



Settle CE Primary School

Church of England - VC

Science at Settle Primary School 2022 – 2023

Vision:

It is important that pupils can understand and make sense of the world they live in, as it changes and progresses with further advancements. Our science curriculum supports children in this sense making, by evoking curiosity, excitement and a clear understanding through the specific disciplines of biology, chemistry and physics. We understand that many of our pupils will work in careers which do not yet exist, so through a science curriculum that aims to stimulate a lifelong interest in science, we are providing our pupils with the skills and opportunities to succeed in our school and beyond.

Intent:

At Settle CE Primary School, our subject leader is Mrs Ambrose, who is also our Year 5 teacher. At Settle Primary School, we recognise how science impacts every aspect of daily life, and without science, humankind would not have made progress throughout history. As one of the core subjects taught at primary level, we give the teaching and learning of science the prominence it deserves. Our teachers plan lessons to promote awe and wonder of our amazing world. We highly value Science as a core subject and ensure all our children flourish to achieve their potential in STEM subjects.

Learning science is concerned with increasing pupils' knowledge of our world, and with developing skills associated with science as a process of enquiry. Our science curriculum develops the natural curiosity of each child no matter their demographic, encourages them to have respect for living organisms, and instils in pupils the importance of caring for the natural environment.

In 2022 we had a STEM studio built in our grounds to support STEM learning. This purpose built facility enables teachers space and equipment needed to inspire and nurture the children's inquisitive, problem solving skills and knowledge.

We develop vital critical thinking and problem-solving skills through a science curriculum led by an enquiry question, which provides pupils with transferable skills to support them in all areas of life.

Implementation:

At Settle Primary School we have created our own achievable long-term plan/overview of learning based on the National Curriculum outcomes. This has been designed with proficiency to meet the needs of our children whilst ensuring consistency of planning for teachers. This is followed from Years 1- 6 and each year, builds upon previous knowledge learnt using skills from across the curriculum. The scheme emphasises what children have previously been taught as well as their future learning to enable teachers to plan their lessons carefully to ensure that children remember more for longer.

Children have weekly lessons in Science throughout the school totalling 2 hours using various programmes of study and resources to meet the requirements of our long-term plans. To ensure automaticity of recall knowledge in all units of work throughout the year, teachers in Y1-6 use:

- Flashbacks- 4/5 questions based on previous learning to recall previous knowledge. Within a unit of study, these questions help to recall knowledge from their learning in the previous week as well as previous learning in school.
- Knowledge organisers are accessed by all pupils within lessons to support their current, past and future learning. Key vocabulary is accessible here at all times for pupils to check their understanding.
- Quick quizzes - these questions at the start of the unit will assess what the children remember from previous year groups.

In Early Years, Science is taught through the children learning by play. Additional opportunities are provided in Science, such as their special 'find out Friday' session.

Our engagement with the local environment ensures that children learn through varied and first-hand experiences. Much learning takes place outdoors so pupils can investigate their immediate environment. Through various workshops, trips and interactions with experts and STEM ambassadors, children have the understanding that science has changed our lives and that it is vital to the world's future prosperity. Children learn the possibilities for careers in science as a result of our community links and connection with national agencies such as the STEM association.

Impact:

At Settle Primary School children continuously build upon their knowledge in Science helping them to remember more for longer. In order to ensure that children's understanding of the curriculum is progressing, the Science subject leader and the Senior Leadership Team will undertake monitoring and evaluation to ascertain the following:

- Learning journeys are taken from the overview created for our school. Teachers are aware of previous and future learning and thus pitch their lessons at an achievable level for all abilities. The use of Knowledge Organisers is being used to support automaticity within a unit.
- That the training needs of teachers are being met, through termly CPD and more targeted support when required.

Monitoring and evaluation will take the form of informal drop-ins to lessons, conversations with pupils and teachers, pupil and teacher voices and regular book looks.

In order to determine whether children's skills and knowledge are developing in line with the curriculum, children will undertake Knowledge Checks (Flashbacks) at regular intervals, at the start of lessons. These will always be low stakes and children will be encouraged to go back and find the answers in their books if needed.