



# Shenstone Lodge School

## Mathematics Policy

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# Shenstone Lodge School

## Mathematics Policy

### Intent

At Shenstone Lodge School our intent is to promote and foster a positive attitude to the learning of mathematics. Our pupils are given the opportunity to recognise the importance of maths in every aspect of daily life.

We will provide all our pupils with a high quality, challenging and engaging curriculum; that provides a mathematical understanding of the world and an enjoyment of maths throughout their lives. Maths for some can be challenging and even more so for a lot of our pupils, who have usually had delays and gaps in their education due to a number of factors. This has informed how we plan and deliver maths at Shenstone Lodge with pupils needs informing our practice, delivery and outcomes both academic and pastorally in a safe, happy, independent learning environment.

Maths is essential to everyday life and we will ensure that pupils are able to apply the mathematical skills and knowledge that they have learned confidently in different subject areas and contexts. This involves the use of real life practical maths in and outside of school using local and wider environment to promote independence and enjoyment of maths. As well as individual and personalised learning for pupils who struggle emotionally with being in a large classroom setting.

Through a broad and balanced curriculum, catering to individual need, we provide our children with carefully sequenced steps which equip them with the knowledge and skills they need for future learning. These involve White Rose Maths, Functional Skills and GCSE.

We will provide opportunities to develop their ability to reason mathematically with a sense of enjoyment and curiosity about the subject, as well as the intention of giving our pupils the best emotional and academic attainment in maths.

## Implementation



White Rose Maths provides detailed "schemes of learning" from Early Years up to GCSE level, lessons are designed to be flexible enough to adapt to any curriculum or timetable.

The White Rose Maths curriculum is designed to provide pupils with a solid foundation in mathematics. Pupils will gain a deep understanding of mathematics and enjoy solving mathematical problems. White Rose Maths is not just about teaching maths, it is about developing mathematical thinking skills. The aim of this program is to ensure that students are able to think mathematically and solve problems with confidence. Planning and recording progress will be done on a half termly basis with all involved with the implementation of maths across both sites. This is to ensure that pupils are not left behind due to personal circumstances. The progress of pupils and gaps will be recorded on our data input system Arbor and the information will be analysed for planning academic and pastoral direction.

White Rose Maths has detailed schemes of learning that informs our long term plans/weekly plans these can be and will be customised for the needs of pupils. Again the direction of learning is dictated by our pupils (our long term plans are supplemented by our medium term plans and short term plans) across both sites. The needs of our pupils are the main focus of direction with all pupils learning in a small classroom setting and some pupils being taught individual in and out of school.

# Our Learning Journey

## Shenstone Lodge School



### Mathematics Learning Journey





## Mathematics Learning Journey



Our aim is for young mathematicians to become:

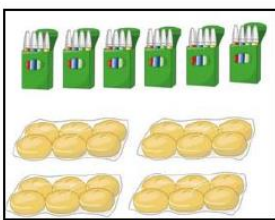
- Confident and able to recall and apply mathematical knowledge in different contexts
- Able to explain their methods and thinking processes and apply skills in context
- Fluent in different areas of maths
- Efficient in applying problem-solving and reasoning skills
- Independent thinkers
- Making number work fun Maths
- Aware of the Maths/ concepts/ process they are 'doing'

Traditional maths teaching has been criticised for being too abstract and difficult to grasp by many young learners. The mastery method is based on the idea that learning mathematics should be fun and enjoyable. It focuses on developing deep understanding rather than memorisation. This means that it helps children develop self-belief, persistence and resilience.

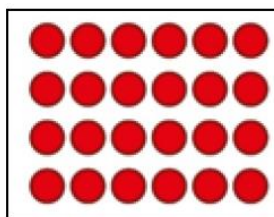
White Rose Maths offers a 'small steps' progression and yearly frameworks, which allow children to learn at their own pace while still achieving high standards.

White Rose Maths helps children develop their conceptual understanding of mathematics by using concrete objects, pictorial representations and abstract thinking. This inclusive approach is based on the principles of cognitive psychology and child development.

Concrete



Pictorial



Abstract

$$\begin{array}{l} 6 \times 4 = 24 \\ 4 \times 6 = 24 \end{array}$$

## Other Elements

### Fluency - Number Facts

It is critical that children know the number facts in line with their year group or the maths they are learning. Without secure number facts, learners have to spend too

much processing time calculating rather than investigating and practising new concepts. Subsequent years build on that experience.

## **EYFS**

EYFS follow the White Rose schemes of learning – principally securing the representations of numbers up to 10 and recognising number to 20. Children are encouraged to spot patterns and identify differences through variation. EYFS children begin their fluency journey by noticing and recalling numbers up to 20. EYFS practice is predicated on exploration and discovery with songs and repetition to secure foundational knowledge.

## **Impact**

Through the White Rose learning journey and the clear small steps approach, the teachers, support staff and the pupils assess their learning continuously throughout the lesson.

At the end of the unit, block assessment tasks are completed, where children have the opportunity to reflect on their knowledge and understanding.

We are developing our assessment systems (Arbor) to enable teachers to make informed judgements about the depth of learning and the progress learners have made over time.

Examinations range from KS1 and KS2 SATS, functional skills qualifications to G.C.S. E's.

## **Monitoring and Evaluation**

The following elements will be monitored:

- Planning (PowerPoint of each Lesson and Sequence)
- Pupil's books
- Pupil conferencing and classroom practice visits through Learning Walks.

Learning Walks will be used to monitor classroom practice - including:

- Learning walls
- Pupil voice
- Delivery of learning
- TA provision including intervention
- Environment

## **Inclusion**

Most of our pupils have experienced aspects of exclusion in their academic experience so, as a school, we will be as inclusive as possible to make pupils school experience enjoyable and meaningful. This means that we will differentiate learning and pastoral experiences to support all pupils in and outside of school to promote and provide inclusion.

All pupils in the school have equality of opportunity in terms of curriculum balance, curriculum time, use of resources, use of facilities and access to extra-curricular activities as well as support from staff members. Differentiation is done by support, outcome or task.

The activities aim to develop a pupil's ability to work independently and to respond appropriately and sympathetically to others, irrespective of their age, gender, cultural or ethical background.

## **Homework**

Homework will be given to all students in KS3 and KS4 to the needs of the pupils.

## **Staff Continued Professional Development**

All staff should take part in professional development to ensure secure subject knowledge, awareness of health and safety procedures and up to date knowledge. Staff should be comfortable and competent in the area of activity being taught. Staff should indicate where they feel they need support so that appropriate support can be given by either the subject leader or the Mathematics Adviser through INSET. There will always be aspects of personal development within this school environment that will be challenging All staff who attends any CPD course must provide feedback and disseminate the information.