Science Subject Policy

Subject Leader: Hannah Heyes Date: Nov 2026

This policy document will form the basis for the delivery and development of Science at White Ash School. It gives guidance on planning, teaching and assessment. The policy draws together the NC Guidelines (2014) and statutory requirements for Foundation Stage and Key Stages 1 and 2.

Intent Statement

At White Ash School Science is an essential part of the curriculum. Through the teaching of Science, we endeavour to provide opportunities to observe and consider the world around us and stimulate a pupil's curiosity in finding out why things happen in the way that they do.

We believe that it is important to promote a positive attitude towards science amongst all our pupils in order to develop self-confidence and a sense of achievement.

The principles for science are as follows:

- Policy and provision are evaluated and reviewed regularly
- Resources are planned and budgeted for and in a yearly subject action plan as part of the School Development Plan.
- The governing body of the school will follow their statutory responsibility in relation to science
- Cross curricular links will be highlighted where appropriate

Aims

- Provide a broad, balanced, challenging and enjoyable science curriculum for all children.
- Use the recommendations of the National Curriculum as a foundation for our pupils learning with high regard for differentiation for each pupil.
- Ensure that teaching is based on careful assessment, builds on the strengths of individual pupils; sets suitable learning challenges and includes all learners by overcoming potential barriers to learning and assessment.
- Provide practical opportunities for children to observe, explore and ask questions and begin to collect and evaluate evidence.
- Encourage pupils to use their senses to explore and investigate.
- Build children's confidence in science.
- Encourage children to work both independently and co-operatively with peers.

In response to these opportunities, it is hoped that pupils can make progress in Science by:

- Experiencing that personal actions have consequences, leading to the seeking of explanations, and an understanding of the links between causes and effects
- Increasing the breadth and depth of their experience, knowledge and understanding
- Linking and applying scientific knowledge and understanding to everyday life, *for example, to cooking, to their own health, in the use of materials for functional purposes*
- Investigating the familiar, and later developing a broader environmental and technological perspective
- Developing an understanding of the more abstract as well as the concrete and practical
- Moving from description to explanation of events and phenomena

Implementation

Science in Key Stages 1 and 2 is delivered as a discreet subject for one hourly session a week throughout the year. Each term focuses on a different topic area as suggested in the curriculum map, with supporting materials within Inspiring Science.

The Science Curriculum follows the content of the revised National Curriculum to provide lessons that are differentiated appropriately to meet the needs and ages of the pupils, thereby ensuring progression as they move through school. Planning is supported by a number of resources including Hamilton Trust and twinkl science. These resources address the aims of the curriculum and provide teachers with the necessary knowledge to adapt as needed. By using personalised approaches to teaching and content, the experiences and targets will be altered to take account of a pupils' growth.

We carry out curriculum planning in science in three phases (long-term, medium-term and short-term). The long-term plan maps the topics studied in each term during each key stage; this is created to ensure coverage of objectives, progression of skills and avoidance of repetition. Medium term topic plans for each subject area are created by teaching staff with an emphasis on the knowledge and skills that will be taught and how they will be taught. Science is taught discretely, but staff make meaningful links across subjects where appropriate. Prior knowledge is linked to new learning to deepen children's understanding and to ensure new concepts and skills are retained. The class teachers create the short-term lesson plans for each Science session. These plans list the specific learning objectives and resources for each lesson.

All pupils will be encouraged to engage in relevant and challenging scientific activities based on practical 'hands on' experiences. The teaching of science provides opportunities for group work, paired work, whole class teaching and individual work.

Pupils will engage in:

- Observational work
- Practical investigations
- Questioning
- Collecting evidence and evaluating

- Communicating ideas through various means
- Making predictions and changing conditions during experiments.
- Understanding the principal of a 'fair test'.
- Developing scientific enquiry skills.

We endeavour at all times to set work that is challenging, motivating and encourages the children to talk about what they have been learning and give them the opportunity to apply it in real life contexts.

Early Years/Foundation Stage

Science in the foundation stage is addressed through free-flow learning and exploring the world. It is covered in the specific area 'Understanding the World' of the EYFS Curriculum. It is explored indirectly through activities that encourage every child to explore, problem solve, observe, predict, think, make decisions and talk about the world around them. EYFS teachers will encourage children to explore a chosen scientific area through the set up of specific stations. Children in foundation stage are encouraged to use and discover a variety of materials, tools and techniques, whilst making observations and exploring similarities and differences of objects and living things around them. It is important for EYFS pupils to show awareness of their own health and hygiene from a young age, including healthy eating habits.

Science and ICT

ICT enhances the teaching of Science at White Ash. It also offers ways of impacting on learning which are not possible with conventional methods. Computers and appropriate software, cameras and video cameras, digital microscopes, oral recordings can be used to support learning and be used as evidence for assessment purposes. For our informal learners the use of big macks, switches and switching toys can be a key part of science sessions.

Cross-Curricular Links and Opportunities

The subject of Science is allocated the appropriate amount of time, taking into account NC guidance, to provide pupils with a broad and balanced curriculum,

which is appropriate for their needs. For some of our informal learners the breadth and balance of the curriculum is addressed through individual timetables.

Opportunities to explore Science are also found across all areas of the curriculum and in everyday situations such as morning breakfast club, dinner time and play time. Science also plays a role in Learning Outside the Classroom – pupils are given the opportunities on Educational Visits to explore the varied use of Science in the wider world and to record their experiences using iPads and other digital recording devices

Impact

The assessment of Science is through phased document on EfL and the children's own EHCP. Targets are set for children based on previous knowledge and taking in to account children's EHCP targets. Teachers are required to baseline pupils in September and then each term thereafter. All pupils work is marked in accordance with the schools' marking policy.

The Role of the Subject Leader

The science subject leader is responsible for co-ordinating science throughout the school. This includes:

- To attend and advise on in-service training to staff where appropriate. This will be in line with the needs identified in the Development Plan and within the confines of the school budget
- To provide advice and support for colleagues in the implementation and assessment of science throughout the school
- Responsibility for the requisition and maintenance of resources required for the teaching of science. This will be within the confines of the school budget.
- To regularly scrutinise pupil work.
- To analyse subject specific progress data in conjunction with assessment co-ordinator and suggest interventions if appropriate.
- To maintain a subject leader file with examples of moderated work across the ability range.
- Review and revise subject action plans on an annual basis to contribute to the school development plan.

Role of the Class Teacher

- To aim to develop science skills with pupils through practical 'hands on' experiences including a multi-sensory approach where appropriate.
- To give all pupils relevant and appropriate challenging activities within their key stage.
- To develop and update skills, knowledge and understanding of science.
- To identify inset needs in science and take advantage of training opportunities.
- To keep appropriate on-going records.
- To plan effectively for science, liaising with co-ordinator when necessary.
- To inform parents of pupils' progress, achievements and attainment.
- To analyse progress data in conjunction with assessment co-ordinator and suggest interventions where appropriate.
- To develop assessment focused around scientific enquiry.

Planning

At White Ash planning is carried out in three stages:

Long Term Planning

- Identifies the main strand and themes to be covered
- Offers an overview to the breath and balance across the curriculum
- Ensures continuity and progression

Medium Term Planning

- Plans in detail what will be taught each half term and are constantly reviewed in line with pupil assessment.
- They will summarise typical activities and show progression in terms of new skills/contexts for practicing existing skills

Short Term Planning

- To aid the teacher and learning support staff in carrying out the lesson
- To show differentiation within the group
- To show links to educational visits etc.

Equal Opportunities

We incorporate science into a wide range of cross curricular subjects and seek to take advantage of multicultural aspects of science. All children have equal access to the curriculum regardless of their gender, ethnicity or learning difficulty. This is monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups.

Resources

- Topic led resources are stored in the central resource area adjacent to the library.
- All resources are categorised according to specific curriculum coverage.
- Each year the science subject leader revises and updates an action plan with resources in mind.
- Within the science budget, money will be allocated to purchase everyday science resources.

Hannah Heyes Science Subject Leader

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Review: September 2027