The Grange School

Science Curriculum Policy

October 2016
To review October 2019

THE GRANGE SCHOOL
DAVENTRY, NORTHAMPTONSHIRE

Science Policy for the Grange School Daventry

This policy outlines the teaching, organisation and management of Science teaching and learning at the Grange School. The implementation of this policy is the responsibility of all teaching staff. The responsibility of monitoring lies with the Science co-ordinator.

Aims

The teaching of Science aims to ensure that all pupils:

- develop **scientific knowledge and conceptual understanding** through the 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 them to answer scientific questions about the world around them.
- are equipped with scientific knowledge required to understand the **uses and implications** of science today and for the future.

Teaching time

KS 1 and 2 use a thematic approach and therefore the time allocated each week is flexible as long as a thorough coverage of the new National Curriculum programmes of study is ensured.

In the Foundation Stage the time allocation will vary due to the cross-curricular nature of the curriculum.

Teachers plan the science topics for the whole year group collaboratively to ensure continuity. Lessons can be taught either to individual classes or the whole year group, with follow-up activities taking place in the classes.

Links within the curriculum

Through the thematic approach, Science should also improve pupils' skills in literacy, numeracy, ICT and art. Specifically, pupils should apply their mathematical knowledge, including collecting, presenting and analysing data. Pupils' thinking skills, life skills and basic skills should also improve through the teaching of Science.

Specific Science-based requirements

It is vitally important that pupils develop a secure understanding of each key block of knowledge in order to progress to the next stage.

Pupils should be able to describe associated processes and key characteristics in common language, but should also use, and be familiar with, technical terminology accurately and precisely.

'Working scientifically' specifies the understanding of the nature, processes and methods of science in

each year group; it is not a separate strand. It needs to be embedded within the content of the Science curriculum, so pupils learn to use a variety of approaches to answer relevant scientific questions. Collecting, analysing and presenting data should be included to seek answers to scientific questions.

Spoken language is very important in the development of the pupils' scientific vocabulary and the articulating of scientific concepts clearly and precisely. They must be assisted in making their thinking clear, both to themselves and others. In Science lessons, discussion must be used to probe and remedy scientific misconceptions as well as ensure that pupils build secure foundations in their scientific knowledge.

Pupils should read and spell scientific vocabulary at a level consistent with their increasing reading and spelling knowledge of the relevant Key Stage.

Equal opportunities

The teaching of Science is fully inclusive. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability.

National Curriculum Science Programme of Study

The new Science Programme of Study will be the foundation of the teaching of Science at the Grange school from November 2013. This will be linked to the Science Learning Challenge Curriculum (Focus Education by Clive Davies). Teachers need to make sure the relevant Programme of Study for their year group is taught, using the Challenge Curriculum to ensure complete coverage with the necessary challenge, making the lessons relevant, exciting and creative.

The usual planning format is used for the Science lesson with steps for success, starters and plenaries in lessons that ensure pupils fully understand what they are learning, how they learn and how well they are progressing.

Resources

Each year group will have a copy of the new Science curriculum for their Key Stage and the Challenge Curriculum for their year group.

Most Science resources are together in the science cupboard, in boxes organised depending on the science theme or resource type.

ICT resources in the ICT suite and in the classroom as well as the interactive whiteboards in the classrooms give opportunities to use ICT in the science lessons.

Assessment

Use Learning Journeys as evidence of pupils' learning, understanding and what they can do individually.

Use observations and discussions to make periodic judgement using APP.

Report annually to parents on how well the pupil has achieved in relation to the key skills, what they do well and what is needed for further improvements.

Teachers are expected to annotate the science planning during/after the Science lessons.

Pupils are given a National Curriculum Science Level at the end of each Key Stage.

Science Coordinator's role

Use non-contact time to audit current practice, reporting findings to staff and governors. (Learning Journey science work, planning, Learning Walks and lesson observations)

Update the Science Action Plan to develop the teaching of science throughout the school.

Support colleagues in the teaching of the subject content.

Renew and update resources within budget restraints.

Keep abreast of developments in the teaching of Science.

Promote Science throughout the school.

Date of most recent review: October 2013

Date of next review: October 2016 or sooner if required