

**TANKERSLEY C of E (A) PRIMARY  
SCHOOL  
MATHS POLICY  
2018-2019**



*'A love of learning developed in a Christian environment.'*

# TANKERSLEY ST. PETER'S PRIMARY SCHOOL MATHEMATICS POLICY

Our policy outlines the aims, organisation and management for the teaching and learning of mathematics at Tankersley St. Peter's Primary School.

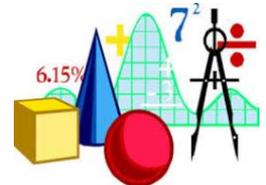


## Aims

Mathematics is a life skill. It is an essential element of communication, widely used in society, both in everyday situations and in the world of work.

### **Our aims in teaching mathematics are:**

- **To equip pupils with mathematical skills and knowledge to work within Mastery.**
- **To develop their ability to apply mathematical fluency and reasoning with confidence and understanding when solving problems.**
- **To enable pupils to talk about mathematics and their ideas using the language of mathematics.**
- **To develop positive attitudes to mathematics, recognising that mathematics can be both useful and enjoyable.**
- **To nurture a fascination and excitement of mathematics.**
- **To be able to use and apply mathematical skills in other curricular areas.**



## Teaching Mathematics

Here at Tankersley Primary School we teach a **'maths mastery' curriculum**.

Maths Mastery allows children to master maths which means acquiring a deep, long-term, secure and adaptable understanding of the subject. It embeds a deeper understanding of maths by using a concrete, pictorial and abstract approach so that pupils understand what they are doing rather than just learning to repeat routines without grasping what is happening.

Children are provided with various opportunities (variance) to apply fluency skills to a broad range of problem solving and reasoning tasks. Talk for Maths is an important approach which allows children to explain their mathematical learning at every opportunity and therefore gain a deeper understanding.

As with other areas of the curriculum, assessment is continuous. From the beginning of every lesson, teachers will be assessing what pupils are, or are not understanding, and next steps for learning. Interventions are planned, meaning that misconceptions are dealt with immediately and higher attaining pupils are given many opportunities to deepen their understanding.

**OUR CURRICULAR PRINCIPLES ARE:**

- i. HIGH EXPECTATIONS FOR EVERY CHILD
- ii. FEWER TOPICS IN GREATER DEPTH
- iii. MASTERY FOR ALL PUPILS
- iv. NUMBER SENSE AND PLACE VALUE COME FIRST
- v. PROBLEM SOLVING IS CENTRAL
- vi. OBJECTS AND PICTURES ALWAYS BEFORE NUMBERS AND LETTERS
- vii. CALCULATE WITH CONFIDENCE — UNDERSTAND WHY IT WORKS

Teaching Strategies

**MATHS MASTERY**

**Concrete**  
**Pictorial (bar model)**  
**Abstract**

Children will explore learning objectives using a range of approaches to gain a deeper understanding...

Children will be continuously **self-assess** their depth of understanding.

**Same day intervention.**

Activities will show **variance** to deepen understanding.

Children will answer questions in a **complete sentence.**

The learning environment will support the needs of all the children.

A variety of **vocabulary** will be taught and explained.

Children will be continuously **explaining** their learning- both **written and verbal.**

Children will explore learning objectives in a range of contexts to gain a deeper understanding...

**Fluency Reasoning**  
**Problem solving (RUCSAC)**



## Maths Meetings

Math's Meetings (5-10 minutes) take place daily. These meetings increase fluency of objectives and consolidate learning.

## Curriculum Planning

### Medium Term Planning

We use the National Curriculum and Year Group Standards to plan teaching sequences.

### Short term planning

We use the Math's Mastery Planning documents- these weekly plans include learning objectives, outline activities showing variation, highlight key vocabulary, and key questions.

*The medium and short term planning is to be monitored by the maths subject leader/SLT.*

## Teaching methods and approaches

In order to provide the children with active and stimulating learning experiences, a variety of teaching and learning opportunities are planned.

Children may work individually on a task, in pairs or in a small group, depending on the nature of the activity.

A Progression in Calculations Policy has been agreed by all staff.

Computing is used where appropriate by teachers and pupils to support teaching and learning in Mathematics.

## Assessment, recording and reporting

Assessment is rigorous and includes: short-term, medium-term and long-term. These assessments are used to inform teaching in a continuous cycle of planning, teaching and assessment.

## Day-to-day assessments

As part of the ongoing teaching and learning process, teachers will assess children's understanding, achievement and progress in mathematics. Assessment may be based upon observations, questioning, informal and formal testing, on the spot, incisive feedback and the marking and evaluation of work. This will inform day to day teaching and learning and provide feedback to children. Learners will also be taught to assess and evaluate their own achievements by recognising successes, learning from their own mistakes and identifying areas for improvement.

Children will self assess their maths work by completing a learning line before and after the lesson as well as completing an end of teaching sequence challenge in KS2. Teachers use a variety of AFL strategies to assess learning, attainment and progress.

### Formal assessment

Formal assessments take place termly. Teachers assess mathematical themes taught during the term using the Math's Mastery assessments. These assessments allow us to analyse gaps in learning and to analyse attainment- are the children at national expectations, above national expectations or below (based on the end of key stage thresholds)? We also use the EMAG tool (EYFS) to track attainment and progress. Year 2 and Year 6 also assess against the end of key stage standards. This data is fed back to the Head teacher at pupil progress meetings where attainment and progress from prior starting points are put into the school tracking system/flight paths and target groups are set.

### Marking

We ensure that our marking provides positive feedback about the achievements and progress made. Children are encouraged to reflect on the feedback using a green 'polishing pen' and to explain their learning at every opportunity. Incisive feedback is provided throughout the lesson so that all children are aware of their successes and targets to move their learning forward.

### Learning environment

It is important to us that the classroom environment supports both the teaching and learning of mathematics and that it needs the needs of all learners.

We strive to provide a mathematically stimulating environment through the use of working walls to support teaching and learning, interactive displays that promote thinking, explaining and discussion, children's work that celebrate achievement and providing a range of resources for teaching and learning.

In every classroom written calculations posters for the 4 operations are on display. These posters model the written calculation procedure.

In every classroom resources such as learning walls, WAGOLLS, use what you know to work out what you don't slogan, number lines, 100 squares, place value charts, multiplication tables are displayed for whole class, group or individual work.

We also ensure that Math's displays are outside the classroom environment, for example on the corridors and communal areas.

Children's work is also celebrated in our Subject in the Spotlight worship and on our school website.

### Math's Ambassadors

Our marvellous year 6 Math's Ambassadors enjoy supporting all classes in our school every half term. They enjoy explaining their learning to other children whilst at the same time deepening their own understanding.

### Equal opportunities

All our pupils have equal opportunity to reach their full potential across the mathematics curriculum regardless of their race, gender, cultural background, ability or physical disability.

### Homework

We recognise the importance of making links between home and school and encourage parental involvement with the learning of mathematics. Homework will provide opportunities for the children to consolidate their knowledge and skills, as well as develop their understanding. It also gives the children opportunities to share their mathematical learning with their family as well as to prepare for future learning.

My Maths and TT Rock Stars is an online interactive homework tool we use for homework.

### Role of the mathematics coordinator

The mathematics coordinator is responsible for writing an action plan linked to the DEP, keeping up to date with whole school data and new initiatives, monitor planning, progression, books, assessment and classroom practice, lead staff meetings, oversee resources, lead parent workshops and finally to update policies when necessary.

A Math's portfolio celebrates the teaching and learning of Mathematics at Tankersley St Peter's Primary.



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