

Science Policy

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Rationale

The study of science is a core subject entitlement for all our pupils. We believe that science for young people means exploring, discovering and investigating the world around them. These experiences will help them to understand more about the world they live in and appeal to their instinctive curiosity, imagination and creativity.

We agree that the exploration of science through personal experience is the real heart of the scientific process and try to produce opportunities to achieve this through an adapted but robust curriculum. We aim to help them recognise the significant contribution which science makes to their world through experiment, discussion and study.

We aim to ensure that such experiences will be appropriate and relevant to the world of the pupil but must also offer a worthwhile challenge and framework to learn academic skills and achieve accreditation and recognition. We offer our pupils a broad and balanced curriculum which allows our pupils to build on previous experience and develop wider ideas.

Our aims at Willow House School are to allow our pupil, through the teaching of science, to:

- Acquire knowledge and understanding of the important scientific ideas which relate to their everyday experiences and needs.
- Understand how scientific enquiry is conducted and appreciate the reasoning and kinds of evidence underlying scientific claims.
- Learn about the world and work of the scientist.

- Appreciate the role which science plays in the modern world.
- Think about the advantages and disadvantages of scientific and technological developments for the environment and in other contexts and to consider differing opinions.
- Consider how science relates to other subject areas and particularly to literacy and numeracy.
- Feel confident in discussing a range of personal, social, and other issues that have a scientific dimension.
- Develop the skills and attitudes necessary to help them contribute to wider social and economic situations.

Teaching and learning

Our Science teaching is based on the National Curriculum Programmes of Study for Key Stages 1/2/3. The National Curriculum attainment targets set out the expected standards and inform our planning; together with the individual needs interests and abilities of our pupils.

Where possible science work is planned to link with other curriculum topics or may develop from interest in other subject areas but is also informed by the demands of the NC and exam syllabus.

We run a primary model general science programme for pupils with special needs who benefit from an integrated approach.

Science teaching is practical and active wherever possible. Literacy and Numeracy are embedded within the curriculum and schemes of work.

ICT particularly lends itself to Science and this is exploited at Willow House School where we recognise its potential to provide more accessible and enjoyable science sessions. Use of PCs and interesting software extends the curriculum providing a wider range of teaching and learning opportunities. Staff at Willow House School are encouraged to update their skills and knowledge in order to take advantage of the wide range of materials available.

Personal computers are available to all pupils at Willow House School which also allows for group work where we can encourage co-operation and social skills and which also gives us the flexibility to provide 1:1 support and individual programmes so important for our pupils.

Assessment Recording and Reporting

(See also Assessment policy)

On-going assessments take place within all Key stages of the science programme. Unit and modular work allows staff to chart progress systematically using resources provided while allowing each pupil to work at their own pace. Formal assessments also take place through school-based examinations. Ideas and enquiry are less easily assessed but will be recorded by teaching staff through Speaking and Listening assignments and through material produced by the pupil in other forms such as written work or art work.

Pupils keep records of the work they have covered, what they have learnt and the targets they negotiate with staff in their Science files. Efforts will be made by staff to focus on the successful application of skills learnt in science in other subject areas through joint planning.

Staff record their on-going assessments in; pupil files, mark books and in end of term reports for care and education files.

Schemes of work and lesson plans enable staff to pitch work at the right level for each pupil.

Progress in all areas is reported in daily exchanges between education and care staff, in weekly meetings and more formally in end of term reports and on the Science assessment grids.

Pupils are also assessed on behavioural targets.

Resources and Environment

Pc's, workstations and a range of Science software and resources are also available in the rest of Willow House School to encourage cross curricular links and project work. All pupils have access to a PC or laptop. Scientific equipment is available under careful Health and Safety guidelines and pupils are supervised at all times (see H&S policy). Risk Assessments are routinely carried out to allow staff to review pupils' ability to keep themselves and others safe in specific contexts including in practical science sessions. Pupils have access to, and are expected to wear, protective clothing where appropriate and/or necessary.

Planning and Reviewing

Assessment is directly and explicitly linked to planning at Willow House School. Staff collaborate to produce interesting and relevant cross curricular projects which will meet targets and provide our pupils with a wider range of subject areas than we would normally be able to provide through a traditional single-subject curriculum. Staff negotiate with pupils wherever possible to plan learning pathways in Science which will match their emotional, social and academic needs and abilities. The curriculum is necessarily linked to the demands of the exam syllabus to some extent and this also provides a planning framework to allow us to prepare the young people sufficiently but without pressure which might be counter productive. Our chosen published programmes and set texts for KS3 and also provide a useful structure for planning although pupils are within that guided framework able to work to their own pace and be encouraged to challenge them and have high expectations.

Staff at Willow House School are constantly reviewing our practices to ensure that we are managing the dual role of helping our pupils with personal issues and also providing them with all the educational opportunities they are entitled to. Reviews take place daily on an informal basis through staff team teaching and mutual support, through discussion at 'handover' with care staff and with wider agencies such as Social Workers etc. Teachers will review work with each individual child as they work closely together throughout the year; pupils will be encouraged to support each other to review work and set targets for each other.

Weekly staff meetings also provide opportunities to review all aspects of Willow House School, from teaching and learning, resources and accommodation, behaviour and academic progress or the lack of. Pupils are encouraged to work systematically through the required units or work but alternatives are also 'planned in' to our curriculum to allow for pupils to take a subject or information further or into other areas such as personal projects. Regular reviews are an opportunity to trial new approaches or resources and to evaluate their impact and usefulness within our particular setting.

Policy review

This policy document will be reviewed by the Executive Headteacher on an annual basis to ensure it is up to date with current legislation and best practice.

Date approved: April 2014

Date last reviewed: September 2022

Next review (or before): September 2023

Signed: 

Position: Education Director

Staff Acknowledgement

In signing this document I am confirming I have read the information and have an understanding of the procedures outlined within the information provided.

I have had the opportunity to discuss this document with a Senior Leadership member of staff to gain further clarity.

I also know that if I feel I need further guidance I know I can access through the Executive Headteacher.

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