

Science Policy

Introduction

This policy is to support the schools' Vision Statement "Inspiring minds to ignite lifelong learning", which we have developed, through staff consultation.

Science is a foundation subject within the Manx Curriculum. This document gives broad outlines of the nature, purpose and management of science as it is delivered and received at Onchan Primary School.

Entitlement

Every child at Onchan Primary School is entitled to science lessons which are inspiring, fun, creative and challenging. Through this he/she will have the opportunity:

- to develop a positive attitude to science
- to acquire the necessary scientific skills, knowledge and understanding needed to begin to understand the world and his/her environment
- to develop an ability to apply scientific skills and knowledge to other areas of the curriculum and recognise its potential in everyday life.
- Most lessons should include an SC1 Learning objective and / or skill
- Every lesson should include the chance for pupils to reflect upon and discuss their learning
- Learning should be challenging and children should have opportunities to undertake independent research to develop scientific curiosity.

Early Years

(See also Early Years Policy documentation)

Science links in with the Foundation Stage Curriculum, through the area of study known as "Knowledge and Understanding of the World." It will be assessed using the EYFS documentation and using Tapestry.

The science experienced by the Early Years children is an intrinsic part of everyday life. From the very beginning, we aim to set science in a real world context, developing language and scientific curiosity. It is important that we maximise the potential offered through play and day to day situations.

Key Stage One

During Key Stage 1 children will have the opportunity to:

- observe, explore and ask questions about living things, materials and phenomena
- work together to collect evidence to help them answer questions and to link this to simple scientific ideas
- evaluate evidence and consider whether tests or comparisons are fair
- use reference materials to find out more about scientific ideas
- share their ideas and communicate them using scientific language, drawings, charts and tables.
- It is essential that time is allowed during investigations to consider the Discussing, Explaining and Evaluating strand - these include the Higher Order thinking (HOT) skills. Teachers will plan high quality investigations over the year that allow the children to develop those skills.

Key Stage Two

During Key Stage 2 the skills and knowledge developed at Key Stage 1 will continue to be built upon. The children will have the opportunity to:

- learn about a wider range of living things, materials and phenomena
- make links between ideas and explain things using simple models and theories
- apply their knowledge and understanding of scientific ideas to familiar phenomena, everyday things and their personal health
- think about the positive and negative effects of scientific and technological developments on the environment and in other contexts

- carry out more systematic investigations working individually and with others
- use a wider range of reference sources in their work
- develop their ability to talk about their work and its significance and communicate ideas using a wider range of scientific language, conventional diagrams, charts and graphs.
- In order to develop some of the analysis and evaluative skills it will be necessary to give the pupils opportunities to analyse different sets of data or review different investigations.

Outdoor Learning

We endorse outdoor learning whenever it is appropriate to enhance educational opportunities. Outdoor learning is an intrinsic part of scientific thinking and exploration. There are clear links to life and living processes which can be explored using the environments available to us within our locality. Opportunities should also be identified when scientific learning can be taken outside the classroom supporting science through first hand experiences.

SOLE

Self organized learning environments, or SOLE, is one of our key curriculum drivers. Using big questions that are especially applicable within science, give children the opportunity to research, make links in learning and the develop high quality, enhanced scientific curiosity. We aim to challenge the children's thinking and develop open ended learning experiences.

Sustainable development goals (SDG)

We have sought to make clear links between the SDG's, Big Questions and Science. The SDGs are part of the school's commitment to develop understanding of the fragility of our world, improving technologies for future living and the relationship between ecosystems and world-wide themes. Termly questions are set across the school over a two year period to ensure children are encouraged to research and think in greater depth around each of the SDG during their time at Onchan School.

Methods of Recording

As part of an inspiring, creative and challenging curriculum, it is important that we are creative in our way of recording scientific achievement.

It is not necessary to record all the scientific work that the children take part in, but when it is appropriate to do so, the following should be noted:

Recording can take different forms, depending on the nature of the scientific activity and the purpose of the record, for example, it could be through :-

- talking (recorded on sound studio)
- drawings
- construction (models)
- charts, tables, graphs and diagrams
- written
- observational records
- photographs

ICT

I.C.T. will be used when appropriate, to develop scientific skills, knowledge and understanding. We should be aware that in a rapidly evolving technological world there will be many varied opportunities for IT to be used creatively to improve scientific knowledge and understanding.

Equal Opportunities

Regardless of social background, race, gender, orientation, differences in ability and disability, all pupils at Onchan Primary School are entitled and are given high quality scientific experiences.

These will enhance pupils' knowledge, understanding, skills and attitudes necessary for their self-fulfilment and development. It is the responsibility of all teachers to ensure this takes place in an inspiring, creative and challenging way.

Assessment, Recording and Reporting

Children's work in Science is subject to ongoing assessment. Assessment data is logged on Arbor on a termly basis. We broadly follow statements within the National Curriculum and programmes of study.

Science is to be reported to parents on an annual basis, as part of the end of year report. Yr 2 and Yr 6 teachers will report on children's levels of attainment to Parents and report to DESC the overall level.

Data is shared on the school website.

It is the responsibility of the Headteacher and the Science Co-ordinator, through monitoring and evaluation, to ensure that all staff are implementing the policy.

Review

This policy will be reviewed annually in consultation with the Headteacher and all teaching staff.

November 2022