



Mathematics Policy

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Curriculum Intent Statement:

'A Family Committed to Making a Difference'

At Friezland Primary School we aim to develop well-rounded, resilient individuals who demonstrate mutual respect and tolerance and who have a positive impact on their community and the wider world. Our Curriculum is designed with this in mind. We aim to encourage a life-long love of learning and develop skills for life through the delivery of exciting, challenging and stimulating experiences within and beyond the classroom.

We understand that mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. We aim to deliver a high-quality mathematics education which provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. Emphasis on this starts in Reception and continues right the way through to Year 6.

Aims of the Mathematics Curriculum:

The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

(National Curriculum 2014)

This policy should be read in conjunction with Friezland's Calculation Policy and the How We Teach Times Tables document which shows the progression children need to move through in order to become efficient mathematicians. The policy shows the methods used to develop the required skills in order to, ultimately work abstractly with number.

Teaching & Learning

Mathematics is taught mainly as a separate subject, however, every effort is made to link it with other areas of the curriculum, where pupils are given the opportunity to apply mathematical skills and knowledge so that they can see it is not an isolated subject.

At Friezland, mathematics is taught every day in the Early Years Foundation Stage (EYFS) Key Stages 1 (Years 1 and 2) and Key Stages 2 (Year 3 - 6). Teaching consists of quality first teaching strategies, where teachers model the use of practical, pictorial or formal written strategies, in an age appropriate way. A strong emphasis is placed on the use of concrete resources as we believe they are essential for introducing a concept and allowing children to build on their understanding.

In the Early Years Foundation Stage (EYFS), children learn the foundations of mathematics through Playing and Exploring, Active Learning, and Creating and Thinking Critically supports children's learning across all areas.

EYFS Mathematics is split into two main areas:

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.

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.

Key Stages 1 and 2 Mathematics is delivered through the following areas:

- Place Value
- Addition and Subtraction
- Multiplication and Division
- Fractions
- Measures
- Geometry and Statistics

- Algebra and ratio and proportion are taught in Year 6.

At Friezland, each stage of learning follows carefully selected programs. For example, In EYFS, teaching fits the coverage of the Development Matters (which isn't statutory) and the Early Learning Goals. The Mastering Number programme which aims to secure firm foundations in the development of 'Number' from Reception through to Year 1 and 2, is used as an intervention for those children who have been identified as needing to strengthen their sense of number in order to transition securely into Year 1 and Year 2.

Mastering Number consists of 4 short sessions per week which last around 10-15 mins each. It teaches children number and calculation through pictorial and concrete representations. It also uses clips from the TV show, Numberblocks which makes it engaging for the children. The Rekenrek is one of the concrete pieces of apparatus that is used throughout the programme to support and deepen children's understanding. This fits the coverage of Development Matters and the Early Learning Goals across the year.

In Key Stage 1, teaching follows the Primary Stars Curriculum. This mastery scheme encourages a deeper understanding of the concepts taught, following a CPA approach (concrete, pictorial, abstract). The Mastering Number program is also taught discretely to children in Year 1.

Across Key Stage 2, teaching uses the 'Focus' whole-school primary maths curriculum which ensures clarity and direction for teaching and continuity and progression in learning. At Friezland, we have adapted the Focus syllabus so that the weekly objectives for each year group are aligned wherever possible. These adaptations can be viewed on each Class's Long Term Planning document.

The Focus curriculum uses the following structure:

- 1) **Pre-Learning Tasks:** For each unit, a pre-learning task is provided which are used with all, a few or individual pupils. This ensures teachers are aware of the starting point for each pupil. Teachers may carry out other tasks to assess prior knowledge.
- 2) **Practice and Consolidation:** Teachers provide pupils with a range of activities, concrete and abstract, which help pupils practice a skill or strategy to meet the objective.
- 3) **Mastery:** These are additional activities which ensure that mastery or deeper understanding is being established.
- 4) **Greater Depth:** There is a range of types of problems, including: logical thinking problems; problems requiring different starting points; problems with more than one solution; problems with missing information; and evaluating a problem in context.

Teachers provide children with a variety of activities to practice and apply their mathematics skills and to support, enhance, stretch, extend and deepen learning. Target Maths and Dive Into Mastery questions are regularly used in Key Stage 2 alongside the Focus syllabus.

At Friezland, pupils are encouraged to answer, prove and explain their understanding wherever possible (APE) and this is modelled to them by the teacher; whether it be through using concrete resources, informal jottings, formal written methods and written or oral explanations. Pupils are also taught to self-check, evaluate and revise their work (Make A Difference – MAD) in response to feedback, using a green pen.

The Role of the Mathematics Leader

The Maths lead will collaboratively alongside the headteacher, governors and whole staff:

- to help monitor and evaluate pupil learning and the implementation of the policy and National Curriculum objectives, giving feedback and discussing next steps as appropriate
- to keep up-to-date with current views in terms of mathematics practice via training, disseminating this to colleagues via INSET/discussion
- to demonstrate good practice within own class teaching
- to be responsible for the purchase and organisation of resources within budgetary constraints
- to report to Governors about what Maths ‘looks like’ at Friezland and current standards within the subject.

Assessment

It is the responsibility of the class teacher to assess pupils within the class. Pupils’ work is assessed on an ongoing formative basis through feedback and marking, and teachers use a range of evidence to inform their judgements. We aim to make assessment purposeful, allowing us to match teaching activities to the needs of the pupils to ensure progress. Information for assessment will be gathered in various forms:

- by talking to pupils
- by observation and marking work (including live marking during the lesson)
- by short assessments at the end of a unit of work/half term
- by informal checks e.g. rapid recall of number facts and providing opportunities for application
- by use of baseline assessment (pre-learning tasks)
- by checking against end of year objectives outlined in the national curriculum.
- By termly NFER assessments in reasoning and arithmetic (Y2-5)
- by SATs at the end of Key Stage 1 and 2

We teach children to assess their own progress as mathematicians, as well as their understanding of individual concepts and encourage them to consider their next steps.

Termly staff meetings enable teachers to share and review good practice. ‘Book Looks’ also ensure that standards across all year groups can be moderated. In addition, teachers also attend moderation sessions with colleagues across the borough through DLP and LA moderation sessions, to ensure judgements are accurate.

Equal Opportunities

Provision is made for all pupils regardless of ability, disability, special Educational need, medical condition, gender, faith or ethnicity and reasonable adjustments are made in a range of ways. All children have a right to be treated equally and the school will take measures against those who do not abide by this ethos. We aim to set goals which are challenging but realistic, with an aim to provide opportunities for pupils to work at greater depth in order to embed their knowledge skills and understanding.

Monitoring & Evaluating

Policy and practice is monitored and evaluated on a regular basis in accordance with the school development planning cycle. The provision will be monitored by the subject co-ordinator in conjunction with the Headteacher and Governing Board. Monitoring may take the form of learning walks, lesson observations, data analysis, planning or book looks. Feedback will be given to all staff along with recommendations to inform future policy, planning and practice. Professional development of the coordinator will be maintained to ensure that new initiatives and curriculum updates are fed back to staff and incorporated into regular practice.

Data Protection Statement

The procedures and practice created by this policy have been reviewed in the light of our Data Protection Policy. All data will be handled in accordance with the school’s Data Protection Policy.

Data Audit for the Mathematic Policy					
What?	Probable Content	Why?	Who?	Where?	When?
Pupil assessment data	Name D.O.B. Test data TA/ test data	Monitor a child’s progress and identify next steps Well-Being of Your Child	All Staff (as necessary)	Staff electronic records Paper tests are stored in locked filing cabinets in each classroom / basement Data is deleted / shredded as necessary	Held on File throughout a child’s time at school Key data is passed onto a new School when moving on Some data is archived until the child is 25 (e.g. SEND pupil)

As such, our assessment is that this policy:

Has Few / No Data Compliance Requirements	Has A Moderate Level of Data Compliance Requirements	Has a High Level of Data Compliance Requirements
	✓	

This policy will be reviewed every three years or sooner if legislation / school assessment systems change.