



Topic:	Light		Strand:	Physics		
<p>Be Brilliant CULTURAL DIVERSITY</p> <p>Enables our children to develop a growth mindset, by exposure to challenging experiences that allow our children to question and explore opportunities that will enable them to become confident and resilient in all areas of their lives.</p>	Sequence of lessons		Outcome		Working Scientifically skills	
	<p>Be Brilliant CULTURAL DIVERSITY</p> <p>Enables our children to develop a growth mindset, by exposure to challenging experiences that allow our children to question and explore opportunities that will enable them to become confident and resilient in all areas of their lives.</p>	1	<p><u>As Scientists we are learning to explore our previous knowledge</u></p> <p>Never heard the word, knowledge organiser quiz and knowledge harvest.</p>	Children can identify previous knowledge that can support learning in this topic.		Asking questions
	<p>Believe POSSIBILITIES</p> <p>Allows our children to explore the world around them, knowing that the experiences they gain will enhance their lives and open doors to new adventures.</p>	2	<p><u>As Scientists we are learning to answer the question "what is light?"</u></p> <p>Observe objects in different amounts of light and describe how we can see.</p>	Children understand that darkness is the absence of light and can identify different light sources.		Research Asking questions
	<p>Believe POSSIBILITIES</p> <p>Allows our children to explore the world around them, knowing that the experiences they gain will enhance their lives and open doors to new adventures.</p>	3	<p><u>As Scientists we are learning how some materials can reflect light.</u></p> <p>Investigate shiny and reflective surfaces, exploring their effect on light, considering their uses.</p>	Children can identify reflective materials and describe how it affects light.		Problem solving Observation Evaluation
	<p>Be Brave ADVENTURE</p> <p>Exposes our children to a rich and diverse world that is full of colour, music, creativity and celebration. Providing our children with the opportunity to see a world beyond their own, that will inspire and influence their future choices.</p>	4	<p><u>As Scientists we are learning to explore how different materials can effect light.</u></p> <p>Use light boxes to test different materials, exploring how much light they let through.</p>	Children can identify materials that are opaque, translucent or transparent.		Comparative Recording data Evaluation
	<p>Be Brave ADVENTURE</p> <p>Exposes our children to a rich and diverse world that is full of colour, music, creativity and celebration. Providing our children with the opportunity to see a world beyond their own, that will inspire and influence their future choices.</p>	5	<p><u>As Scientists we are learning about shadows.</u></p> <p>Investigate how shadows change as a light source varies its distance from an object.</p>	Children can explain what a shadow is and describe how it can change based on a variety of conditions.		Pattern seeking Observation Recording data
	<p>Be Brave ADVENTURE</p> <p>Exposes our children to a rich and diverse world that is full of colour, music, creativity and celebration. Providing our children with the opportunity to see a world beyond their own, that will inspire and influence their future choices.</p>	6	<p><u>As Scientists we are learning how to protect our eyes.</u></p> <p>Explore the effectiveness of sunglasses and learn about the dangers of the sun.</p>	Children understand why and how we protect our eyes and can identify sunglasses to support this.		Observation over time Making predictions Evaluation
<p>Composite</p> <p>Design their own sunglasses that will be suitable to take on a summer holiday, with an information leaflet explaining why they are important.</p>						



Topic:	Rocks and soil	Strand:	Chemistry
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Sequence of lessons	Outcome	Working Scientifically skills
<p>Be Brilliant Enables our children to develop a growth mindset, by exposure to challenging experiences that allow our children to question and explore opportunities that will enable them to become confident and resilient in all areas of their lives.</p>	<p>1 <u><i>As Scientists we are learning to explore our previous knowledge</i></u> Never heard the word, knowledge organiser quiz and knowledge harvest.</p>	Children can link previous knowledge. Asking questions
<p>Believe Allows our children to explore the world around them, knowing that the experiences they gain will enhance their lives and open doors to new adventures.</p>	<p>2 <u><i>As Scientists we are learning about the different types of rock.</i></u> Explore the types of rock and examples from each, considering their properties.</p>	Children know the types of rock and can name an example from each. Research Communication
<p>Possibilities Allows our children to explore the world around them, knowing that the experiences they gain will enhance their lives and open doors to new adventures.</p>	<p>3 <u><i>As Scientists we are learning to investigate the properties of rocks.</i></u> Investigate the properties of different rocks through strength, absorption and reaction.</p>	Children can investigate the properties of rocks and use this to provide features of different rock types for sorting. Comparative Setting up tests Recording data
<p>Adventure Exposes our children to a rich and diverse world that is full of colour, music, creativity and celebration. Providing our children with the opportunity to see a world beyond their own, that will inspire and influence their future choices.</p>	<p>4 <u><i>As Scientists we are learning to classify rocks in our local environment.</i></u> Find examples of different rocks in the local environment and classify them based on their learning to create a rock museum.</p>	Children can classify rocks into their type using their properties. Identifying, grouping and classifying Observation Communication
	<p>5 <u><i>As Scientists we are learning about fossils.</i></u> Learn how fossils are formed and how Mary Anning contributed to this understanding.</p>	Children understand the process of how a fossil is made. Research Asking questions
	<p>6 <u><i>As Scientists we are learning to investigate soils.</i></u> Explore what soil is made of, its layers and how it can change depending on what is in it.</p>	Children know what soil is and can name its layers. Identifying, grouping and sorting Communication Evaluation

Composite: Children to create a wormery to showcase soil learning.



Topic:

Animals including humans

Strand:

Biology

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Believe
Allows our children to explore the world around them, knowing that the experiences they gain will enhance their lives and open doors to new adventures.

Bebrave
Exposes our children to a rich and diverse world that is full of colour, music, creativity and celebration. Providing our children with the opportunity to see a world beyond their own, that will inspire and influence their future choices.

Sequence of lessons

Outcome

Working Scientifically skills

1	<u>As scientists we are learning to explore our previous knowledge</u> Never heard the word, knowledge organiser quiz and knowledge harvest.	Children can identify previous knowledge that can support learning in this topic.	Asking questions
2	<u>As scientists we are learning about why living things need food.</u> Consider why living things need food and research the diet of animals in the local environment.	Children can identify the diets of local animals and explain why they need to eat food.	Research Asking questions Communicating data
3	<u>As scientists we are learning to identify different bones.</u> Explore the skeletons of the human body and name key bones.	Children draw or make a human skeleton, labelling key bones.	Research Communicating data
4	<u>As scientists we are learning about the functions of bones.</u> Explore the skeletons of different animals and compare to humans, finding similarities. Investigate the functions of different bones, exploring those that support, aid movement and those that protect.	Children identify the functions of different bones to support, aid movement and protect.	Classifying and grouping Asking questions
5	<u>As scientists we are learning the functions of muscles.</u> Discover the different muscles in the body and how they work.	Children create a model or diagram to show how biceps and triceps work.	Research Communicating data
6	<u>As scientists we are learning to investigate an enquiry question.</u> Children create their own investigation to answer the question 'do people with the longest legs jump the furthest?'	Children design and carry out an investigation to answer the enquiry question.	Pattern seeking Setting up tests Observation and measuring Evaluation

Composite: Create a rhyme or dance about the bones in our body.



Topic:	Plants	Strand:	Biology
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Be Brilliant
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POSSIBILITIES
 Allows our children to explore the world around them, knowing that the experiences they gain will enhance their lives and open doors to new adventures.

Believe
 Allows our children to explore the world around them, knowing that the experiences they gain will enhance their lives and open doors to new adventures.

ADVENTURE
 Exposes our children to a rich and diverse world that is full of colour, music, creativity and celebration. Providing our children with the opportunity to see a world beyond their own, that will inspire and influence their future choices.

Bebrave
 Exposes our children to a rich and diverse world that is full of colour, music, creativity and celebration. Providing our children with the opportunity to see a world beyond their own, that will inspire and influence their future choices.

Sequence of lessons	Outcome	Working Scientifically skills
1 <i>As scientists we are learning to explore our previous knowledge</i> Never heard the word, knowledge organiser quiz and knowledge harvest.	Children can identify previous knowledge that can support learning in this topic.	Asking questions
2 TO BE CARRIED OUT BEFORE SCIENCE BLOCK <i>As scientists we are learning to explore the requirements of plants to live and grow.</i> Design and set up an investigation into what plants need to live and grow by planting peas in different conditions. These will be measured at regular intervals over a period of some weeks, recorded during this and concluded in this lesson.	Children create an investigation into what plants need to live and grow, predicting the outcome, recording measurements and using these to reach a conclusion.	Pre-lesson LI: Change over time Prediction Setting up tests Lesson LI: Changes over time Interpreting data
3 <i>As scientists we are learning to identify the parts of a plant.</i> Explore the parts of plants and identify examples of each.	Children identify the parts of a plant and can give known examples of each.	Classifying and grouping Asking questions Observation
4 <i>As scientists we are learning about the functions of the stem.</i> Investigate different stems and explore how water is transported.	Children can identify the functions of the stem, carrying out an investigation into	Changes over time Setting up tests
5 <i>As scientists we are learning the parts and functions of a flower.</i> Dissect real flowers, discovering the parts and identifying them.	Children can identify the parts of a flower.	Classifying and grouping Observation
6 <i>As scientists we are learning to research pollination and seed dispersal.</i> Research pollination and the types of seeds that can be found in the local environment and how they disperse.	Children understand the process of pollination and how seeds are dispersed.	Research Communicating

Composite: To plant our own plants around the school.





Topic:

Forces and magnets

Strand:

Physics

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Believe  **POSSIBILITIES**
Allows our children to explore the world around them, knowing that the experiences they gain will enhance their lives and open doors to new adventures.

Be brave  **ADVENTURE**
Exposes our children to a rich and diverse world that is full of colour, music, creativity and celebration. Providing our children with the opportunity to see a world beyond their own, that will inspire and influence their future choices.

Sequence of lessons

Outcome

Working Scientifically skills

1	<u>As Scientists we are learning to explore our previous knowledge</u> Never heard the word, knowledge organiser quiz and knowledge harvest.	Children make links with what they have learned previously.	Asking questions
2	<u>As Scientists we are learning about magnetism and what it is used for.</u> Explore what magnetism is and its different uses for magnets in every day life	Children know what magnetism is and can name its uses.	Observation Explanation
3	<u>As Scientists we are learning about attraction and repulsion.</u> Discover attraction and repulsion through tinkering and discover the reasons for this.	Children know and use the terms 'attraction' and 'repulsion'.	Exploration Observation
4	<u>As Scientists we are learning which materials are attracted to magnets.</u> Discover which materials are attracted to magnets, recording their findings. Can they solve a real-life problem using this knowledge?	Children know which materials are attracted to magnets and can use this to suggest and answer to a problem.	Classification Prediction Recording
5	<u>As Scientists we are learning about which materials magnets can attract through.</u> Explore which materials magnets can attract through. Can they make a fridge magnet using their findings?	Children can identify materials that magnets can attract through.	Comparative Setting up tests
6	<u>Composite: As Scientists we are learning about how magnetism can be used to help solve a problem.</u> Create a homemade compass using magnetism.	Children create their own compass using magnetism and can explain how this works.	Problem-solving Communication Evaluation

Composite:
Create a homemade compass using magnetism