HOLLINS GRUNDY PRIMARY SCHOOL

Happiness, Health and Respect for Confident, Creative Learners

Hollins Grundy Primary School Science Policy

Aims

Through our science curriculum at Hollins Grundy, we aim to teach our children key scientific skills, knowledge and concepts in the following areas:

- Scientific Enquiry
- Life processes of living things
- Physical processes of materials
- Materials and their properties

This focus aims to enable children at Hollins Grundy to build up a body of key foundational knowledge and concepts in these areas which they will build on throughout school. It will allow them to ask, investigate and answer scientific questions through different types of scientific enquiry and seek explanations for concepts and phenomena that occur in the world around them. It will ensure they develop a scientific vocabulary which they will build on throughout school. It will encourage them to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. It will help them understand how science has changed our lives and to understand the uses and implications of science, today and for the future on a personal, local, national and global level. Children will also learn about scientists, inventors and individuals who have had a positive impact on the scientific world. This includes people from different cultural, ethnic backgrounds and genders in order to recognise and promote diversity in the scientific world.

Teaching and learning

At Hollins Grundy, our science curriculum is based on each year groups' curriculum intention grid. These grids cover the National Curriculum requirements for science for each year group. Each grid is split into topics which cover the programmes of study specified in the national curriculum for each year group. The grid also contains the scientific enquiry objectives for each year group. Wherever possible, topics have been planned so they build on the learning from previous year groups and that there is progression. Where possible links are made with other subjects.

Each unit is based on a question or learning challenge to stimulate the children's interest. This is broken down into a series of questions which the children work on over one or more lessons. In the majority of units this includes questions which relate directly to scientific enquiry. These may involve observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources, collecting, analysing and presenting data. The last question allows children to demonstrate their learning through an end of unit application activity. This provides the children with a purpose to their learning as well as providing assessment opportunities.

Children will complete one or two science units a term completing five or 6 units in total. These lessons may be taught weekly or in a block for example every afternoon for a few weeks.

Children complete pre-assessment tasks at the beginning and throughout their science topic to enable staff to assess prior knowledge. We carefully consider each child's starting point and how they learn best to ensure that there are opportunities for children of all abilities, including those with SEND, to develop their scientific skills and knowledge in each unit. Children's work is recorded in their individual science books in Key Stage 1 and 2.

Planning

Each year group has a long term plan which specifies when each unit will be covered. Each unit has a medium term plan outlining National Curriculum objectives and learning challenge questions for each topic. Staff then also have a weekly planner where they plan each learning challenge lesson in more detail, including aspects such as: AfL, planned questioning, use of TA, differentiation, enrichment, timings, resources, vocabulary, Kagan strategies, opportunities for discussion & explanation and opportunities for children to reflect on their learning. Where possible staff try to plan for trips, visits or invite visitors to school to enhance children's learning in science work to provide more of a context and engage them more actively in their learning. We also look for opportunities to use our local nature reserve to enhance learning.

Assessment

Staff assess children in science in a variety of ways such as questioning, discussion with pupils, observation, marking work as a class, as a group or after lessons and planned assessment and application tasks.

In science we have a curriculum intent grid which staff use to assess children's learning in science. This grid is also on our assessment system Sonar. Staff highlight the statements at the end or throughout a unit. They use green if it is achieved, amber if partially achieved or red if not achieved. The statement will remain grey if it has not been taught yet or a child has not been taught the unit due to absence. Each term, staff input an assessment judgement on Sonar for each child. If the child has achieved 80% or more of the objectives taught so far, they will be judged as working Securely At their age-related curriculum. If they are achieving 50-79% of objectives, they will be assessed as Just At and children achieving less than 50% of objectives will be assessed as Working Below. For some children, it may be appropriate to assess them using an assessment grid from a previous year group.

At the end of KS1 and KS2 children are also given a teacher assessment where they will be assessed at working towards or working at the national curriculum for their Key Stage.

Foundation Stage

Reception currently follow the Early Years Framework and Development Matters document. The areas of learning that relate to science are Understanding the World (ELG The Natural World) but there are also some elements in PSED (ELG Understanding Self) and Expressive Arts and Design (ELG Creating with Materials). These are taught through topics such as: planting and growing, animals, space, dinosaurs, seasons, healthy choices and life cycles. Some topics are planned in consultation with the children and are in line with their interests, so they can vary, but they always focus on the ELG goals. Work is recorded in topic books and the class floor book.

Children are assessed through observations, asking questions, discussion and some marking of work. Staff highlight the statements which children have achieved on the curriculum intent grid on

Sonar for the appropriate areas of learning. Summative assessments are then inputted on Sonar half termly using the same language as the rest of the school: securely at, just at and below. At the end of the year, children are assessed as emerging or meeting the early learning goals for Understanding Self, Understanding the Natural World and Creating with Materials. This is inputted on Sonar and submitted following internal moderation.

The science policy was reviewed in September 2026