testbase materials to support this. The aim is for all pupils to reach the expected progress measure for their age group and in some cases, they will be working at greater depth in a subject.

Targets for pupils can be found in their workbooks and examples of these targets are shared with parents as well as the pupils and they are rewarded for achieving their goals.

## **Monitoring and review**

Curriculum coverage is monitored by checking planning and through a book scrutiny each term and discussing pupil progress with members of different phase groups. The leader monitors teaching methods and work is scrutinised on a regular basis to ensure appropriate coverage and progression throughout the school. Key issues are fed back to staff in whole staff meetings.

Regular pupil discussions also take place to inform the subject leader of the pupils' impression of Maths in each class across the school.

Review, evaluation and subsequent action should proceed from monitoring, so that the teaching of mathematics and curriculum content develop in the positive way. It ensures that the legal requirements of the National Curriculum are met and curriculum development is proactive. Part of the monitoring and review process involves reporting progress and the resulting objectives of the curriculum team to the governing body. This is done in the form of a verbal report to a meeting. Additionally, one governor is appointed to the area of mathematics. That governor and the curriculum coordinator liaise with one another and share up to date information on developments.

### **Community involvement, secondary liaison and local studies**

There are opportunities for mathematics all around us. It would be artificially manufactured if all Numeracy were to be taught within the confines of the classroom. We must balance classroom learning with opportunities in the wider environment.

Occasionally community or business initiatives present themselves and the opportunity to enrich the children's learning can be taken.

When local studies are undertaken it is important to recognise that shape, space, number and data handling can be an integral part of environmental education.

Secondary liaison provides invaluable experience for Year 5 and 6 children in the build up to transfer. Staff work together to enable children to experience mathematics in the secondary school environment which develops confidence and makes transfer less daunting.

### **SEND, G&T & Disadvantaged children**

When teaching mathematics, we are concerned to maximise the development of all children. We recognise that some children have special educational needs. To ensure access to the Numeracy curriculum we use a variety of teaching and learning strategies, which match tasks to ability. Support and scaffolding is given in such a way that SEND pupils still access the main teaching within daily lessons. We address specific concerns through assessment and planned intervention. We have resources in school, which support the teaching of children with special educational needs. These complement the materials provided by teachers and the provision in the school schemes for supporting and reinforcing learning.

For those children who are disadvantaged children, we look to make sure that our teaching concentrates on their development where possible. This could be through specific interventions bespoke to their needs or in class support where required. Additional opportunities to be involved in maths outside the school are also an area where disadvantaged pupils can be targeted to ensure they experience wider opportunities with the subject.

In addition, we also provide significant challenge for the more able pupils in each class, to ensure their potential is reached. Staff aim to deepen their understanding of mathematical ideas and concepts to ensure that it is not only their fluency skills that are advanced, but their reasoning and thinking skills too.

## **Home-school links**

Progress is reported at the first and second terms of the year in parental consultations. Teacher assessment and SAT results are included for year 2 and Year 6 children. Records of Achievement link the child's progress to statements of attainment in the National Curriculum. Parents and Carers are encouraged to voice concerns they may have about their child at other times of the year. Teachers will contact home if they need to share concerns or the achievement. Parents and carers are also encouraged to attend maths classes in school and attend SATs meetings to help support their child. The school website will be used to share success within maths across the school. Homework is given on a weekly basis throughout the school and will vary in format, depending on the topic and the children involved. (refer to Homework Policy).

## **Liaison with external agencies**

LA Maths Consultants are available to liaise with the subject leader in an advisory or support role. Usually the subject leader makes the initial contact. The school has been part of the Great North Maths Hub and developed a whole school approach to teaching Mastery of the Maths curriculum. All pupils will be expected to try and achieve mastery within the subject, but be appropriately supported and challenged in order to do so.

Updated September 2024

S. Otterson