JOHN T. RICE INFANT AND NURSERY SCHOOL

Maths Policy

Introduction

This policy has been written as a response to changes in the teaching of Maths through the New Primary Curriculum 2014.

It is a statement of the aims, principles and the teaching and learning of Maths at John T. Rice Infant School. At John T. Rice Infant School, we follow a Maths mastery approach with the aim to develop knowledge, fluency, mathematical reasoning and competence in solving increasingly sophisticated problems allowing children to apply their mathematical knowledge in a variety of contexts. We also aim to provide hands-on experience to aid understanding of mathematical concepts by providing the children with a range of concrete resources to use.

At John T. Rice Infant School we have high expectations of children's work and celebrate children's achievements, fostering self-esteem and confidence.

Aims

In Maths we aim for the children: -

- to become fluent in the fundamentals of mathematics, 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.
- to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- to 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.

Objectives

Maths planning objectives focus on fostering fluency, reasoning, and problem-solving skills through sequenced, mastery-based, and differentiated lessons

Teaching & Learning

Our Curriculum

At John T. Rice we follow the Learning Challenge Curriculum. The ethos that underpins the Learning Challenge approach requires teachers to check on what children already know and then inspire them through an initial key question and subsequent questions to investigate. Each Learning Challenge has a 'wow' to begin each half term and its own reflection at the close. By using these there is a more complete level of challenge for the pupils.

Maths in Foundation Stage

In Foundation Stage we follow the EYFS statutory framework which focuses on developing a strong grounding in number which is essential so that all children develop the necessary building blocks to excel mathematically. The approach to Maths in Early Years is a practical approach with emphasis on using concrete apparatus to understand Mathematical concepts. There is a range of maths opportunities across the outdoor and indoor continuous provision, which teachers update regularly to reflect the weekly maths focus. Every week there is a teacher led Maths focus activity and an independent rainbow challenge. There are daily Maths activities in Foundation Stage 2 such as 100 days of school and number of the week.

Maths in KS1

In Mathematics the children will be taught the age appropriate objectives from the National Curriculum programme of study for:

- Number –
  - Number & place value
  - Addition & Subtraction
  - Multiplication & Division
  - Fractions
- Measurement
- Geometry
  - Properties of shapes
  - Position and direction
- Statistics

Planning

Our planning is based on a Yearly Overview for each year group with each area of study planned in throughout the year to ensure curriculum coverage. Topics are revisited throughout the year to help children retain their knowledge and skills. Each area of learning is broken into small steps based on the White Rose Scheme of learning.

Arithmetic lessons are planned each week to build up children's mathematical fluency.

Each maths lessons begins with a Flashback Four slide as a starter activity. This slide has 4 questions based on prior mathematical learning and children are given five minutes to answer questions on whiteboards before the answers are discussed as a class. This again encourages retention of previously taught topics. Each lesson also includes problem solving

slides. These may take the form of a discussion as a class or a written response, ensuring children are exposed to reasoning and problem solving every day

Year 1 teachers plan the Year 1 maths and Year 2 teachers plan the Year 2 maths using the Yearly Overview, Small Steps and National Curriculum Objectives for each topic. Children are taught the maths appropriate to their year group ensuring each year group is exposed to the exact same learning. The mixed year group class splits for maths lessons to ensure this is the case.

Class teachers have responsibility for using the yearly overview as a basis to plan effective maths lessons incorporating fluency, reasoning and problem solving which is adapted to the needs of the children by using assessment for learning. Within planning, there is an emphasis on providing opportunities to use a variety of resources and allowing children to develop confidence in using a range of pictorial and abstract methods.

Maths mastery definition

Mastering Maths means acquiring a deep, long-term, secure and adaptable understanding of the subject. Using concrete, pictorial and abstract resources and applying mathematical concepts in different ways, enables pupils to see how mathematical concepts connect. At any one point in a pupil's journey through school, achieving mastery is taken to mean acquiring a solid enough understanding of the maths that has been taught to enable him/her to move on to more advanced material. The John T Rice written calculation policy details the concrete, pictorial and abstract methods taught and used within each area of Mathematics.

Resources

Mathematics resources that are used regularly (such as counters, base ten and numicon) are kept in every classroom. These are available for children to access independently in all aspects of their Maths learning. Resources that are more subject specific (such as time, shape, capacity) are kept in a central area that is situated in the Hall where they are in clearly labelled boxes according to their use in Maths lessons.

Monitoring & Assessment

Children are informally assessed during lessons (formative assessment), through questioning and performance which will be used formatively to inform planning. Teachers assessment forms, based on the National Curriculum Objectives are included in the back of each child's maths book and are update and the end of each taught topic. Termly Arithmetic and Reasoning and Problem Solving Assessments are carried out using the White Rose Assessment Booklets. Summative assessments are used at the end of each term through Arbor to show progression throughout Foundation Stage and Key Stage 1. At the end of KS1 children are assessed through teacher assessment to give an end of key stage judgement.

Book Looks are completed termly (with either the SLT/ maths leader/ teaching staff) to monitor the quality and consistency of work in Maths.

Non-negotiables

The non-negotiables are the end of year expectations that outline the mathematical skills we aim children to be secure in by the end of each year. They focus on developing children's fluency in terms of counting and key mathematical skills. Throughout the day, teachers will take opportunities to develop fluency with mental and oral activities such as counting and recall of number facts.

Oracy on Maths

Oracy activities are encouraged within Maths whenever possible. Higher Level Thinking Questions are included on planning slides. Children are also encouraged to explain their mathematical reasoning throughout lessons and the expectation is that they speak in full sentences when carrying out calculations (For example saying "3 plus 2 equals 5" rather than just giving an answer of 5)

Equal Opportunities

At John T. Rice Infant School we are aware of the need for equality of access for all children. Our staff believe strongly in creating equal opportunities for all children and work to this aim. We introduce and build upon the children's awareness of equal opportunities including the development of respect and understanding of multi-cultural, gender and S.E.N.D issues.

E-Safety

Whilst using a wide range of technologies to teach Maths, we need to ensure children are safeguarded. E-Safety encompasses Internet technologies and electronic communications such as mobile phones as well as collaboration tools and personal publishing. It highlights the need to educate pupils about the benefits and risks of using technology and provides safeguards and awareness for users to enable them to control their online experience.

E-Safety depends on effective practice at a number of levels:

- Responsible ICT use by all staff and pupils; encouraged by education.
- Sound implementation of e-safety policy in both administration and curriculum, including secure school network design and use.

This policy was agreed by staff in spring 2026 & taken to strategic development committee in spring 2026. Due to be reviewed in 2029

Monet Booth