

# Whytemead Primary School

## Mathematics Policy



Completed by: J. Pascoe September 2017

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### **Intent**

Through the Maths curriculum, we will help children develop the skills and knowledge that will enable them to develop fluency, reasoning and problem solving skills. A good understanding of maths is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. We aim to create an environment where children enjoy working with numbers and thinking creatively; seeing the links between maths and their everyday lives.

**Our intention is;**

- To foster a positive attitude to mathematics as an interesting and attractive part of the curriculum.
- To develop the ability to think clearly and logically, with confidence, flexibility and independence of thought.
- To develop a deeper understanding of mathematics through a process of enquiry and investigation.
- To develop an understanding of the connectivity of patterns and relationships within mathematics.
- To develop the ability to apply knowledge, skills and ideas in real life contexts and become aware of the uses of mathematics in the wider world.
- To develop the ability to use mathematics as a means of communicating ideas.
- To develop an ability and inclination to work both alone and cooperatively to solve mathematical problems.

**Implementation;**

We use White Rose mixed age planning from Y1-6 to ensure appropriate coverage of mathematical skills.

**Fluency:** 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

In EYFS, children are immersed in a number of the week. This enables them to fully understand the 'three-ness' of 3. This is further developed by understanding 1:1 correspondence with counting, counting beyond 10, matching numbers of objects with the correct digit, beginning to add and subtract.

In Key Stage 1, children complete daily tasks to support their learning of number. Once a week, they take a quick quiz. (Planet Hopping)

In Key stage 2, children complete daily arithmetic tasks. In year 3-4, they take a weekly multiplication quiz. In year 5-6, once the multiplication quizzes have been completed, they complete an arithmetic quiz.

**Reason Mathematically:** reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

Our teaching and learning policy requires all teachers to ask purposeful questions that probe the learner to explain their thinking. This is supported by teachers identifying next step questions when planning.

Teachers model worked examples to the class to be displayed on the mathematics working wall. The teacher also models how to use appropriate mathematical language.

Maths lessons may include opportunities to explore reasoning questions, explain why questions, true or false questions, prove-it questions, same / different questions.

**Problem Solving:** 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.

Children are provided with a variety of problems which is an integral part of the maths lesson. The problem solving is differentiated according to the child's ability.

## **Maths Homework**

Key Stage 2 children have access to 'My Maths' which is an online platform. Homework is set regularly in Y5-6.

Yr 2 – Yr 6 have access to Times Tables Rockstars at home.

## **Assessment**

Each week, Key Stage 2 children complete fluency assessments. This informs their next steps for learning in arithmetic or times tables. Key Stage 1 begin weekly arithmetic assessments after October Half Term.

Prove it tasks are completed by children regularly in books. These are on yellow paper or in separate prove-it books.

They are used to assess children away from the point of teaching.

Once a term, all year 1-6 children complete an NTS arithmetic and reasoning test.

Year 2 and Year 6 also complete 'mock' SATs style papers.

Formative assessment also takes place through rigorous feedback and marking. Next Step green wishes are used across the school to extend children's learning.

## **Impact**

Each term, the Maths Leader will analyse assessment and progress data to look for possible gaps. This is then used to inform action, where the Maths Leader will offer support where necessary. The Maths subject leader also reports to Governors at least once a year.