

Statement of Intent for Science

Our school vision:

'Nurturing God's gifts with compassion and drive so that all our children succeed, learn and thrive.'

Intent:

Why do we teach this? Why do we teach this in the way that we do?

At Grampound Road Village CE School our vision is to provide children with a Science curriculum that excites and engages them, delivering opportunities to investigate and explore the world around them to develop a love of Science and STEM subjects that prepares them for the next stage of their education. We aim to give children exciting, practical experiences that challenge their knowledge, whilst also encouraging them to become confident explorers who ask questions to deepen their own understanding. We aim to develop children's skills, through working scientifically, which can be transferred across the curriculum and into the real world. All of which is underpinned by the aim of equipping them with the knowledge and skills to understand the complex, evolving world that they are growing up in.

The national curriculum for science aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

Implementation:

What do we teach? What does this look like?

At Grampound Road we want our children to acquire the key knowledge identified within each unit of learning outlined in the curriculum and we want to build on this progressively over their time at school.

We ensure that Working Scientifically is embedded throughout each topic, and this is achieved through providing children with plenty of opportunities to develop their natural curiosity and explore in practical, hands-on ways; making observations, carrying out investigations and collecting data from a variety of different sources. We believe that no question is a wrong question, and we aim to ensure all children have a positive attitude towards scientific enquiry and are confident to ask questions to secure their own understanding of scientific concepts.

At **KS1** children explore living things, material and physical phenomena through identifying, describing and comparing living and non-living things, including plants. They explore what animals and humans require to survive and the importance of exercise and nutrition. We develop a greater understanding of the world we live in through identifying and naming a variety of everyday materials and distinguishing the physical properties and uses. We explore practically through squashing, bending and twisting different materials and we record data to support us when answering a question.

At **KS2** children build on their learning from KS1 and explore concepts further, learning about a wider range of living things, materials and physical phenomena. Our Science curriculum is progressive and is used effectively to plan lessons that build on prior knowledge.

We aim to engage children in Science and STEM subjects so that they have a broad awareness of the role that STEM subjects have in society. We recognise the importance of science in our society and children discuss and question issues that may affect their own lives and the direction of society. We encourage children's engagement during British Science Week in which teachers plan and deliver lessons linked to the national theme and to promote STEM across the school. We aim to have Science days at different times in the year to promote science and give children the opportunities to work in house teams across the school and develop their conceptual knowledge, working scientifically skills and team work.

We encourage children to use subject specific vocabulary and we aim to share fictional stories and non-fiction books to excite and engage them in the topic area that we are learning about. Teachers display and use scientific vocabulary within lessons, in the classroom and across the school to encourage children to use and retain the new knowledge that they learn. The children carry out practical investigations and through their questioning, the teachers identify misconceptions and areas of knowledge that need to be addressed.

Mixed year teaching:

At Grampound Road Village C of E Primary School, classes are taught in mixed year classes and teachers differentiate the questions and activities accordingly. We cover the programmes of study set out in the National Curriculum over a two year rolling programme and teachers plan topics effectively to ensure that areas of scientific knowledge are taught within each year group.

Impact:

What will this look like? By the time the children leave the school they will:

The Science curriculum at Grampound Road progressively builds on children's learning to ensure that they have a deep, secure understanding of the skills and concepts taught from KS1 to KS2. We believe that the opportunities that our children have makes sure that every child leaves our school with a secure scientific knowledge and understanding which broadens their horizons and

enables them to become confident, independent life-long learners who will continue to ask questions and be inquisitive about the world.

Documents:

- Progression documents for each year group
- Science curriculum map
- Key vocabulary list
- Marking and feedback policy