THURGOLAND
CHURCH OF ENGLAND PRIMARY SCHOOL
LEARNING TOGETHER IN FAITH & JOY

Maths Curriculum Overview

Mathematical Intent

We designed our mathematics curriculum with the aspiring goal of all pupils aiming high and achieving mastery in mathematics; developing a love of the subject and an ability to connect areas of learning whilst developing their resilience through problem solving; and know that they can achieve in the mathematics whilst at Thurgoland Primary and in the future.

At Thurgoland we intend to:

- Encourage ALL children to believe that they can achieve and aim high in mathematics!
- Show children that mathematics is a tool for everyday life.
- Ensure children are confident mathematicians who are not afraid to take risks.
- Fully develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement.
- Provide our children with a variety of mathematical opportunities, which will enable them to demonstrate a deep, conceptual understanding of the topic and be able to build on this over time

Mathematical implementation

- **Long term:** National Curriculum and Development Matters
- **Medium term:** WR Yearly overview and small steps, up-dated annually in response to misconceptions, data and in house monitoring of teaching & learning.
- **Short Term:** Short term planning is supported by the use of the White Rose Maths Hub materials.
- A typical Maths lesson will provide the opportunity for **all** children, regardless of their ability, to:
  1. Activate/revisit prior knowledge during the **Mastering Number (KS1)/Fluent in 5(KS2)/Fact Friday**;
  2. See how an answer can be formulated when **Learning is Guided** by the teacher
  3. Work through **Varied Fluency** questions
  4. Whole class problem solving and reasoning through **Guided problem solving**
  5. Apply their learning to **Reasoning and Problem Solving** activities daily
  6. **Reflect** on their learning and progress made during the lesson against the objective
  7. **Arithmetic Friday –** Friday's Maths lessons consist of arithmetic practise in every year group. Fortnightly, the children are given an arithmetic check to identify misconceptions/gaps in knowledge to be addressed in arithmetic lessons/fluent in 5.
  8. **WISK (What I should know)** – At the start and end of units all children will complete a WISK. At the start of the unit the WISK will test pupils prior knowledge in the unit and end of unit will consolidate their learning from the current year groups objectives.

- There are multiple representations for all – using a CPA approach (Concrete, pictorial, abstract). Children who struggle to grasp concepts will continue make use of manipulatives to support their learning before transferring their learning to more abstract understanding.
- Objects, pictures, words, numbers and symbols are everywhere.

- Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.
- Work is marked during the lesson (live marking)
- Pupils who grasp concepts rapidly are challenged through sophisticated problems.
- Those pupils who are not sufficiently fluent with earlier material are provided with opportunities to consolidate their understanding, including through pre-teach sessions and Same Day Interventions.
- For children who are significantly below ARE, the use of several interventions this year include: Num Bots and Dynamo maths.
- Times Tables Rockstars is used by all children to ensure rapid recall of all multiplication facts and corresponding division facts.

Impact

- During lesson planning and book monitoring, cohesion can be seen across and within units due to use of WR small steps.
- 82% of Y6 children leave the school at ARE and 29% at GD, therefore they are well prepared for the transition to secondary school.
- Pupils have a real love for mathematics, which can be seen daily in lessons, during enrichment opportunities i.e. enterprise project, money week and pupil voice activities
- Key facts are used daily though problem solving where children apply their mathematical discrete knowledge, revised during fluent in five and Friday facts to secure chn's subject knowledge.
- There is a consistent approach of the structure of maths lessons throughout the school, children understand the sequence of a lesson and all experience fluency, problem solving and reasoning during every lesson making children prepared for the expectations in Maths.
- Planning is adapted from small steps to reflect the needs of the class/specific children, evidence through questioning, marking, teacher judgement from lessons.

- Girls and groups identified as not making expected progress from previous key stage show confidence in and enjoyment of the subject
- Targets set for girls are in line with those set for boys
- Targets set for PP and SEND pupils are aspirational
- Additional adults are used to support pupils from the beginning of the lesson
- Girls and pupils identified as not making sufficient progress within the lesson are targeted quickly within the lesson
- Work scrutiny shows that all groups make progress within lessons including girls, less able and pupil premium pupils
- All pupils are given access to challenging work – including girls, less able and pupil premium