

# Science Action Plan

(2023 - 2024)



## Vision

### **At Knights Enham Junior School we provide...**

'Inclusive and ambitious learning experiences where our school community feels safe and motivated to achieve their best.'

### **'Together We Achieve'**

That all pupils will leave our school with the desire to explore and discover the world around them confidently so that they have a deeper understanding and knowledge of the world we live in. We aim to nurture children's curiosity through practical experiences that inspire questions and inquiry.

## Latest Ofsted Inspection

Summary from Ofsted Inspection (Dec 2018)

### Overall effectiveness Good

- |  |      |
|--|------|
| • Effectiveness of leadership and management   | Good |
| • Quality of teaching, learning and assessment | Good |
| • Personal development, behaviour and welfare  | Good |
| • Outcomes for pupils                          | Good |

### Ofsted Guidance for What the School should do to Improve Further

- Continue to improve the quality of teaching, learning and assessment to ensure that more pupils make strong progress from their starting points.
- Ensure that all teaching provides robust challenges for pupils, particularly those who have the potential to achieve higher standards in reading, writing and mathematics.
- Ensure that all teaching supports pupils with SEND effectively so that they make stronger progress in reading, writing and mathematics.

## Key school Improvements Priorities – linked to School Vision and latest Ofsted report:

### 1. Teaching and Learning

Improving all pupils' attainment and rates of progress from starting points.

1. To continue to raise the **standards of writing** across the school, aiming to improve progress of all children.
2. To continue to develop **assessment for learning** within the planning process, to allow more opportunity for challenge.
3. To continue embedding **early reading** and **phonics across** the school through the school's culture for rigorous reading interventions.

### 2. Curriculum

Creating our own curriculum which is rich, creative, and to be proud of.

1. To continue to embed the **school values** within the school curriculum to **support pupil well-being**.
2. To continue developing rich experiences through **cultural capital** by developing **pupil curriculum passports**.
3. To continue to **evolve the school curriculum** by adapting planning and skills based on last year's outcomes.

### 3. SEND

Meeting the needs of all children to ensure good progress.

1. To continue to develop assessment for learning by identifying gaps for pupils **working below the age-related** expectations.
2. To continue working on **quality first teaching** and **task design** to meet the needs with SEND.
3. To continue to embed the **online systems** to triangulate all the information we record on the progress made by pupils in areas of their learning.

### **Curriculum intent**

In line with the national curriculum for science we aim 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**

Children are taught science weekly through topic based lessons across Upper and Lower KS2.

Working scientifically skills are embedded in the planning to ensure progression of skills and knowledge. Children are given opportunities and encouraged to:

- ask simple questions and recognise that they can be answered in different ways
- observe closely, using simple equipment
- perform simple tests
- identify and classify
- use their observations and ideas to suggest answers to questions
- gather and record data to help answer questions

## 1. Teaching & Learning Subject knowledge

Intent	Implementation	Monitoring	Timescale	Budget	Impact
<p>To develop consistent planning across the school.</p> <p>To ensure children are engaged in well-planned lessons that facilitate progression and development.</p> <p>To improve the level of high quality science being taught in school.</p>	A new medium term planning template has been created and completed by science lead as a guide for teachers planning their lessons.	KC/SLT	Ongoing		All of the National curriculum objectives are being covered by the lessons planned. A range of practical work and investigations have been planned in for each topic.
	A topic cover sheet outlining key vocabulary and intended outcomes to go at the beginning of each topic.	KC Book scrutiny	Half termly		
	Review grids are completed the end of each science topic.	KC Book scrutiny	Half termly		Topic covers changed to include a review section for the children to complete at the end of the topic.
	Science safety audit completed at the start of the year.	KC	Yearly (September 2023)		
To raise the profile of science across the school.	<p><b>British Science Week.</b> Each class to complete an investigation/ enquiry or practical session on this year's theme of <b>Time!</b></p> <p>Each class to complete science based activities this week. KC to provide ideas.</p> <p>Explorify (each teacher to join up) to be used to promote thinking and discussion e.g. Odd one out, Zoom in Zoom out activities across the school.</p>	All teachers	Week beginning 8 <sup>th</sup> March 2024		
To continue to develop <b>assessment for learning</b> within the planning process, to allow more opportunity for challenge.	All staff to assess children's substantive knowledge of the content that has been taught and to provide opportunities for the children to complete investigations so that their disciplinary knowledge/ working scientifically skills can be assessed.	KC	Staff meeting <b>(TBC)</b> Additional investigations during science week Upper and Lower school using ideas form subject co-ordinators' course		

## 2. Curriculum Planning

Intent	Implementation	Monitoring	Timescale	Budget	Impact
<p>To create a broad and balanced science curriculum which fulfils the National Curriculum objectives:</p> <ul style="list-style-type: none"> <li>develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics</li> <li>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</li> <li>are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future</li> </ul>	<p>Medium term plans, key questions, ideas and resources for each have been completed for each year group and are saved in the Science curriculum folder.</p>	<p>KC</p>	<p>medium term plans completed</p>		<p>All of the National curriculum objectives are covered in the planning. Teachers are following the lessons as planned and are tweaking the activities/ resources when appropriate for the needs of their children.</p>
	<p>Opportunities for the children to be working scientifically are outlined in the Medium-Term Plans</p>	<p>KC</p>			
	<p>Resources audited and ordered as needed.</p>	<p>KC</p>	<p>ongoing</p>		
	<p>Ensure planning covers the National Curriculum objectives for each topic allowing for progression across the key stage.</p>	<p>KC</p>	<p>Half termly</p>		<p>NC objectives have been added to the curriculum overviews for each term. These are being assessed by class teachers on INSIGHTS to show coverage and attainment.</p>
	<p>Children take part in engaging investigations and enquiries which develop their understanding of fair testing. Children to make predictions and be able to reflect on their findings.</p>	<p>Book scrutiny, pupil conferencing KC</p>	<p>Termly</p>		
	<p>Children to be given opportunities to work scientifically: planning, recording, measuring, drawing conclusions.</p>	<p>Short term planning KC</p>	<p>Termly</p>		<p>Evidence in books from book scrutiny.</p>
	<p>When possible use outside providers/ experiences e.g. the visiting planetarium</p>				<p>Year 5 Winchester Science Centre Planetarium and space themed workshop Pond dipping with test Valley Rangers. (Yrs 3 &amp;5) River study with Watercress and Winterbourne. (Y4)</p>

					Animal Aid talk (Y5) Secondary school science sessions? Winton or Harrow way?
	Book scrutiny and pupil conferencing	KC	Termly		

### 3. SEN

Intent	Implementation	Monitoring	Timescale	Budget	Impact
<p>Meeting the needs of all children to ensure good progress.</p> <p>To ensure that appropriate differentiation is provided for children with SEND to support with progress.</p> <p>To encourage inclusivity through the delivery of the Science Curriculum.</p>	Differentiate tasks as appropriate.	Book scrutiny	On going		
	Take photographs as evidence to reduce the need for written outcomes.		On going		
	Pre-teach key vocabulary – create mind-maps to aid the children’s understanding		On going		