



Topic:	Earth and space	Strand:	Physics
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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.

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.

Be brave
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><i>As Scientists we are learning to explore our previous knowledge</i></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><i>As Scientists we are learning about the planets of the solar system.</i></u> Create a 'solar system in my pocket' and playdough planets.	Children can identify and name the planets of the solar system.	Research Asking questions Recording
3	<u><i>As Scientists we are learning to investigate how human's ideas about the solar system has changed over time.</i></u> Research how theories have changed about the solar system over time.	Children know how scientists' views have changed over time and how these have led to our understanding today.	Research Asking questions Communicating
4	<u><i>As Scientists we are learning about the planetary orbits in our solar system.</i></u> Carry out an investigation exploring how long it takes an object to make a complete orbit around a person on different lengths of string.	Children understand what an orbit is and can match each planet to their orbit time.	Comparison Observation Results
5	<u><i>As Scientists we are learning about the phases of the moon.</i></u> Create a model to show the phases of the moon.	Children draw and name the phases of the moon.	Observation over time Asking questions Observation Communication
6	<u><i>As Scientists we are learning... is the Earth flat?</i></u> Use shadows to explore the evidence of the shape of planet Earth.	Children understand that the Earth is a sphere and can give evidence why.	Pattern seeking Making predictions Observation Communication
7	<u><i>As Scientists we are learning about how the sun moves through the sky.</i></u> Explore the angle of a light source as it moves.	Children understand why it is hotter in the middle of the day and relate this to seasons.	Pattern seeking Observation Evaluation

Composite: Children use their knowledge to create an experiment about the Solar System



Topic: Forces **Strand:** Physics


Sequence of lessons		Outcome	Working Scientifically skills
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.	Children can identify previous knowledge that can support learning in this topic.	Asking questions
2	<u><i>As Scientists we are learning to identify forces.</i></u> Identify and label gravity and resistance forces, identifying balanced and unbalanced forces.	Children have labelled diagrams showing various balanced and unbalanced forces.	Research Asking questions
3	<u><i>As Scientists we are learning to identify and explain the effects of friction.</i></u> Discover different resistances and carry out an investigation to explore air resistance.	Children carry out an investigation, discovering the effects of resistance on objects.	Change over time Prediction
4	<u><i>As Scientists we are learning to identify and explain the effects of different resistances.</i></u> Discover different resistances and carry out an investigation to explore air resistance.	Children carry out an investigation, discovering the effects of gravity and air resistance.	Comparative testing Observing and measuring
5	<u><i>As Scientists we are learning about how mechanisms can allow a small force to have a larger effect.</i></u> Explore levers and pulleys, investigating their effect.	Children carry investigate how levers and pulleys work and can explain the effect on forces.	Comparative testing Communicating results
6	<u><i>As Scientists we are learning to discover the effect of gears on forces.</i></u> Investigate gears and how they work.	Children have explored gear ratios and know how this helps people to ride a bicycle.	Pattern-seeking Recording data


Composite
Children interview each other on opposing forces




Topic: Living things and their habitats

Strand: Biology

Be Brilliant  **CULTURAL DIVERSITY**
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.

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><i>As Scientists we are learning to explore our previous knowledge</i></u> Never heard the word, knowledge organiser quiz and knowledge harvest.	Children make links with what they have learned previously.	Asking questions
2	<u><i>As Scientists we are learning about life cycles in animals and plants.</i></u> Children research life cycles of select animals and plants.	Children know what a life cycle is and can explain chosen examples.	Research Asking questions
3	<u><i>As Scientists we are learning how animals change over time.</i></u> Children observe how insects, butterflies, a mammal, etc change over time by having them in class and recording their growth.	Children can explain what happens to certain animals as they grow.	Observation over time. Observation. Recording data
4	<u><i>As Scientists we are learning how animals change over time.</i></u> Children observe how insects, butterflies, a mammal, etc change over time by having them in class and recording their growth.	Children know how types of animals change over time.	Observation over time Observation Recording data
5	<u><i>As Scientists we are learning to set up tests to investigate the types of reproduction in plants.</i></u> Plant a variety of plants from cuttings, seeds and bulbs and grow them over time to explore the ways plants can reproduce..	Children can identify ways that plants can reproduce.	Classification Setting up tests
6	<u><i>As Scientists we are learning about reproduction in plants.</i></u> Explore the plants from the previous lesson to find out how they have grown.	Children know how plants reproduce.	Research / Pattern-seeking Observation Recording data

Composite
Care for a class pet or grow plants to get fruit.