



Maths Policy

Last Updated September 2021

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Statement of intent

Firs Primary School recognises that maths is both a key skill within school, and a life skill to be utilised through everyday experiences. A high-quality maths education provides a firm foundation for understanding how maths is used in everyday life and activities, developing pupils' ability to reason mathematically.

At Firs we want our children to:

- ✓ Show enjoyment and feel excited whilst being immersed in their learning of mathematics.
- ✓ Have a positive attitude towards maths lessons and solving problems by acknowledging our FIRSY values: Fascinated, Independence, Respectful, Sociable and You Can Do It!
- ✓ Acquire a deep, long-term, secure and adaptable understanding of mathematics.
 - This will be done by providing all children with the same curriculum and opportunities and giving all children the chance to do fluency, problem solving and reasoning for every objective. Children who require additional help will be given speedy interventions to prevent long term gaps in their learning and to enable them to keep up with their peers.
 - All children will be given the same opportunities by completing the same task which will be differentiated by support and resources where applicable rather than by task.
- ✓ Be continually challenged in their thinking and acknowledging the need for some to gain a greater depth of proficiency and understanding.
 - This is done by assessing children at the start of the lesson (pre-task) to ensure they are given the correct task and moved on from fluency, to problem solving and reasoning (mastery glasses) before moving on to the further challenge. The further challenge will provide rich and sophisticated problems within the topic.
- ✓ Become confident mathematicians, which allows them to, upon leaving Firs, apply their learning in everyday life, contribute to being a positive member of society, and continue to be successful in secondary school.

Signed by:

_____ Headteacher Date: _____

_____ Chair of governors Date: _____

1. Legal framework

1.1. This policy has due regard to statutory guidance including, but not limited to, the following:

- DfE (2013) 'National curriculum in England: Mathematics programmes of study'
- DfE (2017) 'Statutory framework for the early years foundation stage'

2. Roles and responsibilities

2.1. The STEM team are responsible for:

- Preparing policy documents.
- Researching and implanting schemes of work for the subject.
- Reviewing changes to the national curriculum and advising on their implementation.
- Monitoring the learning and teaching of maths, providing support for staff where necessary.
- Using schemes of work to check and monitor for continuity and progression from year group to year group.
- Helping to develop colleagues' expertise in the subject when planning their lessons.
- Organising the deployment of resources and carrying out audits of all maths-related resources.
- Using the scheme of work and published documents to ensure we have suitable maths resources in school.
- Liaising with teachers across all phases.
- Communicating developments in the subject to all teaching staff.
- Leading staff meetings and providing staff members with the appropriate training.
- Organising, providing and monitoring CPD opportunities in the subject.
- Setting new priorities for the development of maths in subsequent years.

2.2. The classroom teacher is responsible for:

- Acting in accordance with this policy.

- Ensuring progression of pupils' mathematical skills, with due regard to the national curriculum.
- Planning lessons effectively, ensuring a range of teaching methods are used to cover the content of the national curriculum.
- Liaising with the STEM team about key topics, resources and support for individual pupils.
- Monitoring the progress of pupils in their class and reporting this on an annual basis to parents.
- Reporting any concerns regarding the teaching of the subject to the STEM team or a member of the senior leadership team (SLT).
- Undertaking any training that is necessary in order to effectively teach the subject.

2.3. The special educational needs coordinator (SENCO) is responsible for:

- Liaising with the subject leader in order to implement and develop maths throughout the school.
- Organising and providing training for staff regarding the maths curriculum for pupils with special educational needs and disabilities (SEND).
- Advising staff how best to support pupils' needs.
- Advising staff on the inclusion of mathematical objectives in pupils' Individual Provision Map (IPM) and Multi-Element Plan (MEP).
- Advising staff on the use of teaching assistants in order to meet pupils' needs.

3. Early years provision

3.1. Activities and experiences for pupils will be based on the seven areas of learning and development, as outlined in the DfE's 'Statutory framework for the early years foundation stage'.

3.2. Provision for early years pupils focusses on four specific areas:

- Literacy
- Maths
- Understanding the world
- Expressive arts and design

3.3. Through teaching and continue provision, children will have the opportunity to develop and improve their skills in counting, understanding and using

numbers, calculating simple addition and subtraction problems, and describing shapes, spaces and measurements.

- 3.4. All activities will adhere to the objectives set out in the framework and use White Rose Maths methods of teaching.

4. Cross-curricular links

- 4.1. Wherever possible, the maths curriculum will provide opportunities to establish links with other curriculum areas.

4.2. **Science**

- Pupils' data collection and analysis skills are further developed through the conduction of physical experiments, using units of measurement, calculating averages and interpreting results.
- Pupils record their finding using charts, tables and graphs.

4.3. **Humanities**

- Pupils' understanding of time and measurements of time are developed through discussions of historical events.

4.4. **Computing**

- ICT will be used to enhance pupils' maths skills through the use of online resources and the creation of spreadsheets.
- ICT will be used to record findings, using text, data and tables.

5. Teaching and learning

- 5.1. Pupils will undertake independent work, and have the opportunity to work in groups and discuss work with fellow classmates.
- 5.2. Lessons will be planned to ensure that Assessment for Learning (AFL) can be used continually to move children's learning on and continue to challenge their knowledge and understanding.
- 5.3. All children will have the opportunity in lessons to complete 'Fluency' tasks to practise their new learning and 'Problem Solving and Reasoning' to apply what they have learnt. Pupils may also complete a 'Further Challenge' to apply their learning in a new and unusual context.
- 5.4. The classroom teacher, in collaboration with the STEM Team, will ensure that the needs of all pupils are met by:
- Deploying adults effectively to support pupils and give verbal feedback in accordance with the Marking and Feedback policy
 - Using resources (practical or pictorial) that pupils can use to support their learning

- Use the 'Pre-task' and the prior lesson (if applicable) effectively to assess pupils prior understanding
 - Providing resources of differing complexity, according to the ability of the pupils.
- 5.5. A maths mastery approach is taken to the curriculum, in which fluency comes from deep knowledge and practice. This means that structured questioning is used to ensure that pupils develop fluent technical proficiency and think deeply about the underpinning mathematical concepts.
- 5.6. Focus is put on the development of deep structural knowledge and the ability to make connections, with the aim of ensuring that what is learnt is sustained over time.

6. Planning

- 6.1. All relevant staff members are briefed on the school's planning procedures as part of their staff training.
- 6.2. Throughout Firs Primary School, maths is taught as a discrete lesson and as part of cross-curricular themes when appropriate.
- 6.3. Teachers will use the key learning content in the DfE's statutory guidance 'National curriculum in England: mathematics programmes of study', published in 2014.
- 6.4. Lesson plans will demonstrate a balance of interactive and independent elements used in teaching, ensuring that all pupils engage with their learning.
- 6.5. Teachers will ensure that mental calculation is practised regularly within and outside of maths lessons.
- 6.6. Long-term planning will be used to outline the units to be taught within each year group.
- 6.7. Short-term plans will identify learning objectives, main learning activities and vocabulary.
- 6.8. Short-term planning will be used flexibly to reflect the objectives of the lesson, the success criteria and the aims of the next lesson, in response to assessment for learning (afL).
- 6.9. In mixed year groups, the guidance document will be used to link together similar learning objectives and discrete learning objectives across year groups.
- 6.10. Short-term plans will be available for the STEM team to monitor.
- 6.11. Short-term planning is the responsibility of the teacher. This is achieved by building on the long term planning, taking into account pupils' needs and identifying the appropriate methods and resources needed to teach the objective.

- 6.12. All lessons will have clear learning objectives, which are shared and reviewed with pupils.
- 6.13. Home learning opportunities will be set for the children in accordance with the Home Learning Policy to build on that week's lesson objectives.
- 6.14. Home learning may take a variety of formats, including mental maths tasks, games, written task or online learning.

7. Assessment and reporting

- 7.1. Pupils will be assessed and their progression recorded in line with the school's assessment policy.
- 7.2. Pupils aged between two and three will be assessed in accordance with the 'Statutory framework for the early years foundation stage', in order to identify a pupil's strengths and identify areas where progress is less than expected.
- 7.3. The progress and development of pupils within the EYFS is assessed against the early learning goals outlined in the 'Statutory framework for the early years foundation stage'.
- 7.4. Assessment will be undertaken in various forms, including the following:
 - Talking to pupils and asking questions
 - Discussing pupils' work with them
 - Marking work against the learning objectives
 - Pupils' self-evaluation of their work
 - Classroom tests
- 7.5. Formative assessment (AFL), which is carried out informally throughout the year, enables teachers to identify pupils' understanding of subjects and inform their immediate lesson planning.
- 7.6. In terms of summative assessments, the results of end-of-year assessments will be passed to relevant members of staff, such as the pupil's future teacher, in order to demonstrate where pupils are at a given point in time.
- 7.7. Parents will be provided with a written report about their child's progress during the Summer term every year. These will include information on the pupil's attitude towards maths, understanding of mathematical terminology, investigatory skills and the knowledge levels they have achieved.
- 7.8. Verbal reports will be provided at parent-teacher afternoons/evenings during the Autumn and Spring terms.
- 7.9. The progress of pupils with SEND will be monitored by the SENCO.

8. Resources

- 8.1. The STEM team are responsible for the management and maintenance of maths resources.
- 8.2. Maths resources will be stored in each classroom. Specific resources to always be in each classroom have been outlined by the STEM team.
- 8.3. Resources which are not required regularly, and those in relation to key whole-school topics, will be stored in a central store.
- 8.4. Maths working walls will be utilised and updated regularly, in accordance with the area of maths being taught at the time.
- 8.5. Maths equipment and resources will be easily accessible to pupils during lessons.
- 8.6. The STEM team will undertake an audit of maths equipment and resources regularly.

9. Equal opportunities

- 9.1. All pupils will have equal access to the maths curriculum.
- 9.2. Gender, learning ability, physical ability, ethnicity, linguistic ability and/or cultural circumstances will not impede pupils from accessing all maths lessons.
- 9.3. Where it is inappropriate for a pupil to participate in a lesson because of reasons related to any of the factors outlined above, the lessons will be adapted to meet the pupil's needs and alternative arrangements involving extra support will be provided where necessary.
- 9.4. All efforts will be made to ensure that cultural and gender differences will be positively reflected in all lessons and teaching materials used.
- 9.5. Firs Primary school aims to provide more academically-able pupils with the opportunity to extend their mathematic thinking through extension activities such as problem solving, investigative work and research of a mathematic nature.

10. Monitoring and review

- 10.1. This policy will be reviewed on an annual basis by the STEM team.
- 10.2. The STEM team will monitor teaching and learning in the subject at Firs Primary School, ensuring that the content of the national curriculum is covered across all phases of pupils' education.
- 10.3. A member of the governing body is briefed to understand the teaching of maths throughout school.
- 10.4. Any changes made to this policy will be communicated to all teaching staff.