



# Maths Policy

Rewritten February 2019  
To be reviewed 2020

## **The National Curriculum (2014) states that:**

“Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history’s most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore 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.”

Following the introduction of the new National Curriculum in 2014 the emphasis has been to ensure that all children:

- Become FLUENT
- REASON, APPLY and EXPLAIN mathematically
- Can SOLVE PROBLEMS

This means that children need to be regularly exposed to opportunities involving increasingly complex problem solving which allows them to apply their Maths knowledge. In doing so they should be encouraged to develop an argument and line of enquiry which they can prove and justify using mathematical vocabulary. This includes the ability to break do problems, both routine and non-routine, into a series of steps.

### **Aims:**

- Deliver Maths in line with new National Curriculum guidelines
- Ensure the delivery of Maths is filled with cross curricular opportunities
- Create a lively, exciting and stimulating environment in which the children can learn mathematical skills.
- Promotes the concept that acquiring Maths knowledge and skills provides the foundation for understanding the world around the children
- Develop mental strategies
- Encourage children to use mathematical vocabulary to reason and explain
- Challenges children to stretch themselves and take risks in their learning

### **Implementation**

Francis Askew Primary School uses planning documents, which have been adapted by the Mathematics Leaders throughout the Constellation Trust, from The White Rose Maths Hub. These Constellation Trust planning documents ensure complete coverage of the National Curriculum.

Medium-Term Planning is documented, based on The White Rose Maths Hub materials, for each year group in a booklet. It is the responsibility of the class teacher to adapt planning to suit the children’s needs. Reasoning and problem solving is a focus for the school and wherever possible children are encouraged to apply their knowledge and skills in different situations.

Short-Term Planning identifies specific learning objectives for the week.

Special Needs children are identified on planning and may use appropriate learning objectives from previous year groups or those objectives identified on individual education plans. Intervention groups are used where appropriate and are discussed with the Mathematics Subject Leader before implementation.

Focus groups of children who are not making satisfactory progress either in class or in formal tests are monitored and catered for throughout each term. They are highlighted on planning and tracked using the

assessment folders.

## **Teaching and Learning**

Morning maths work is a non-negotiable daily activity and should be spent on developing arithmetic and fluency skills. A maths session of one hour daily is also a non-negotiable. Timings within the session are determined the class teacher and the needs of the pupils.

The school has a Calculation Policy, explaining the preferred methods of calculation where appropriate to the child.

Foundation Stage children work towards achieving the Early Learning Goals by the end of Foundation 2. Mathematical development in the Foundation Stage depends on becoming more confident and competent in learning and using key skills. Assessment is evidence by: observations, photographs and adult led activities. Children's progress is monitored by class teachers using the Ages and Stages tool and updated termly and sent to the Local Authority. At the end of Foundation 2, decisions are made to whether children are emerging, expected or exceeding in terms of the Early Learning Goal.

At Francis Askew we are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and endeavour to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring progress. At the start of each unit or work all pupils will stick objectives into their books so they are clear of what will be studied throughout the unit. Pupils will complete a pre-assessment to determine their current understanding of the objectives within the unit. Following this, a sequence of work matched to the children needs and demonstrates skills in fluency, reasoning and applying and problem solving. Post assessment will complete the unit of work to ensure expected progress has been made. Any gaps identified by the class teacher should be addressed immediately.

In order to inform planning and to assess children's progress, teachers will maintain an assessment grid which tracks the children's progress and understanding across a range of Key Performance Indicators (KPIs) This will be updated regularly, following the completion of a unit of work and informed by annotated plans and work in children's books. To achieve Age Related Expectation (ARE) pupils must have dated evidence of both an achieved fluency activity and a reasoning and applying activity for all of the KPIs. To achieve GDS pupils must show a solid, independent understanding of problem solving. This will be evidenced through at least 70% of the KPIs being achieved through the problem solving activities exemplified in the Constellation Trust (White Rose Maths Hub) planning documents and the NCETM Mastery document questions being achieved.

Formal assessments are carried out at the end of each term and upon The White Rose Hub or TestBase Progress or past SATS papers. See appendix 1 . The purpose of these assessments is to review and record the progress the pupils have made in relation to the KPIs. The class teacher is responsible for the ongoing assessment of all pupils within their class and entering the data on the class trackers. The Mathematics co-ordinator is responsible for comparing all children's attainment levels with national expectations and pupil progress. The majority of assessment is ongoing and informal, based on the objectives in short-term plan.

Although Year 6 SATs are summative, the main purpose of assessment is to inform future planning and determine individual needs.

## **Inclusion**

In line with the School's Inclusion Policy each child will have an equal entitlement to all aspects of the Maths curriculum and to experience the full range of Maths activities. Therefore, in delivering Maths, care will be taken to ensure that a variety of learning styles are accessed and teaching methods adopted.

Intervention groups will take place both within the Maths lesson and outside; these sessions may be delivered by the teacher or teaching assistant and may involve individual or small group work, accessing both ends of the learning spectrum.

## **Resources**

Main resources are kept in a central store with the exception of some which are regarded as useful apparatus to be kept in classrooms for day to day mathematics. A register of resources are available and class teachers are responsible for the resources within their classroom. The Maths Leader makes regular checks to ensure resources are being kept appropriately. Each classroom has a set of 'everyday' mathematical resources such as Numicon, base ten, Cuisenaire rods, place value arrow cards, double sided counters and many other age related concrete resources. Children should be encouraged to use whatever resources are available to them in the classroom and which they feel would be beneficial to help them when completing Maths work.

## **Marking**

Children will be provided with feedback either verbally or through written marking. Often, in order to clarify understanding of a concept, children will be set gap tasks, but not for every lesson; these should be completed by the children (in green pen or pencil if drawing) at the next earliest opportunity after the lesson. When marking work teachers should adhere to the school's Marking Policy.

Marking should be to the objective and as much as possible, marked with the child. Throughout the school marking will be appropriate to the child and in some cases, may be in an oral form.

## **Safety**

Teachers need to consider the safety implications of using some equipment, such as compasses and weights.

## **Displays**

Each classroom should have a display dedicated to Maths; this should be in the form of a working wall and exemplify the current unit of work being studied. The working wall needs to be updated regularly and include a range of teaching prompts, key questions and children's work. A calculation board should also display the age related written method for each operation.

## **Roles and Responsibilities**

Responsibility for ensuring that Mathematics is adequately covered within the curriculum; monitoring and evaluating the schemes of work; managing resources related to all areas of mathematics; providing CPD and producing and monitoring the policy document is the responsibility of the Mathematics Leader.

It is the class teacher's responsibility to ensure that the individual needs of the of the children are being met; the requirements of the National Curriculum are being fulfilled; planning and implementing a range of mathematical activities; recording achievement and progression; and management of classroom based resources. Where problems occur regarding mathematics, communication should be addressed initially to the Mathematics Subject Leader. If no resolution can be found the Head Teacher should be informed.

## Appendix 1 – Assessment Timetable

<b>Autumn Term</b>	
Year 6 – September (Baseline)	2016 PAPER
<b>Autumn Term – December</b>	
Year 1	-
Year 2	Previous year's SAT paper
Year 3	MATHS HUB End of term
Year 4	MATHS HUB End of term
Year 5	MATHS HUB End of term
Year 6	Past SATS Paper
<b>Spring Term – March</b>	
Year 1	-
Year 2	Past SATS Paper
Year 3	MATHS HUB End of term
Year 4	MATHS HUB End of term
Year 5	MATHS HUB End of term
Year 6	Past SATS Paper

<b>Summer Term – May</b>	
Year 2	STATUTORY SATs
Year 6	STATUTORY SATs
<b>Summer Term – June/July</b>	
Year 1	TESTBASE OPTIONAL SATS PAPER
Year 2	-
Year 3	TESTBASE OPTIONAL SATS PAPER
Year 4	TESTBASE OPTIONAL SATS PAPER
Year 5	TESTBASE OPTIONAL SATS PAPER