



INTENT

At Bramley Sunnyside Junior School we aim to develop children's love and curiosity for science. We aim to inspire the children to have an appreciation that science, and the laws of it, contribute to all aspects of our everyday lives. Our curriculum is planned to promote hands on learning to equip our children with the scientific skills which are needed. .

IMPLEMENTATION

Scientific Enquiry Skills & Working Scientifically

Comparative / fair testing Changing one variable to see its effect on another, whilst keeping all others the same.	
Research Using secondary sources of information to answer scientific questions.	
Observation over time Observing changes that occur over a period of time ranging from minutes to months.	
Pattern-seeking Identifying patterns and looking for relationships in enquiries where variables are difficult to control.	
Identifying, grouping and classifying Making observations to name, sort and organise items.	

Children use a range of enquiry skills to ensure that they can work scientifically throughout the year.

Lesson Structure

- * Subject overviews in books
- * Prior learning to be recapped (previous lesson/previous year)
- * Vocabulary is recapped, taught and expected in children's responses (written and verbal)
- * Ensuring learning is 'sticky' – recapping key points every lesson
- * Lesson are sequential, build on prior learning and work towards a final presentation learning
- * Children know that they are working scientifically
- * LAPs supported by adults, use of word mats to aid responses
- * HAPs challenged with higher level question both verbally and written
- * Team point sheets relevant to topic
- * Children working collaboratively
- * Statistics covered within science using maths objectives for clarity

Assessment

- * Knowledge harvests (prior and post)
- * Presentation of learning
- * Planning sheets/marking and feedback sheets (BDE of LO)
- * Concept cartoons
- * Push on Ch who are GD in maths same as science – Achieving GD in science document

Science at Bramley Sunnyside Junior School

Collaboration – Confidence – Creativity

Scientific enquiry skills (taken from LOs and colour coded re Blooms)

Year 3		Year 4		Year 5		Year 6	
Words	Phrases	Words	Phrases	Words	Phrases	Words	Phrases
Identify Describe Investigate Explore Recognise Compare Notice Observe Group Predict	Find patterns	Recognise Explore Describe Identify Observe Construct	Use classification keys Construct and interpret Compare and group Find patterns	Describe Know Demonstrate Explain Identify Name	Compare and group Use knowledge of Give reasons Use the idea that	Describe Identify Recognise Explain Demonstrate Use Compare Associate	Give reasons Use the idea that...

How to support SEND and lowest 20% readers

- ✿ Pre-teach vocabulary
- ✿ Words mats
- ✿ Tasks adapted where necessary i.e drawings instead of words
- ✿ Learning coach or teacher available for the group
- ✿ Mixed ability groups where appropriate
- ✿ Sentence starters
- ✿ Explorify starter tasks to help the children verbalise what they want to say
- ✿ Video clips
- ✿ Help sheet in books

Deepening understanding for greater depth/mastery students

- ✿ Questions from Blooms grid i.e give reasons for, explain, demonstrate...
- ✿ Practical tasks with little input and alternative resources i.e electricity – making a switch with paper, foil and a paper clip
- ✿ Explorify tasks to depend understanding i.e odd on out so the children can have the opportunity to develop their own explanations with links to real life contexts

What an end of key stage expected child looks like:

The child is able to:

- ✿ use appropriate scientific language whilst making links from science taught to real life.
- ✿ articulate and evaluate their own ideas as well as others using their own knowledge as well as knowledge from a range of sources.
- ✿ seek information outside of the classroom and is able to apply this to learning.

The child leaves as a curious scientist ready to ask big questions about the topic.



Science at Bramley Sunnyside Junior School

Collaboration – Confidence – Creativity

