

## Intent, Implementation, and Impact Statement for Science



### Intent

At Highfields, our intent for Science education is to provide all children with a solid foundation of scientific knowledge, skills, and understanding. We want to foster a deep curiosity about the world around them and develop their scientific thinking and investigative skills. Our aim is to inspire and motivate learners, nurturing their interest in scientific concepts and encouraging them to become independent thinkers and problem solvers.

### Implementation

To deliver our Science curriculum, we follow a structured and well-planned approach, ensuring that all key scientific concepts are covered and progress is made across the school. Our implementation strategy includes the following key elements:

#### 1. Curriculum Design and Sequencing

We have carefully designed a comprehensive Science curriculum that aligns with the National Curriculum, encompassing biology, chemistry, physics, and scientific enquiry. Our curriculum is sequenced in a way that builds knowledge and skills progressively; ensuring children can make connections between topics and deepen their understanding over time.

#### 2. High-Quality Teaching and Learning

Our teachers are passionate and knowledgeable about Science, fostering an engaging learning environment where children can explore and apply scientific concepts practically. We provide regular professional development opportunities for the subject lead to ensure that our staff stay up-to-date with the latest scientific research and teaching strategies.

#### 3. Practical and Investigative Science

We prioritise practical and investigative approaches to Science education, allowing children to develop hands-on skills and experience real scientific experiments. We provide opportunities for children to plan, conduct, and evaluate investigations, encouraging them to ask questions, gather evidence, and draw well-reasoned conclusions.

#### 4. Cross-Curricular Links

We actively seek opportunities to integrate Science with other subjects, fostering cross-curricular learning. This approach allows children to recognise the relevance of Science in solving real-world problems, such as linking Science to Geography when studying climate change or Science to Design Technology when exploring materials and their properties.

#### 5. Resources and Facilities

We ensure access to a wide range of high-quality resources, including textbooks, online platforms, and equipment, to support teaching and learning. Our well-equipped Discovery Den and outdoor space provide opportunities for hands-on experiments and observations, creating a stimulating learning environment.

#### 6. Assessment and Feedback

We employ a variety of assessment strategies to track children's progress effectively. Regular feedback enables children to evaluate their own understanding and identify areas for development. This assessment is recorded on Insight.

### Impact

The impact of our Science provision can be seen in multiple ways, including:

#### 1. Student Achievement and Progress

Our children consistently achieve above national expectations in Science assessments and examinations. They apply their scientific knowledge and skills confidently, demonstrating an understanding of the scientific method and the ability to think critically.

#### 2. Engagement and Enthusiasm

Our children display a genuine passion for Science and are actively engaged in their learning. They actively participate in practical activities, ask insightful questions, and readily connect their learning to the world around them.

#### 3. Independence and Problem-Solving

Through our emphasis on scientific inquiry, experimentation, and problem-solving, our children develop independence in their scientific thinking. They can apply their knowledge and skills creatively to solve problems and make informed decisions.

#### 4. Scientific Literacy

Our children acquire a strong foundation in scientific literacy, including the ability to interpret and analyze scientific information. They can discuss and communicate scientific ideas confidently, both in oral and written form.

#### 5. Well-Rounded Citizens

By instilling scientific knowledge, skills, and understanding, we empower our children to become responsible and informed citizens. They can critically evaluate scientific claims and make well-informed decisions that contribute positively to society.

In conclusion, our intent in providing an outstanding Science education is underpinned by our well-planned implementation strategies and the positive impact on our children's achievement, engagement, independence, scientific literacy, and overall personal and social development.