Science

Vision and approach for Science	Key Concepts	Content and Sequencing
At Swanmore, our science curriculum encourages children to develop a sense of excitement and curiosity about the world around them, both now and in the future. Through building up a body of key knowledge and concepts, pupils are encouraged to recognise how phenomena can be explained and develop a sense of excitement and curiosity. It is our wish that as children leave Swanmore they are equipped with the knowledge, skills and enthusiasm to continue on their scientific learning journey.	Life Force Changes Reactions Matter Organisation Cause and effect Systems Diversity Variation	Acting as scientists, they will learn skills and knowledge necessary to solve problems, discovering how science can be used to explain what is occurring, predict how things will behave and explore possible causes. Learning is sequenced so that knowledge is built upon each year e.g. knowing that materials can be grouped; understanding that materials can be classed as solids, liquids or gases; knowing that all matter has mass.

Curriculum Drivers

Experiential	Curiosity	Independence	Resilience	Rich in language	Community
Science teaching and learning enables children to understand that Scientists contribute in developing our understanding of the world. Wherever possible, first hand practical experiences are used to engage the children and support retention of concepts. Our curriculum, both in class and during offsite visits, provides opportunities for children to build upon and develop their scientific knowledge.	Science teaching and learning begins with asking questions. Throughout a unit of learning, children are encouraged to question phenomena with a sense of excitement and curiosity.	Through practical experiences, children will have the opportunity to problem solve and reflect on their work to make improvements.	Science teaching strives to enable children to persevere with their learning and the challenge they face. Through a longitudinal study, the children learn to sustain their focus.	By using project related vocabulary, children will become familiar with, and increasingly able to use, scientific vocabulary to describe and explain their findings.	Children will have the opportunity to share their learning. They will work in a practical manner and have the opportunity to participate and contribute in an active way.

Links with Mathematics and English	Progressive	Inclusive
Opportunities to apply their English skills: ➢ Explanations about experiments ➢ Biographies about scientists Opportunities to apply their Mathematics skills: ➢ Data collection and analysis ➢ Rounding, averages	➢ Scientific enquiry will be evident in books. ➢ Evidence of the scientific process will be clear – making predictions using evidence to draw conclusions. ➢ Children can talk confidently at each stage about the big ideas in Science. ➢ Evidence of children applying their understanding after the unit of learning or another subject for example learning about states of matter and then applying this in their own experiments	➢ Task varied to support children to access the task. ➢ Learning is challenging. ➢ Children's starting point are identified using assessment tools and teaching builds on prior knowledge. ➢ The curriculum is practical to engage all. ➢ The outside environment and other resources are used to aid understanding.