Science Statement of Intent:

At Whitley Memorial Primary School, our Christian vision is at the heart of everything we do. We believe that every child, regardless of their starting point, has God-given gifts and talents and it is our role to nurture these so all have the opportunity to let their light shine. This is underpinned by Jesus' words: "In the same way, let your light shine before others, that they may see your good deeds and glorify your Father in heaven." (Matthew 5:16)

At Whitley Memorial Primary School, science holds a central place in the curriculum because it inspires curiosity, wonder and an enduring love of learning about the world. It is valued not only as a subject in its own right but also as a key driver of the skills, attitudes and knowledge that prepare children for their future lives. Science at Whitley Memorial encourages children to see themselves as scientists—capable of questioning, exploring, investigating and explaining the world with confidence. Through practical, hands-on experiences, pupils develop secure scientific knowledge while also building resilience, problem-solving skills and the ability to think critically. Our bespoke approach ensures that science learning is relevant and engaging, making meaningful connections with the children's lives, the local environment and the wider global context.

The school's vision and principles, shaped with staff, pupils and the community, underpin every science lesson, ensuring that children's curiosity is nurtured and their sense of responsibility as global citizens is strengthened. Working scientifically skills are taught explicitly and progressively, enabling pupils to plan and carry out investigations, use scientific vocabulary accurately and apply their mathematical knowledge to collect and analyse data. Enrichment opportunities such as Forest School, visiting scientists, trips and national competitions broaden horizons and bring science to life beyond the classroom. These experiences foster awe, excitement and ambition, helping children to aspire to future opportunities in STEM fields.

Science is also a vital part of children's holistic development. It supports communication and language, encourages teamwork, and promotes respect for different perspectives and ideas. By engaging with science, children learn to care for the planet, understand their role in the world and apply their learning to real-life contexts. At Whitley Memorial, science is therefore not just about knowledge acquisition; it is about empowering children to explore, imagine and shape the future with confidence, responsibility and joy.

Area	Intent	Implementation	Impact
Vision and Principles	To ensure that the vision and principles of Whitley Memorial Primary School underpin all aspects of science teaching and learning. Science is a subject that inspires curiosity, wonder and responsibility for the world, and our principles drive children's engagement and achievement.	The school's vision and science principles, designed in consultation with pupils, staff and wider stakeholders, form the foundation of our science curriculum. These principles are consistently evident in planning, classroom practice, pupil voice and outcomes. They are explicitly shared with staff and pupils, revisited regularly and embedded in teaching sequences so that they are lived and breathed across the school community.	Children view themselves as scientists, showing enthusiasm and confidence in their ability to explore and explain the world around them. They demonstrate pride in their learning and are motivated to use science both in their studies and in their everyday lives.
Teaching and Learning	To deliver high-quality science teaching that follows a clear progression across the school, builds knowledge systematically and develops precise scientific vocabulary. Teaching will nurture enquiry, questioning and problem-solving, equipping children with the knowledge, skills and sense of responsibility to	At Whitley Memorial, effective science teaching takes place through carefully sequenced lessons that promote progression in both substantive knowledge and disciplinary skills. Children engage in practical investigation, problem solving and discovery, building resilience through trial and error. Teachers use and explicitly model scientific vocabulary, supporting children to talk, question, share ideas, make predictions and explain their thinking. Learning is presented in a variety of ways, including written records, diagrams, oral presentations and digital formats, enabling children to express their understanding clearly. Mathematical knowledge is applied meaningfully in science, with children collecting, presenting and analysing data to draw conclusions. Teachers receive supportive mentoring and ongoing professional development to ensure they are confident	Children develop secure scientific knowledge and an enquiring mindset. They are actively engaged in lessons, able to articulate scientific concepts using accurate vocabulary, and demonstrate perseverance and resilience. They apply mathematical skills confidently in scientific contexts and understand their role as responsible citizens in caring for the planet.

	become globally aware citizens.	in subject knowledge and able to address misconceptions effectively.	
Working Scientifically Skills and Enquiry Approaches	To explicitly teach and progressively develop working scientifically skills and enquiry approaches, enabling children to plan, investigate and evaluate effectively.	Working scientifically skills are mapped across the curriculum to ensure clear progression from the Early Years to Year 6. Teachers explicitly teach enquiry skills such as predicting, observing, measuring, recording, interpreting and evaluating. Children are introduced to different enquiry types—including comparative testing, pattern seeking, observing over time, research and fair testing—through carefully planned opportunities each year. Regular practice ensures children develop independence in planning and designing their own lines of enquiry, as well as confidence in evaluating outcomes and recognising limitations.	Children become confident in using a range of enquiry approaches and demonstrate independence in designing, conducting and evaluating investigations. They understand the nature of scientific enquiry and are prepared for the demands of secondary science.
Wider Curriculum	To provide rich opportunities for children to experience science beyond the classroom, deepening their understanding of the natural world and raising aspirations for future science learning and careers.	Science is embedded in wider curriculum opportunities, with Forest School used as a valuable resource for hands-on, outdoor learning. Children engage in science competitions, events and enrichment activities that inspire curiosity and raise cultural capital. Visiting scientists, themed days and curriculum-linked trips provide additional real-world experiences that connect science learning with children's lives and communities.	Children develop a strong sense of curiosity and engagement with the wider world. They are able to apply classroom learning to real-life contexts, show enthusiasm for science beyond lessons and aspire to future opportunities in STEM fields. Their understanding of the world is enriched and broadened through meaningful, memorable experiences.

Assessment in Science	To use assessment purposefully to monitor progress, identify gaps in learning and ensure all children are supported and challenged appropriately. Assessment will inform teaching, provide feedback to pupils and enable leaders to evaluate the effectiveness of the curriculum.	Teachers use ongoing formative assessment within lessons, including questioning, observation and feedback, to check understanding and address misconceptions immediately. Concept and vocabulary recall activities are embedded to strengthen long-term memory and ensure cumulative knowledge. Summative assessments are carried out at key points during the year to track progress against curriculum objectives. Moderation within school ensures consistency and accuracy of judgements. Assessment information is analysed to identify pupils who require additional support, targeted interventions or further challenge. Pupil voice and work scrutiny are used alongside data to evaluate curriculum impact.	Children demonstrate secure and deepening knowledge of scientific concepts and skills, able to recall and apply what they have learned across topics and year groups. Gaps in knowledge are identified and addressed quickly, ensuring all children—including those with SEND and disadvantaged pupils—make good progress from their starting points. Leaders and teachers have an accurate understanding of attainment and progress, which informs curriculum development and drives continuous improvement.