# **Science Action Plan**

(2023 - 2024)



# <u>Vision</u>

# 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 enspire 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

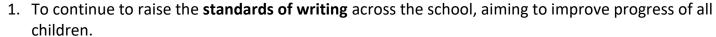
# Ofsted Guidance for What the School should do to Improve Further

- 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

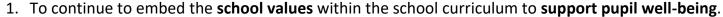
Improving all pupils' attainment and rates of progress from starting points.



- 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.



- 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 agerelated 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

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

2.	Curriculum
	Planning

	Plann	ing			
Intent	Implementation	Monitoring	Timescale	Budget	Impact
To create a broad and Medium term plans, key questions, ideas an		KC	medium		All of the National curriculum
balanced science	resources for each have been completed for each		term plans		objectives are covered in the
curriculum which fulfils the	year group and are saved in the Science curriculum		completed		planning. Teachers are following
National Curriculum	folder.				the lessons as planned and are
objectives:					tweaking the activities/ resources
<ul> <li>develop scientific knowledge</li> </ul>					when appropriate for the needs of
and conceptual understanding	Opportunities for the children to be working	KC			their children.  More evidence of working
through the specific disciplines of biology, chemistry and	scientifically are outlined in the Medium-Term	KC			scientifically. Continue to monitor.
physics	Plans				scientifically. Continue to monitor.
develop understanding of the	Resources audited and ordered as needed.	KC	ongoing		In science cupboard.
nature, processes and methods of science through	Ensure planning covers the National Curriculum	KC	Half termly		NC objectives have been added to
different types of science	objectives for each topic allowing for progression				the curriculum overviews for each
enquiries that help them to answer scientific questions	across the key stage.				term. These are being assessed by
about the world around them					class teachers on INSIGHTS to
are equipped with the					show coverage and attainment.
scientific knowledge required	Children take part in engaging investigations and	Book scrutiny,	Termly		More evidence of working
to understand the uses and implications of science, today	enquiries which develop their understanding of fair	pupil			scientifically. Continue to monitor.
and for the future	testing. Children to make predictions and be able to	conferencing			
	reflect on their findings.	KC Short term	Townslo		Evidence in books from book
	Children to be given opportunities to work scientifically: planning, recording, measuring,	planning	Termly		scrutiny.
	drawing conclusions.	KC			scrutiny.
	When possible use outside providers/ experiences	NC .			Year 5 Winchester Science Centre
	e.g. the visiting planetarium				Planetarium and space themed
	- 0				workshop
					River study with Watercress and
					Winterbourne. (Y4)
					Animal Aid talk (Y5)

			Secondary school science sessions?
			Winton or Harrow way?
Book scrutiny and pupil conferencing		Termly	Completed by KC Summer 1

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

## **Subject Leader Impact Statement**

## **Science**

## 2023-24

How have you used your subject release time?	What has the impact been?	Next Steps:
10.10.23  Primary Core Science Coordinator Network meeting	End of Key Stage assessments ideas for science for knowledge of the content and disciplinary knowledge/ working scientifically.	Need to share exemplification examples with staff for assessing children's work at ARE at the end of each topic.  Use the disciplinary/ working scientifically investigations and resources in both Upper and Lower school – possibly during science week?

16.11.23	Updated action plan	
	Checked LTP and MTPs	Need to upload onto school website
	Completed skills progression document.	
	Downloaded Summative assessment booklets from Moodle Plus	Need to share with teachers at a staff meeting
22.11.23	Uploaded action plan 23-3 and Skills progression document to school Website.	
	Book scrutiny.	Remind staff to trim off any reference to Twinkl! NS marking evident in some books.
	All topic learning journey front pages	Remind staff to ask children to review the topic at the end and write it on the learning journey cover page.
5.3.24	Book scrutiny	Feedback in staff meeting
	Checked curriculum coverage	
	Planned activities for science week	
	Summative assessment booklets	Staff to implement for end of Spring 2 topics

# <u>PLANNER</u>

Use your planner organise your time across the year What will you check and when?
What will you do as a result of your checks?

Date	Task (linked to performance management)	Complete
September	Agreed action plan linked to SIP	✓
	Update subject policy	<b>√</b>
	Check curriculum overviews both Long Term and Medium Term	
	Audit subject stock	<b>✓</b>
	Add all upload action plan and policy on school website	✓
October	Create new subject overview (progress of skills).	✓
	Upload subject overview on website	✓
November	Review all planning. Develop school values and differentiation. Is SEN catered for?	
December	Data analysis from data drop	
January	Review website and add information/ pictures	
	Undertake drop-in-observations and give feedback	
February	Check books/ work sample	✓
	Give feedback in staff meeting	
March	Review action plan	
	Data analysis from data drop	
April	Review all planning. Develop school values and differentiation. Is SEN catered for?	
May	Pupil conferencing	
June	Analysis pupil outcome data for your subject	
July	Review action plan	
	Data analysis from data drop	

Attainment:		Autumn	Spring	Summer
Year 3	GDS			
	ARE			71%
	BARE			26%
Year 4	GDS			
	ARE			79%
	BARE			19%
Year 5	GDS			
	ARE			70%
	BARE			28%
Year 6	GDS			
	ARE			65%
	BARE			35%

## Groups

% of chn. at ARE	Year 3	Year 4	Year 5	Year 6
Boys	69	73	65	74
Girls	73	85	76	59
PP	66	71	62	63
Non PP	82	88	86	67
EAL	78	80	86	75
SEND	57	33	13	30
Non SEND	82	93	96	76

Data Analysis:						
Points to consider for next year:						