Intent of the science curriculum

Fun, engaging lessons with exciting resources	How science impacts and shapes the lives we live	Knowledge of the disciplines of science	Progression of scientific enquiry skills	Understand the uses and implications of science today and in the future

At Ladock School, we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires.

We know that the development and understanding of science and its processes help to shape and determine the world in which we live. Innovation and the development of technology, engineering and an investigation into the natural world all help to progress our society and allow us to lead richer, fuller and more efficient lives. Everywhere around us, on any given day, at any given minute, there is science to be discovered, to be understood, to be developed. We recognise that a vital part of education is to expose our children to every aspect of STEM and to enable them to not only understand the world around them, but to also develop an inquisitiveness for the wonder in our world, to ask questions, to seek answers, to investigate. In essence, we intend to nurture scientists alongside instilling a natural curiosity about the world around us, teaching children to think analytically about situations.

Through our dynamic science sessions, we provide our children with the opportunity to explore the five enquiry types: Identifying, Classifying & Grouping, Fair Testing, Observing, Pattern Seeking and Research using secondary sources. Through these explorations the children develop their knowledge of the nature, methods and processes of science. Our lessons are heavily practical as we know that we can increase children's enjoyment of science through frequent, engaging practical work. Our curriculum is carefully designed to ensure progression throughout the years across mixed-aged classes. National Curriculum objectives across the year groups are carefully woven together thematically to make links between concepts and to ensure that knowledge and skills build without repetition as children move through the school. Prior knowledge forms the basis of the planning of each new topic so that misconceptions can be addressed, any gaps in knowledge re-taught and to enable retrieval within all age ranges. We build opportunities for all of our children to demonstrate their learning in a variety of ways which meets the needs of all age ranges and abilities of children. We introduce children to key scientific vocabulary and seek to extend their grasp on this by enhancing their ability to use these terms both when speaking and writing.

Implementation – Agreed Principles

Teaching Principles	**Teaching Approaches**
• **Planning is carefully mapped across the school to ensure progression of scientific knowledge and concepts alongside working scientifically** • **That opportunities are provided to explore the five enquiry types** • **That there is a focus on learning key scientific vocabulary and using it accurately** • **That using our location and investigating the 'science' around us within our locality** • **That child-led enquiry to aid children to both ask and seek to answer their own questions about the world around them is most effective**	• **Long and medium term plans created by subject leads to ensure progression** • **Specific key vocabulary and scientific terms are taught and tested** • **The use of resources in lessons and getting out into our surroundings to bring science alive.** • **Knowledge organisers used to map lessons and learning** • **Concept cartoons, mind maps, concept maps, kahoot quizzes used to test understanding of taught content** • **Use digging deeper challenges and dreams to consolidate or extend**

Science Long Term Plan

		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year A	**Cuby**						
	Keyne	Animals including humans (senses and body parts)	Animals including humans/Living things and their habitats	Everyday materials	Living things and their habitats	Seasonal changes	Plants
	Ladoca	Rocks	Electricity	Forces and magnets	Forces and magnets	Animals including humans – Nutrition, skeletons and muscles	Living things and their habitats
	Blaise	Light	Electricity	Animals, including humans	Humans	Properties and Changes of Materials	
Year B	**Cuby**						
	Keyne	Everyday materials	Living things and their habitats	Animals including humans	Seasonal changes	Animals including humans	Plants
	Ladoca	Animals including humans – Digestive system	States of matter	Sound	Plants	Light	Light
	Blaise	Living Things and their Habitats: Classification	Evolution and Inheritance	Earth and Space	Forces	Living Things and their Habitats: Life Cycles	

How do we measure the Impact?

Evidence in Science Books	**Discussions with Children during lessons**	**Recap Quizzes at the end of units**
Teacher Assessment	**Elicitation task and Strategies**	**Vocab Acquisition**