



Science Policy

MISSION STATEMENT

- To provide a happy safe caring environment for pupils and staff.
- To encourage each child to fulfil their potential.
- To create an environment in which every child's efforts and achievements can be celebrated.
- To develop an inclusive curriculum with enjoyment and excellence at its heart.
- To encourage all children to be independent learners.

RATIONALE

At Acorns we aim to provide quality, fun and engaging learning experiences and ensure that all children have the opportunity to experience and develop learning and skills at an appropriate level, in a safe, but stimulating environment. The indoor and outdoor learning environments provide access to appropriate continuous provision, focused and guided activities which are tailored to meet the varying needs of our children. A sensory diet curriculum has been developed throughout EYFS, KS1 and KS2, to encompass learning needs, styles and adapt our provision accordingly. It is an integral component of our curriculum at Acorns Primary school.

AIMS AND PURPOSE

The National Curriculum for Science aim is to:

- Develop enquiring minds and the ability to question,
- Build on their natural curiosity, and develop language to communicate their findings

- Learn to use equipment safely and sensibly
- Develop links with other subject areas throughout the curriculum
- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- Develop an understanding of the nature, processes and methods of Science through a range of quality learning experiences which help them question and learn about the world around them.
- To equip them with the scientific knowledge required to help them understand the use and implications of Science, today and in the future.

SCIENCE AT ACORNS PRIMARY

Children are naturally fascinated by everything in the world around them and this natural curiosity is what we hope to encourage in our learners through our Science curriculum. We are developing an enticing and engaging learning environment where working in an investigative way can be encouraged and promoted safely. At Acorns our pupils learn best when this curiosity is given time and opportunity to be explored. When they can be given multiple opportunities to interact with their environment and can be shown different ways to explore, engage and question what they find. The skills they begin to develop are key skills such as making observations, predictions and evaluating first hand observations. Working scientifically like this, and having the communication skills to facilitate it are of equal importance to developing knowledge and understanding. Therefore Science is present throughout our curriculum as a whole. It contributes significantly to pupils' enjoyment and

understanding of the world and aids their understanding of their place within it.

Our aim is to make Science accessible to all pupils through either discrete subject teaching, continuous provision or more intrinsically within our Semi formal and PMLD curriculums. We are always striving to offer new opportunities to build on these experiences and develop knowledge and understanding. Therefore at Acorns we develop fun and engaging ways to promote Science inside and outside of the classroom, with a focus on practical work, first-hand experiences in a range of contexts and special events designed to inspire and engage learners.

Acorns has based our teaching on the National Curriculum Programmes of Study and this is particularly helpful with ensuring that there is sufficient breadth and coverage as well as the required fluidity and progression. The programmes of study describe a sequence of knowledge and concepts. While it is important that pupils make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage.

The National Curriculum document for Science sets out a clear, full and statutory requirement for all children. It determines the content of what will be taught, and sets attainment targets for learning. The programmes of study set out what should be taught at Key Stage 1 and 2 and The Foundation Stage programmes of study for Understanding of the World are set out in the EYFS.

Nursery/Foundation Stage

Children enter Reception classes in the September after their fourth birthday. The EYFS in Reception sets out the learning objectives for the seven areas of learning:

- Physical Development
- Expressive Arts and Design
- Personal, Social and Emotional Development
- Literacy
- Understanding of the World
- Communication and Language.
- Mathematics

Key Stage 1 & 2

Pre formal curriculum

These children are considered to be working at a pre subject specific level. The pre-formal curriculum consists of the following areas

1. Speech, language and communication
2. Cognition and learning
3. Sensory and physical
4. Independence and self-help
5. Social, emotional and mental health

Pupils are given the opportunity to access the world through themes in class and special celebrations/ Pupils use their senses to develop awareness of the world and have opportunities to explore the school environment as well as the local area.

Semi formal:

Pupils accessing the semi-formal layer of the curriculum are working on gaining knowledge science and learning to work scientifically. The curriculum and outcomes are written as pre cursers to the National Curriculum ensuring breadth. Science is either taught separately or under the umbrella of “My World”

The Science Curriculum at Acorns has been tailored to meet the wide ranging and diverse needs of our pupils. The National Curriculum Programmes of Study for Science along with EYFS/Early Learning Goals have been used as a foundation and framework for a developmental curriculum which is differentiated to meet the needs and ages of all our pupils. This ensures that pupils are accessing the curriculum at the relevant stage for their development whilst also accessing and experiencing the full range of the National Curriculum as appropriate. An ongoing thread throughout the year (including whole school activities) as well as provision of a range of opportunities for individual development ensures all pupils are working towards appropriate goals.

Formal:

Formal Science is taught through themes to ensure pupils can make links in their learning and remember more. Pupils follow a broad and balanced curriculum and work towards National Curriculum outcomes whilst developing their natural curiosity and scientific enquiry.

Classroom Organisation

Children will be grouped as appropriate for the task in order to encourage flexibility and fluidity:

- Ability groups
- Mixed ability groups
- Mixed ability partners
- Ability partners
- Individuals
- Whole class groups

Resources

Science resources are stored in the outside shed (key 14) and are stored in labelled boxes. All resources should be returned to the correct box when finished with. Advice on available resources and ICT programs available will be available from the subject coordinator.

Assessment

In the Foundation Stage At the end of the foundation stage (reception) children are assessed against the Early Learning Goals. Individual learning journeys are completed, which include a mix of photographic evidence, observations and examples of work. In EYFS, KS1 and KS2 we currently use BSquared/EFL to assess a pupil's progress formally at the beginning and end of each year. Comparing this data allows us to track progress and inform future planning for each child. Evidence For Learning allows us to capture evidence to support this assessment and allows all staff to contribute to the assessment process. It also offers an opportunity to tag Science skills being developed in other curriculum areas. More informal assessment takes place throughout each day through adult observation, assessment tasks and the annotation of pupils work where appropriate. Progress towards National Curriculum Outcomes is tracked and

Recording

Children's recording will take many forms according to the nature of the activity and the ability of the class:

- Verbal
- Pictorial
- Diagrammatic
- Graphical
- Written
- Symbolic
- Photographic

Reporting

Parents are invited to attend an Annual Review to discuss their child's progress and set Annual Review Targets. Parent's evenings are held in the summer term to share achievements and progress. Parents also receive Interim progress reports in the spring term and an Annual Report at the end of each Summer Term. These provide information about attainment in each area and provides photographic evidence to support this. Evidence is also shared via the EFL app.

Equal Opportunities


The Governors and staff are committed to provide the full range of opportunities for all pupils regardless of gender, disability, ethnicity, social, cultural or religious background.

The Role of the Science lead and "My World" team


- To review changes to the National Curriculum requirements with SLT and advise on their implementation throughout EYFS/KS1 & KS2.
- To link with the TLR leads for the semi formal curriculum
- To implement the My World plan.
- Attend relevant CPD courses for Science as appropriate in line with the School Development plan.
- Arrange staff meetings to discuss the continuing development of Science and provide support and INSET where necessary.

- Manage the school's Science resources and organise these resources to ensure that our children can learn effectively in and through Science.
- Monitor the learning and teaching in Science and provide support for staff when necessary.
- Take a lead role in organizing Science Events in school in line with LA and national initiatives.
- Liaise with other GLD schools for moderation and developing the science curriculum.
- Endeavour to involve parents/ carers in their children's learning in and through science.
- Analyse end of unit assessment and progression data in order to set new priorities for development of Science in subsequent years.

Signed By:


..... Headteacher
2022

Date: September


..... Chair of Governors
2022

Date: September

Next Review Date: September 2023