WESTERN DOWNLAND C. of E. (V.A.) PRIMARY SCHOOL In partnership with parents we aim to provide:

'The roots to grow and the wings to fly'



Maths Policy

Western Downland CE (VA) Primary School

Reviewed Next Review March 2022 March 2024

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POLICIES AND PROCEDURES PROFORMA

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Author:	Jackie Miller		
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Amendments Summary:

Amend No	Issued	Page	Subject

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Mathematics Policy

1. **AIMS**

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. It also provides the materials and means for creating new imaginative worlds to explore.

We believe that children who understand and are successful in mathematics will have significantly enhanced opportunities and options for shaping their future.

Using the Programmes of Study from the National Curriculum 2014 and the Statutory Framework for the Early Years Foundation Stage (2021), we aim to foster different skills and attitudes:

- a positive attitude towards mathematics and an awareness of the fascination of mathematics
- fluency, competence and confidence in mathematical knowledge, concepts and skills
- confidence and speed when calculating mentally
- to be able to reason, justify and check

• an ability to solve problems: to reason, to think logically and to work systematically and accurately.

- to use initiative and an ability to work both independently and in cooperation with others
- an ability to communicate mathematics
- an ability to use and apply mathematics across the curriculum and in real life
- an understanding of mathematics through a process of enquiry and experiment

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2. STATUTORY REQUIREMENTS

Foundation Stage

Statutory Framework for the Early Years Foundation Stage (March 2014, updated September 2021)

Key Stage 1 and 2:

Statutory requirements for the teaching and learning of Mathematics National Curriculum 2014

3. THE GOVERNING BODY

Regular reports are made to the Governors on the progress of mathematics provision through meetings with our Mathematics Governor and Maths Manager.

3. SUBJECT ORGANISATION

At Key Stage 1 and 2, the Mathematics Curriculum is delivered using the National Curriculum as guidance. In Year R, the Early learning Goals are followed to ensure continuity and progression from the Foundation Stage through to the Key Stage 1.

Mental oral work plays an important role in children's skills. Teachers plan weekly to ensure a mental oral starter takes place during the maths lesson every day.

Each class teacher plans using an enquiry organiser which uses The White Rose Scheme of work as a core. These organisers include prior knowledge which should be in place, possible misconceptions which may be encountered and examples of the expectation of the National Curriculum.

At the beginning of each unit, children are assessed. Pupil provision is then related to attainment with focused teaching to allow them to meet age-related expectations. Clear objectives are set for each session and are shared with pupils. They work towards independent learning and plan for different working groups: whole class/small group/ paired/individual.

On introducing a new concept, teachers may use an anchor task to develop reasoning skills. Children may work in mixed ability groups to discuss their understanding of the new concept. Alongside this we use the CPA approach to the introduction of new concept: concrete representations, followed by a pictorial representation moving on to the abstract written recording when children are ready.

A balance of fluency, reasoning and problem solving is taught throughout a unit of work.

Weekly number skills sessions are used to recap on numbers skills previously taught.

Teachers employ a range of generic teaching strategies based on principles underpinning mathematics teaching:

- 4. Instruction/direction- using the correct mathematical vocabulary
- 5. Modelling/demonstrating/scribing- concrete, pictorial and abstract.
- 6. Explaining
- 7. Questioning- What is the same or different? Which is the odd one out? Can you spot the error?
- 8. Discussing-
- 9. Consolidating- repetition of number facts over time in number lessons or mental/ oral sessions.
- 10. Evaluating
- 11. Summarising

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4 Foundation Stage

The areas of learning and development

ELG: Number Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;

- Subitise (recognise quantities without counting) up to 5;

- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

ELG: Numerical Patterns Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system;

- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;

- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

5. BREADTH OF STUDY

Through careful planning and preparation, we aim to ensure that, throughout the school, children are given a variety of opportunities:

- practical activities and mathematical games
- problem solving
- individual, group and whole class discussions and activities
- open and closed tasks
- a range of methods of calculating eg. mental, jottings and formal calculations.
- working with computers as a mathematical tool: TTRS, Excel.

6. PARENTAL/COMMUNITY INVOLVEMENT

We value parent/carers involvement in children's development of numeracy and promote a home school partnership in many ways:

- sharing information Key recall facts, A Guide to Calculation, Routes to Roots.
- celebrations assemblies, school performances, displays, book fairs;
- home learning in line with our homework policy and home/school agreement.

• using parent workshops as a way of supporting parents in understanding school policy on teaching calculations.

7. MONITORING AND EVALUATION

The teaching and learning of mathematics is monitored by the Mathematics Manager and all class teachers. Having identified priorities, the Mathematics Manager constructs an action plan that forms part of the School Development Plan. This forms the basis for any monitoring activities and will clearly identify when, who and what is to be monitored and how this will take place e.g. classroom observation, planning scrutiny, work sampling etc.

8. ASSESSMENT, RECORDING AND REPORTING

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Assessments are made in line with the school assessment policy. Teachers report to parents twice a year at parents' evenings and in the annual report to parents.

Children are assessed on entering the school and are formally assessed at the end of the Foundation Stage and each Key Stage.

Insight is used to track progress. This is completed termly.

Each term, children will carry out a summative assessment- using NFER assessments. Children who are working below the expected standard will be assessed using Sandwell maths assessment tool.

Teachers use assessment for learning to ensure planning is based on prior attainment. In each phase of a unit of work, teacher's assess children's understanding of concepts to be covered and plan accordingly so that children progress.

Group or individual targets are set accordingly. Marking is in line with the school marking and feedback policy.

Teacher's keeps individual records and these include information that enables the teacher to deliver an effective, relevant curriculum which builds on prior attainment and meets the needs of pupils.

9. STAFF DEVELOPMENT

The Mathematics Manager and all class teachers are expected to keep up to date with subject knowledge and use current materials that are available in school or on the Standards website. Training needs are identified as a result of whole school monitoring and evaluation, performance management and through induction programmes. These will be reflected in the School Improvement Plan which includes the Mathematics Action Plan.

10. RESOURCES

Each classroom has designated sets of resources, which are labelled, to support children in their understanding of mathematics including number lines, dice, money, base 10 equipment. These resources are accessible to children at all times and children are encouraged to use them when needed.

Additional resources are found in the stores at each site as well as publications to support teachers with their planning.

12. INCLUSION

We aim to provide opportunities for all children so that they achieve as highly as they can in Mathematics according to their individual abilities. Children who are exceeding expectations will be identified and suitable learning challenges provided. We will identify which pupils or groups of pupils are under-achieving and take steps to improve their attainment through intervention programmes: Success@ Arithmetic or pre-teaching to develop confidence.

Additional adults are used to support the teaching of mathematics. They work under the guidance of the teacher with small groups of children or individuals. Where identified, some pupils may require targeted support to enable them to work to age appropriate objectives. The teacher, liaising with the Maths Manager and TA, will suggest a programme of intervention to support their needs. The needs of children with English as an additional language will be met through planning and support. This is supported by our Equal Opportunities Policy.

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12. EQUAL OPPORTUNITIES

All children are provided with equal access to the mathematics curriculum. We aim to provide suitable learning opportunities regardless of gender, ethnicity or home background.

This policy should be read in conjunction with the following school policies: Teaching and Learning Policy Assessment and Record Keeping Responding to pupils' work / Feedback / Marking policy Special Educational Needs Policy ICT Policy Equal Opportunities Policy Health and Safety Policy

Member of staff responsible: Jackie Miller Date policy updated: March 2022 Date to be reviewed: March 2024