

JOHN T. RICE INFANT AND NURSERY SCHOOL



Science Policy

Introduction

This policy has been written as a response to changes in the teaching of Science through the New Primary Curriculum 2014 and the new Early Years Foundation Stage Curriculum in 2021.

It is a statement of the aims, principles and the teaching and learning of Science at John T. Rice Infant School. At John T. Rice Infant School we aim to develop children's scientific knowledge and understanding by creating curious, creative thinkers and giving them the necessary skills and confidence to explore and investigate for themselves. We also aim to provide hands-on experience wherever possible and to use drama/role-play to aid understanding.

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

INTENT

EYFS

Aims

Children will be given the opportunity to explore the world around them through high quality provision in the Foundation stage environment with both continuous provision and enhancements, alongside high quality adult interactions.

Objectives

By the end of the Early Years Foundation Stage, children at the expected level of development will:-

- Explore the natural world around them, making observations and drawing pictures of animals and plants.
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Key Stage 1

Aims

The national curriculum for science aims to ensure that all pupils:

- develop **scientific knowledge and conceptual understanding** through specific disciplines of biology, chemistry and physics
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help the to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future

Objectives

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

Working Scientifically

- Ask simple questions and recognise that they can be answered in different ways.
- Observe closely, using simple equipment.
- Perform simple tests.
- Identify and classify
- Use their observations and ideas to suggest answers to questions
- Gather and record data to help in answering questions.

Year 1

- Plants
- Animals, including humans
- Everyday materials
- Seasonal changes

Year 2

- Living things and their habitats
- Plants
- Animals, including humans
- Uses of everyday materials

IMPLEMENTATION

Teaching & Learning

Our Curriculum

At John T. Rice we follow a Topic based Curriculum. Our five School Drivers are Communication Skills, Resilient Learners, Possibilities, Mental Well-being and The Wider World, which underpin all aspects of our curriculum. Our curriculum has been designed to be engaging, broad and rich. It is a curriculum that evolves, based on the needs of our children and changes in the world around us. It takes into account the local context of the school, experiences and backgrounds of our children and provides them with the relevant and memorable learning experiences to enable them to become well rounded, successful citizens. Our school vision, values and ethos are interwoven within this vibrant curriculum.

Planning

Our long-term planning is based on a two-year planning cycle (Cycle A and Cycle B) with a different theme each term and a planned in visit or visitor.

Key Stage teams meet half termly to complete the medium term planning. To ensure that the Topics provide adequate coverage and progression through Years 1 & 2, the subject leader has written a progression map containing details of the vocabulary and breadth of study to be taught. This then provides

the basis for the medium-term planning. This provides details of each lesson objective, vocabulary and necessary knowledge. One teacher will plan this to ensure consistency through the classes.

A scientific investigation will be planned in each half term for each Topic to ensure children are given the opportunity for practical hands on science, to explore and investigate for themselves and to practice and develop their 'Working Scientifically' skills.

Class teachers have responsibility for creating their own weekly planning based on the needs of their children using the medium term topic slides and resources.

Non-negotiables

Non-negotiables are a clear map of the basic skills to be taught in each year group. These are essential for children to unlock their learning and make progress. Opportunities to teach these skills are interwoven through the Science curriculum.

IMPACT

Monitoring & Assessment

Children are informally assessed during lessons, through questioning and performance which will be used formatively to inform planning. Summative assessments including a Quick Quiz, are used at the end of each half-term to show progression, using Classroom Monitor for Key Stage 1 and Tapestry for Foundation Stage.

Work scrutinies will be completed informally by the subject leader (with either the SLT or teaching staff) to monitor the quality and consistency of work in Science. Planning will be looked at to monitor coverage and progression of Science across the key stage.

Speaking & Listening

Speaking and listening activities should be encouraged within Science whenever possible. These should be linked to the learning objectives for Spoken Language taken from the National Curriculum for English and the Communication and Language Area of Learning taken from the Early Years Foundation Stage Framework. .

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. issues.

John. T. Rice Infants is committed to ensuring equality of opportunity in line with the Equality Act 2010. We aim to reduce disadvantages, discrimination and inequalities of opportunity, and promote diversity in terms of our pupils, our workforce and the community in which we work.

We will assist our pupils in achieving to their very best potential. Where pupils experience barriers to their success, we will work with them to address these in a sensitive and sympathetic way. We will teach our

pupils the importance of equality and what forms discrimination can take and the impact discrimination can have.

We will not discriminate on any of the grounds listed below (known as the Protected Characteristics) save where such discrimination is permitted by law. The Protected Characteristics that apply to schools are:

- Age (in relation to staff only);
- Disability;
- Gender re-assignment;
- Marriage and civil partnership (in relation to staff only);
- Pregnancy and Maternity;
- Race;
- Religion Faith or Belief;
- Sex; and
- Sexual orientation.

E-Safety

Whilst using a wide range of technologies to teach Science, 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 and has been agreed by the Governing Body. This policy was reviewed in Spring 2023 and will be reviewed again in Autumn 2025.