

Perryfields Primary School
Science - Report to Governors

Sequence of Learning

In EYFS, the learning of Science primarily relates to the following learning areas: developing communication and language; their personal, social and emotional development; and an understanding the world.

In Year 1, children cover the topics Plants, Animals including humans, Materials and Seasonal changes. In Year 2, children cover the topics Living things and their habitats, Plants, Animals including humans, Materials.

In Year 3 children cover the topics Plants, Animals including humans, Rocks, Light, Forces and magnets. In Year 4, children cover the topics Living things and their habitats, Animals including humans, States of matter, Sound and Electricity.

In Year 5, children cover the topics Living things and their habitats, Animals including humans, Materials, Earth and space, and Forces.

In Year 6, children cover the topics Living things and their habitats, Animals including humans, Evolution and inheritance, Light and Electricity.

How is your subject taught in:

EYFS (By different groups, incl. groups, weekly, daily, targeted pupils etc.)

In EYFS, Science is not explicitly taught as a lesson, however it is covered through 'Understanding the world'. Children are given opportunities to be curious and explore simple questions through hands on activities with staff. Children are exposed to a range of new vocabulary e.g. parts of a plant. Science is also taught through books read across the year. Children explore the natural world around them in various ways. For example, they describe what they see, hear and feel whilst outside and the effect of changing seasons on the natural world around. They also make observations and draw pictures of animals and plants. More detail can be found in the EYFS and Science progression documents.

KS1 (By different groups, incl. stable groups, weekly, daily, targeted pupils etc.)

In KS1, Science is taught weekly for approximately 1 hour per week. Pupils sometimes might work in mixed ability or ability groups, dependent on the task. Lessons may involve practical activities or scientific investigations. More able pupils are challenged through questioning during lessons. SEND pupils are supported through differentiated tasks, visuals and adult support. Children are given regular opportunities to recall previous learning through retrieval practise tasks. Scientific vocabulary is displayed in the classroom and referred to during lessons.

KS2 (By different groups, incl. stable groups, weekly, daily, targeted pupils etc.)

In KS2, Science is taught weekly for at least 1 hour per week, depending on the activity (e.g. investigations may take longer). Pupils may work in mixed ability or ability groups dependent on the task. Lessons may involve practical activities, scientific investigations or the use skills linked with other areas of the curriculum, such as reading, writing and maths. More able pupils are challenged through questioning or through differentiated tasks. SEND pupils are supported through differentiated tasks and adult guidance. In addition, at times pupils have the opportunity to complete chilli challenge activities providing them with the opportunity to take ownership of their learning by selecting the challenge. Children are given regular opportunities to recall previous learning through retrieval practise tasks. These may be a discussion using oracy skills as a class or an independent task in books. Pupils are encouraged to use Scientific vocabulary which is displayed in lessons and within the classroom for the current Science topic and referred to during lessons.

How do you assess attainment and progress in your subject? (How do children retain content over time?)

The assessment of Science objectives are covered in a variety of ways.

Teachers assess attainment when marking and use think pinks as a means of moving learning forward or as a means of addressing misconceptions in future learning. Children are also encouraged to traffic light their own work at the end of a lesson this then provides teachers with an indication of individual learner's assessment of their own learning.

The National Curriculum objectives are included in the Knowledge Rich Curriculum (KRC) Planning and Assessment folders. As Science topics are taught, the content covered is highlighted and children are given a teacher assessment of WBS, WTS, EXS and GDS. As further evidence if a child struggles or excels in a particular area of Science a note is made alongside their name and assessment grade. These folders can then be monitored to ensure coverage and progression of learning.

Formative assessment is taken from the marking of books, questioning and contribution to lessons. Teachers provide children with regular opportunities to revisit prior learning (retrieval practise). Children are also given quizzes or end of topic tasks to check what they have understood at the end of a topic, so any misunderstandings can be identified and revisited if required.

Another way children's knowledge can be assessed and retrieval of learning can take place is by children completing a knowledge organiser. This consists of an A3 piece of paper with the headings of key learning from the Science topic where they can record what they have learnt throughout the topic. Children work together as a group to complete their group knowledge organiser, where they are able to share and discuss their learning. Not only does this help to embed learning in Science it provides children with the regular opportunity to use BLP and Oracy Skills. Along with providing teachers with ways to move the learning forward, it also enables the teacher to quickly assess the facts or skills that are missing and that need to be revisited.

Kahoot Quizzes are also used as a form of summative assessment. Children complete these quizzes at the end of a Science topic. Results are then collated and added to the KRC folders as additional evidence of their knowledge in Science.

Report on how well teaching promotes learning, progress and enjoyment for all pupils

- Outcomes of monitoring and evaluation e.g. curriculum audits/ reviews, moderation, learning walks, lesson observations, work scrutiny, pupil voice.
- How well assessment is used to meet the needs of all pupils.
- Homework and extra-curricular activities.
- Changes in policy and practice (e.g. where linked to Ofsted, school plan, SEF, etc.).

Teaching of Science is monitored by book looks and lesson drop ins.

Staff questionnaires completed to identify support and guidance if needed.

There is evidence of differentiation in Science books for example the outcome of the task or the level support given by an adult. All pupils can therefore access the science curriculum even though it may be at different levels. This also ensures children who may require support in other areas of the curriculum can still achieve with their Science learning.

	<p>As previously mentioned teacher assessment is used to identify which pupils have met the key learning objectives in Science and this is recorded in KRC folders. Additional notes are also recorded about individual pupils to support future planning this can then be referred to by the class teacher and future class teachers.</p> <p>Pupil Voice is also used as a means of gathering evidence about the subject. Example questions being What is Science? Why Science important? What do you enjoy about Science?</p> <p>Every year we celebrate Science Week, taking inspiration from British Science Week theme and resources. This academic year we hope to link with World Book Day. Children take part in extra activities such as assemblies, additional science lessons linked to theme, poster competition and a Science Club run by external provider.</p>
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How is Science differentiated to meet the needs of all pupils?

Science is differentiated in many ways. Questioning is adapted so that all children can access the learning. Teachers adapt tasks based on their children's needs to give everyone the opportunity to achieve within science and overcome learning barriers. For example, scaffolding can be used as a means of reducing the amount of writing required or as a means of giving prompts. Word banks and key scientific vocabulary are provided to help children use the appropriate vocabulary. Chilli challenges are also used as a means of children meeting the learning objective by taking ownership of their own learning.

'Think Pink' gap tasks are set to further challenge or enable pupils to address misconceptions. When possible, support staff may be available to help guide necessary pupils with their learning.

Science review and evaluation post Ofsted (April 22)

Science was not a focus in the latest OFSTED report as a focus more on the foundation subjects. Areas of improvement highlighted have been explored within science.

'In some foundation subjects, leaders have not checked how effectively learning in the early years prepares children for key stage 1. Senior leaders should ensure that these checks are completed so that, in every subject, pupils can make the best possible transition between the two phases.' (OFSTED 22)

EYFS is now included in the progression of skills document for Science.

How does Science link with the priorities in the School Development Plan (SDP)

Science is not currently a focus in the SDP. However, Science is monitored throughout the year for planning and assessment. This is done through staff meetings (CPD), monitoring of books, Kahoot quizzes being used and KRC folders.

Next Steps 24-25

- Carry out a pupil voice survey
- Lesson drop-ins and book looks to ensure coverage of the NC, progression.
- Monitor Curriculum knowledge folders – check they are updated, Kahoots are completed along with knowledge organisers.
- Subject leader handbook to be finalised.

Actions completed and Impact from next steps

- PSQM award achieved (valid until 2026)
- Monitored planning and sequence of learning

Next Steps

Lesson Drop ins
Monitor books
Staff meeting