



Maths Policy

"Everyone who works with children should do what is in the best interests of the child."
Article 3 United Nations Rights of the Child

Rationale

At Trinity School we believe that mathematics influences all aspects of our lives. It applies to all human activities and crosses all cultural and linguistic boundaries to provide a universal way of problem solving. Inherent to mathematics is logical and analytical thinking that connects concepts to real life situations. We strive for all pupils to be curious about mathematics and to understand the importance of mathematics in their everyday lives. Children need time to think deeply about maths and really understand the concepts at a rational level rather than as a set of rules or procedures. By teaching a mastery approach to maths children will develop multiple methods of problem solving, therefore building self-confidence and resilience in all pupils.

Aims and objectives

- To develop a fascination and enjoyment of mathematics
- To develop fluency, reasoning and problem-solving capabilities
- To develop an understanding of mathematical concepts using concrete, pictorial and abstract methods (CPA)
- To allow all children to access the full maths curriculum
- To allow children to think critically and communicate their understanding
- To build self-confidence and resilience in all pupils
- To ensure a deep and sustainable understanding which can be applied to a range of contexts
- To develop and ability in all pupils to solve more complex problems by breaking them down into smaller steps and persevering in seeking solutions
- To encourage learning and understanding through discussion by developing an argument, justification or proof using mathematical language
- To promote inclusion so that all children experience success

Curriculum

At Trinity School we follow the Jersey Curriculum for Mathematics. To ensure that the fundamental aspects of mathematical reasoning, fluency and problem solving are delivered teachers follow the Maths No Problem mastery approach to teaching.

Curriculum – EYFS

Mathematics within the EYFS is developed through purposeful, play based experiences and will be represented throughout the indoor and outdoor provision. The learning will be based on pupils' interests or current themes and will focus on the expectations from Development Matters / Early Years Outcomes. As the pupils progress through, more focus is placed on representing their mathematical knowledge through more formal experiences. Pupils will be encouraged to record their mathematical thinking when ready and this will increase throughout the year.

Curriculum – Year 1 to 6

Pupils spend far longer on key mathematical concepts in number. From Year 1 to Year 6, we follow a structured approach by using Maths No Problem. This is flexible to the needs of the pupils, and teachers are expected to use their own judgement when deciding to revisit concepts that have not been fully understood. Those pupils who grasp concepts more rapidly are given opportunities through extended journaling tasks to deepen their knowledge further. This helps to improve their reasoning skills and problem solving, rather than accelerating on to new curriculum content.

Spoken language

The Jersey curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy any misconceptions.

Technology

All pupils from KS1 should have access to solving problems using technology, such as a calculator, iPad or software to support their thinking.

Efficient problem solving now requires the use of digital technology. Pupils should be encouraged to use their judgement about when and which supportive tools to use. Teachers should help to inform that choice with needs of the curriculum.

Technology is used to provide instant feedback to a pupil's written calculations, allowing for reflection and, if necessary, correction.

Planning

Within the EYFS phase, we use 'In the Moment' planning in order to hook into the interests of the children. Where necessary, individual sessions are planned to meet the expectations of Development Matters / Early Years Outcomes, however the follow up activities will always link back to the children's thoughts and ideas.

The LTP for Year 1 through to Y6 can be found on the TSA. This provides an overview of the MNP approach and outlines the concepts to be covered in each class over the course of the three terms. The MTP can also be found on TSA area and this provides a weekly breakdown of the lessons to be taught, curriculum and lesson objectives plus the expected outcomes for the children.

The MTP is used as a tracking document and teachers will highlight off lessons taught to demonstrate that children are receiving coverage of the full curriculum. Weekly / individual lesson planning is available on the MNP website and teachers should use this as a clear guide for their lessons, by making sure that they have read and understood the main concepts covered. Although available online, all teachers will include this information (including suggested differentiation) in an individual lesson plan.

Marking and Feedback (As per Marking, Response and Reflection Policy)

When marking Maths we use whole class record sheets. This replaces the need to make written comments and next steps in individual books. However, it does not replace the need to 'mark' the books and a class teacher should be responsible for assessing the learning at the end of each lesson.

Each teacher will be supplied with a marking and feedback record on which they will make notes on:

- Next steps for the learning – whole class and individual
- Any misconceptions/errors to address at the start of the next lesson
- Note the names of any emerging and developing child and anyone who needed support
- Pick out at least one WAGOLL
- Presentation, spelling and incomplete work.
- It is not necessary to name children who were secure – as it will be assumed they are if they have not been named.
- These sheets need to be filed and kept in an organized filing system by the class teacher and passed up to the next class teacher at the end of the year. They will be kept for a year.

Assessment, Recording and Reporting

Teachers are continually assessing children in lessons through high quality differentiated questioning during In Focus and Guided Practice work. In addition children are assessed through their responses and explanations in Maths Journals and Workbooks. We make medium-term assessments to measure progress against the key objectives and these are tracked by entering judgements onto SIMS, once objectives have been covered. How often these are entered is decided by the teacher, but must be updated on a termly basis. In addition, at the end of each term children are assessed using PUMA (Progress in Mathematics) and a half-termly arithmetic assessment (Y5 & Y6 only).

At the end of each academic year, teachers use all the above assessment tools to generate an understanding of where each pupil is in their learning for their year group. This will be in the form of Emerging, Developing or Secure in their year group. We inform parents of children's progress through consultations that occur in the Autumn and Spring term, as well as an end of year report, which parents receive in the Summer Term.

Equality and Inclusion

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 also be taken to ensure that a variety of learning styles are accessed and teaching methods adopted. The MNP approach enables all teachers to offer this experience to children through concrete, pictorial and abstract methods.

Other opportunities for Mathematics (Contribution in other areas)

Generally mathematics will be taught discretely to ensure that links are not tenuous, however where there is a clear link to another subject e.g. data handling within science, mathematics skills should be applied to this subject and used to evidence the pupils' depth of understanding.

Monitoring and Review

Mathematics is monitored and evaluated as part of the school's monitoring cycle. This might include lesson observations, book looks, pupil consultations, planning scrutiny and reviewing of resources.

The Maths Co-ordinator aims to:

- support colleagues with planning and teaching of the Mathematics Curriculum
- monitor and review the teaching of Mathematics throughout the school
- review teachers' planning to ensure that the statutory requirements are being covered
- attend related subject leader meetings and training sessions in order to inform colleagues about new developments, ideas and resources in Mathematics
- scrutinise data to identify key groups and plan interventions as necessary

Written by Rob French

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