

Vernon Primary School



Maths Policy



The intent of the Maths curriculum at Vernon Primary School is to provide every pupil with:

- An understanding of the important concepts and an ability to make connections within mathematics.
 - A broad range of skills in using and applying mathematics.
 - Fluent knowledge and recall of number facts and the number system.
- The ability to show initiative in solving problems in a wide range of contexts, including the new or unusual.
- The ability to think independently and to persevere when faced with challenges, showing a confidence of success.
 - The ability to embrace the value of learning from mistakes and false starts.
 - The ability to reason, generalise and make sense of solutions.
- Fluency in performing written and mental calculations and mathematical techniques.
 - A wide range of mathematical vocabulary.
 - A commitment to and passion for the subject.

Introduction

It is of extreme importance to establish an approach to Mathematics that is agreed upon by staff, children, parents and governors. This policy will state the aims, principles and strategies for the teaching and learning of Mathematics at Vernon Primary School. It reflects the essential part that Mathematics plays in the education of each individual pupil. The implementation of this policy is the responsibility of all teaching staff with support and guidance from the Mathematics subject leader.

The Nature of Mathematics

Mathematics is an important tool that is used within everyday life. It is the development of skills that enable children to understand and make sense of the world. As a result we must ensure that children develop a positive and enthusiastic attitude towards the subject.

Through the teaching of Mathematics using objectives from the National Curriculum children should develop:

- A positive approach towards Mathematics
- The skills to apply Mathematics across the curriculum and in real life problems
- Independent, inquisitive and enquiring minds
- An ability to work both independently and in co-operation with others
- A sound understanding and confidence when working in Mathematics
- An understanding of Mathematics through practical, first hand experiences and recorded tasks

Provision

Foundation Stage

Maths in EYFS takes account of the interests and enthusiasms of young children. They understand that Mathematics is inherent in our everyday lives. Using familiar items to tackle less familiar mathematical ideas, children learn through play, repetition, communication and observation in practical contexts. Children are challenged by open ended questions to develop higher level thinking and they are encouraged to use mathematical vocabulary whenever possible. Maths is integral to science and there are strong links throughout all other areas within the early years environment. Maths activities are carefully planned by the teacher and objectives are taken from the EYFS framework. There are seven key areas of learning of which four are specific areas and Maths is one of these. Children are assessed against the Development matters learning objectives at the end of Reception using the emerging, expected and exceeding criteria. Pupils are also assessed for their 'Characteristics of Effective Learning' which is how a child learns. Many mathematical skills will support these different ways of learning.

Key Stage One and Two

At Key Stage One and Two, teachers plan their lessons using objectives taken from the National Curriculum 2014 for Mathematics. The objectives are mapped out based on the White Rose Materials but adapted to meet the needs of Vernon Primary children. This ensures that there is progression from one year to the next. It also provides the children with key skills in the first term

that they consolidate and apply within other areas of Mathematics across the year. This is under constant review to ensure it continues to meet the needs of the children.

Through careful planning and preparation, at Vernon Primary School, we aim to ensure that pupils are provided with a variety of opportunities to develop and extend their mathematical skills. These are catered for through:

- First hand experiences, often related to real life and where appropriate linked in to the topic, particularly up to Year Four.
- Learning new concepts moving from concrete to pictorial to abstract.
- Fluency, reasoning and problem solving
- Recorded work (two to three pieces a week)
- Individual, group or whole class work
- Open and closed tasks
- Working with computers as a mathematical tool

Planning

Under the 2014 Curriculum there is no set format for the Primary Mathematics lesson. At Vernon, we will ensure that each lesson provides an opportunity for teachers to guide children through their learning and provide opportunities for application of their new knowledge.

Using professional judgement and knowledge, teachers will construct their own framework for the lesson. Each lesson should incorporate whole class teaching, where the children gain new knowledge and have the opportunity to discuss this. Children will work independently to practise and apply this knowledge in differentiated activities. Differentiation remains key to ensuring an outstanding lesson is delivered and children are always achieving their potential and moving their learning forward.

Skills in mental Mathematics will continue to be sharpened but this no longer needs to be part of the Maths lesson. These should be planned activities clearly identified on the planning but may occur at any point throughout the day.

Plenaries are no longer essential in each lesson but should be used where a teacher judges it to be appropriate. Some lessons may require several mini-plenaries throughout the lesson or they may not occur at all. Whilst their place is still of great value, it should be linked into the learning and not a paper work exercise.

Due to the flexibility of the National Curriculum 2014, there may be some days that there is no Maths lesson. However, if this is the case there should be an extended lesson on the following day. In a two week period it is essential that ten Maths sessions are clearly planned and differentiated but they may be taught in blocks.

Planning mathematics is a process in which all teachers are involved. Weekly plans are drawn up by individual class teachers and are then monitored by the head and subject leader. Objectives for Key Stage One and Two are taken directly from the National Curriculum 2014 and have been organised, in consultation with the whole staff, into a Medium Term Plan by the Subject Leader. The organisation of these is based on the White Rose materials but adapted to the needs of the children in our school. All Staff must be aware of these and should follow this when planning.

The school does not use one commercially produced scheme. Teachers are able to use their professional capabilities to select material that is suitable to their class. Staff plan child initiated activities that are practical and challenging. In Years One to Three maths lessons are mostly integrated into the termly topic. From Year Four to Six, lessons are linked to the topic where appropriate but often are discretely taught maths lessons to ensure concepts are embedded.

In order to help sharpen children's mental Maths skills, short daily activities are planned. This should be a short session of no more than ten minutes that must occur daily. In Year One the focus is on number bonds to ten. This focus moves in Year Two to bonds to one hundred. The national expectation is now that our children must know all their times tables to 12 x 12 by the end of Year Four. As a result, in Year Three and Four children have a daily times table session with a different table to focus on each week. From June 2021 Year Four children will undertake a mandatory multiplication tables check.

Remote Learning

Where remote learning takes place due to the pandemic, a Mathematics task will be set daily. This may involve a recorded video, live lesson or the provision of resources to complete a task with clear instructions. The children will access this securely using Google Classroom. Any work submitted by the children will be marked by a member of staff with a brief comment related to the learning objective.

Role of the Subject Leader

The Mathematics Subject Leader holds responsibility for leading mathematics throughout the school. This involves:

- Monitoring the teaching and learning of mathematics across the school
- Informing others of in-service training where appropriate
- Support colleagues in their development of detailed plans and in assessment and record keeping
- Assisting with requisition and maintenance of resources required for the teaching of mathematics
- Monitor progress and continuity from each year group
- Scrutiny of work and planning
- Tracking under achievers and high achievers
- Implementing new initiatives
- Ensuring they have the most current knowledge in Maths teaching
- Monitoring remote learning should it be required.

Role of the Class Teacher

- To develop and update skills, knowledge and understanding of mathematics
- To identify CPD needs and attend training
- To keep up-to-date records of assessment
- To plan effective mathematics lessons, through short, medium and long terms plans
- To mark recorded work in line with the school's Marking Policy 2019
- To inform parents of their child's progress in Mathematics
- To ensure teaching assistants are aware of the role they play in the mathematics lessons.

- To ensure that a maths target is given and reviewed when appropriate for the child in line with the whole school policy

Role of the Teaching Assistant

During whole class work Teaching Assistants can:

- Provide extra support for a targeted group of children
- Prompt children who are shy or lacking in confidence
- Help children to use specific resources to find an answer
- Observe the participation of a fixed set of children to feed into assessment

Within the main part of the lesson Teaching Assistants can:

- Support the work of a small group
- Encourage participation of children in group work
- Look for and note any common difficulties that children have so that teachers can address them during the plenary or subsequent lessons
- Ensure children interpret questions correctly
- Assess children during independent work or whole class

Assessment

Teachers are expected to make regular assessment of each child's progress and to record these systematically. After teaching a week's planning, Teachers must complete the assessment on their planning sheet, using the emerging, expected and exceeding format. The assessments are then used to inform future planning and ensure that work is pitched at an appropriate level.

Inline with the current marking policy, teachers should also complete whole class feedback sheets after any recorded work. This will lead to a FIT (Feedback and improvement time) activity the next day to address misconceptions and consolidate learning.

Children are given individual targets linked to a unit of work of that is being taught, for example Addition or Geometry. Children should have at least one target each half term. Each time they meet their target they will receive a tick. After three ticks, the child will be rewarded and given a new target. The targets will be shared with each child so that they can work towards achieving them and moving their mathematical capabilities forward. As the children progress through the school, they will become more involved in discussing with their teacher what the target should be.

A baseline assessment is carried out as children enter Reception and progress is tracked throughout the year. Children are then assessed at the end of the Reception year against the Development Matters outcomes. When children achieve ELG or above they achieve 'expected' or 'exceeding'. Formal summative assessment is carried out at the end of Year Two through end of Key Stage Assessments and in Year Six through the compulsory SATs.

At the end of each term and during the term Teachers complete their tracking grids to monitor children's progress. This identifies any children who require further support and ensures all children are making progress.

Parental Involvement

- Parents are invited into school three times a year to look at their child's work and discuss their child's progress.
- Parents are invited to an 'Open Evening' in the summer term
- Parents are welcomed into school to work within the classroom
- Parents are encouraged to support their child with mathematics homework in Key Stage Two.
- Parents are invited to a Maths evening when their child is in Year One and Two to establish how Maths is taught at Vernon Primary.
- In Year Five, parents receive a booklet on calculation methods to support them in working with their children at home.

Reporting to Parents

Children's progress is reported to parents in an annual written report at the end of the year.

Homework

Mathematics homework is provided regularly from Year Three onwards. Homework provides parents with an opportunity to work with their child at home and see their progress. These activities may only be brief but are valuable in promoting children's learning in Mathematics.

To support our children in learning their times tables, in Years Three and Four each child has a small squared paper book to practise their times tables. They practise the table that they are focussing on in class that week. This is marked and checked by the class teacher to ensure that each child is making progress. The school provides access for children in Year Three and Four to Times Tables Rockstars. This is an app that the children are expected to use at home to practise their times tables to sharpen their skills.

Please see the Homework Policy for time allocations and expectations.

Special Educational Needs

Children with SEND are taught within the daily Mathematics lesson and are encouraged to take part at every given opportunity in the same way as their peers.

Activities are planned in such a way that all children, no matter what their ability, are encouraged to participate. Teachers use appropriate differentiation within their planning to ensure that all children are being challenged at their own level.

Monitoring and Review:

We are aware of the need to regularly review our policies to take into account the new initiatives, changes in curriculum or developments in technology.

Julie Evans

Subject Leader for Mathematics

Policy date – November 2020

Review Date – November 2022

Ratified by Governors – November 2020