Ludgershall Castle Primary School

Maths Policy

2024

Maths at Ludgershall Castle Primary School - 2024

Our Intent

At Ludgershall Castle Primary School we aim to provide the pupils with a maths curriculum which will produce individuals who are numerate, creative, independent, inquisitive, enquiring & confident. We also aim to provide a stimulating environment and adequate resources so that pupils can develop their mathematical skills to their full potential.

Our pupils should:

- ✓ Have a sense of the size of a number and where it fits into the number system
- ✓ Know by heart number facts such as number bonds, multiplication tables, doubles & halves
- ✓ Use what they know by heart to figure out numbers mentally
- ✓ Calculate accurately & efficiently, both mentally & in writing, drawing on a range of calculation strategies (see calculation policy)
- ✓ Know, understand and apply the use of mathematical symbols
- ✓ Make sense of number problems, including non-routine problems and recognise the operations needed to solve them
- ✓ Explain their methods & reasoning using correct mathematical terms and a range of stem sentences
- ✓ Judge whether their answers are reasonable and have strategies for checking them where necessary
- ✓ Suggest suitable units for measuring & make sensible estimates of measurements
- ✓ Explain & make predictions from the numbers in graphs, diagrams, charts & tables
- ✓ Develop spatial awareness and an understanding of the properties of 2D & 3D shapes

Our Implementation

The programme of study as detailed in the National Curriculum is delivered in a range of teaching strategies as listed below:

- Maths is taught every day in all classes across the school.
- Progression of skills in Maths is ensured through the use of learning ladders for each year group based on the maths framework from the National Curriculum. The objectives on the ladder are met in the order of the small steps set out in the White Rose Scheme of Learning. This forms the basis of planning and assessment.
- Teachers plan lessons using the White Rose small steps with high expectations at their core, and adapt activities to meet the needs of all children in their class

• Children are provided with opportunities for tasks where they engage in:

- ✓ the development of mental strategies
- ✓ written methods
- ✓ practical work
- ✓ investigational work
- ✓ problem solving
- ✓ mathematical discussion
- ✓ consolidation of basic skills & number facts at an appropriate level for the individual.

<u>Teaching Methods</u>

- As part of the daily Maths learning, all lessons begin with a 'Flashback' set of questions to consolidate previous learning from the last lesson, a lesson from the previous week, and topics from earlier in the year or previous year.
- To assist with number fact recollection teachers in EYFS, Years 1 and 2have been enrolled on the Mastery in Number project. This project aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 1 and Year 2. The aim over time is that children will leave KS1 with fluency in calculation and a confidence and flexibility with number. Attention will be given to key knowledge and understanding needed in Reception classes, and progression through KS1 to support success in the future. This carried out 4 times a week in 10 – 15 minute sessions. This scheme (NCETM) is then used in KS2 as an intervention for any children who have not yet mastered instant recall of number facts.
- Children in KS2 receive daily teaching of multiplication facts. We use the Number Sense times tables fluency programme which builds fluency in multiplication and division facts and an understanding of multiplicative relationships.

At the core of the programme are 36 essential times table facts. The programme focuses on developing understanding and recall of these 36 facts, and on using them to know the commutative multiplication facts up to 9 x 9 and the inverse division facts. Later in the programme, in preparation for the Year 4 Multiplication Tables Check, the 11 and 12 times tables are also taught in a lighter touch way, as well as practice of the 10 times table

- To allow children the opportunity to have an investigative approach to the concepts underpinning the maths taught, teachers ensure that each new concept is approached using a concrete, pictorial, abstract method. This approach is supported through following the small steps of progression detailed in the White Rose scheme for learning. Teachers ensure that the use of manipulatives is available to all until the children have a good understanding of the concept. This is then supported by the use of pictorial representations and finally when an understanding is established children are encouraged to answer abstract problems.
- To assist with explaining reasoning all teachers model and encourage the use of stem sentences in their daily teaching. Sentence starter reminders are displayed in each classroom to ask as prompts for children to vocalise their mathematical thinking and reasoning when problem solving.

Assessment and Targets

At Ludgershall Castle Primary School assessment is an integral part of teaching & learning. We strive to make our assessment purposeful, allowing us to meet the individual needs and to ensure progress by all pupils. Planning should be adjusted where necessary to include challenge and support.

- All children are assessed against their year group's Learning Ladder with clear targets appropriate to their attainment taken from the National Curriculum.
- Formal assessments take place at the end of each block taught in the White Rose Scheme of Learning and at the end of each term, three times a year.
- The results of the termly assessments are collated and reviewed by the Maths subject leads.
- The progression children are making towards the objectives on their learning ladders is formally recorded in October, February and June.
- Pupil Progress meetings follow each data collection to carefully monitor progress.
- Any child not making progress at these key points in the year are discussed, the barriers identified and appropriate interventions are put in place.

Impact

By the end of Year 6 we aim for pupils to be able to calculate using efficient written methods in order to access their future curriculum. To this end, we provide a structured and systematic

approach teaching number and calculations, ensuring continuity and progression across the school.

For our calculation policy we have adopted the White Rose policy for addition and subtraction and multiplication and division calculations.

Policy reviewed: October 2024

Agreed by Governors: October 2024