



# Chad Vale Primary Mathematics Policy

At Chad Vale Primary School we follow:

- **The policies and procedures from Birmingham City Council and Birmingham Safeguarding Children Board (BSCB) which includes the Government's Prevent strategy.**

<b>Policy Written by:</b>	Matthew Cham
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<b>School's review date:</b>	September 2025

## CHAD VALE RESPECTING RIGHTS

This policy is written with consideration to our schools commitment to the Rights of the Child (UNRC) and our achievement of becoming a Rights Respecting School. Although direct reference to this is not continuously made, the policy has been written with full awareness of our responsibility and commitment to this purpose. As a school we have decided that the following rights link to this policy:

Article 2 (non-discrimination) The Convention applies to every child without discrimination, whatever their ethnicity, gender, religion, language, abilities or any other status, whatever they think or say, whatever their family background.

Article 13: (freedom of expression) Every child must be free to express their thoughts and opinions and to access all kinds of information, as long as it is within the law.

Article 28: (right to education) Every child has the right to an education. Primary education must be free and different forms of secondary education must be available to every child.

Article 29: (goals of education) Education must develop every child's personality, talents and abilities to the full. It must encourage the child's respect for human rights, as well as respect for their parents, their own and other cultures, and the environment.

## MATHEMATICS POLICY STATEMENT

The purpose of teaching mathematics at Chad Vale, is to develop a sense of enjoyment and curiosity around mathematics whilst enabling each pupil to develop the essential mathematical skills and understanding required for later life. Teachers use the age-related expectations from The National Curriculum 2014 to plan lessons which are knowledge rich, support the transfer of skills and inspire children to reach their full potential as they deepen their understanding during their learning journey from Reception to Year 6.

## White Rose Maths Framework (WRM)



At Chad Vale, we endeavour to guide our pupils into becoming competent and confident mathematicians.

The National Curriculum for Mathematics explains what must be taught in each year group and includes age-related expectations. Chad Vale uses The White Rose Maths (WRM) to guide and support teachers with their planning. WRM is a framework with materials to support the teaching of mastery. As a framework, it is used for guidance; teachers should adapt lessons and pupil work based on the needs of their children.

Long-term plans for each year group identify the unit of mathematics covered in The National Curriculum and when these are taught over the course of the academic year. WRM produce an overview for each unit of work including the objectives that will be taught. These are broken down into small-steps and include the previous year's objectives in order to fill gaps in learning as a result of COVID-19 and subsequent lockdowns.

At the heart of WRM is the concept of *Concrete – Pictorial – Abstract*. From Reception, children are encouraged to learn a new skill by using *concrete* materials before moving through to *pictorial* and *abstract* representations; this is encouraged in each year group if and when required.

Pupils are firstly set work which will help them achieve the lesson objective before moving onto *varied fluency*, *reasoning* and *problem-solving* activities. Whilst WRM suggests ways in which teachers might challenge children at each stage, it is for guidance only and teachers have the flexibility to use other resources or activities to challenge and deepen pupil understanding. Teachers should be aware of the needs of their pupils and plan accordingly.

### **In Summary - Why do we use WRM?**

In summary, WRM is used for the following reasons:

- it includes a framework which ensures a full coverage of mathematical concepts and a breadth of study
- content is reviewed throughout the year
- guides teachers with their planning whilst providing the flexibility for teachers to use other resources e.g. *classroom secrets*
- children regularly revisit previous learning
- units of work and materials are regularly reviewed / adapted
- supports learning at home in the event of a lockdown
- objectives are linked to the previous year's objectives in order to close gaps in learning as a result of lockdowns during the COVID-19 pandemic
- **all** pupils have the opportunity to deepen their understanding of mathematics
- children enjoy the challenge of moving onto 'the next step'
- published resources reduce teacher workload

### **Planning**



During a maths lesson, teachers are encouraged to use Powerpoints produced by WRM and/or ITPs such as RM Easi-teach or SMART Notebook to impart knowledge and skills which will allow pupils to achieve the lesson objective and make progress. Chad Vale Primary School recognises that planning is personal to teachers and so detailed ITPs which include key questions and/or methodology may serve the purpose of planning themselves. Teachers are encouraged to share resources and so all planning is saved on the school server making them accessible to all.

At Chad Vale we recognise that some children are more confident in different areas of mathematics. Whilst children are grouped in a classroom, these should remain fluid to ensure children are adequately challenged. In certain situations, it might be appropriate for children to work on a particular task to consolidate what they have learned, however pupils should also be given the opportunity to deepen or apply their understanding through *varied fluency* or *reasoning and problem-solving* activities. **Work should therefore not be differentiated by group but by task or outcome.**

### **Mathematics Lessons**

Lessons should be used to enthuse and inspire pupils and for this reason teachers have the flexibility to vary lesson delivery and structure in order to meet the lesson objective. Lessons which are practical and enthuse children are highly encouraged as they give children a taste of mathematics in the real world. Books are not the only way that children learn and should not be solely relied upon.

There are some 'non-negotiables' which include:

- W.A.L.T and Steps to Success identified at the earliest opportunity of a lesson.
- The W.A.L.T and *Steps to Success* should be stuck in books when they are used in a lesson.
- Books and work should be neat, well presented and kept to a high standard at all times. Children should be trained and regularly reminded about how to do this.
- *Varied Fluency / Reasoning and Problem Solving* activities should be identified in books.
- *Maths Marking Sheets* should be used at the end of the lesson (see *Marking Policy*)
- Gaps in previous learning should be addressed through a Gap Task at the beginning of each lesson, using a purple polishing pen, or at the beginning of the next unit of work (see the *Marking Policy*).

As part of *varied fluency*, other strategies for place value or calculation may be employed to deepen pupil understanding, however the Calculation Policy should always be followed and teachers should not select their own preferred technique to teach the four operations. This is to ensure consistency across the school and prevent pupil misunderstandings.

At Chad Vale Primary School we recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. Copies of our calculation policies are available to parents on the school website.



## Teaching Methods / Approaches

The teaching of maths at Chad Vale Primary provides opportunities for:

- Group work
- Paired work
- Whole class teaching
- Individual work

Pupils engage in:

- The development of mental strategies
- Written methods
- Practical work
- Investigational work
- Problem- solving
- Mathematical discussion
- Consolidation of basic skills and routines

## Mathematics in EYFS

In September 2021, the revised Early Year Framework was introduced. Whilst the Early Years Outcomes remain the same, the Early Learning Goals for *Number and Shape, Space and Measure* have changed. WRM supports the teaching of mathematics in the Early Years including the use of concrete methods to support pupil understanding.

In Reception, children primarily learn through play but have maths lessons where they are taught 1:1 or small groups, depending on their needs and abilities. Children are encouraged to gradually develop their independence so that they are ready for the National Curriculum in Year One. To support young pupils as they move to a more formalised way of learning, there is a transition period which includes more play-based learning at the beginning of Year One; its length depends on the class / cohort and the needs of the children.

## Baseline Assessment

The reception baseline assessment (RBA) will be compulsory from September 2021. From a mathematics standpoint, it is used to form a picture of a child's mathematical knowledge and understanding upon entry into Reception. As KS1 assessments are eventually removed in 2024, it will eventually be used as a progress measure for when children reach the end of Year 6. Schools are only provided with a small snapshot of how children performed on the day and therefore conduct a further assessment to identify a pupil's starting point and next steps in relation to the early learning goals.

## Mathematics Displays

Displays have an important role in the teaching and learning of mathematics. Every class should have a *Maths Wall* which might be used in two ways. In the first instance, it should be used to support children with their current or recent learning - a *Working Wall*. Alternatively,



it might be used to celebrate pupils work in the form of a display which is known to boost pupil engagement and self-esteem.

### **Cross Curricular Links**

Mathematics is primarily taught as a separate subject but every effort is made to link maths with other areas of the curriculum. Staff highlight these links so that children see that maths is not an isolated subject but always around us.

### **Assessment**

Formative and summative assessments are used to measure pupil progress and inform future planning.

Whilst formative assessment is gathered from work children have covered in books, pupil interactions or teacher observations, summative assessments are taken in the form of PUMA tests which are used to measure pupil attainment against National Curriculum objectives.

Test data and teacher judgements are recorded using *Educater*, an online assessment tool which measures attainment and pupil progress against the age-related expectations (A.R.E). This allows SLT and the Maths Leader to monitor mathematics and helps teachers to track pupils' strengths, identify areas for development and inform future planning. Teachers should update *Educater* on a regular basis as they move through each unit of work.

### **REPORTING**

In the autumn term and spring term, *Parents' Evening* give parents the opportunity to meet their child's teacher and discuss progress; due to the COVID-19 pandemic, these are now conducted online. A weekly Curriculum Newsletter, *twitter* and *Marvellous Me* are various ways in which Chad Vale shares information about learning with parents. At the end of each academic year, an annual report is published for parents which includes a summary of their child's effort and progress in mathematics over the year.

### **MONITORING/ EVALUATION**

The Mathematics Leader will monitor the following of the Mathematics Policy, teacher planning, teaching and learning and provide support where necessary after discussion with TLR / SLT.

Continuous monitoring of Mathematics provision takes place throughout the year in the following ways:

- lesson observations
- book trawls
- learning walks
- team teaching



- lesson Study

The Mathematics Leader will monitor whole school progress and attainment data using *Educater* and discuss with SLT areas of concern and where support might need to be employed.

A report on standards and progress against areas of development is written for Governors annually and data analysis completed termly.

### **Inclusion and Equal Opportunities**

As a staff we endeavour to maintain an awareness of, and to provide for equal opportunities for all our pupils in mathematics. We aim to take into account cultural background, gender and Special Needs, both in our teaching attitudes and in the published materials we use with our pupils.

Wherever possible we aim to fully include SEN pupils in the daily mathematics lesson so that they benefit from the emphasis on oral and mental work and by listening and participating with other children in demonstrating and explaining their methods.

Where necessary, teachers draw up targets in relation to a child's needs. If a child's needs are particularly severe they will work on an individualised programme written in consultation with the appropriate staff. When planning teachers will try to address the child's needs through simplified or modified tasks or the use of support staff.

Policy agreed on: .....

Chair of Governors: .....