

Science Long Term Plan – Curriculum Map

The science curriculum at Kingswood Parks matches the breadth and ambition of the National Curriculum. The key substantive and disciplinary knowledge has been mapped out so teachers know precisely what to teach and when, can demonstrate a logical progression and can cite how new knowledge and skills build upon what has been taught before. Scientific vocabulary is mapped out so that teachers know precisely what to teach and when. This is in a logical progression so that vocabulary development builds over time. End points have been defined as curricular goals which pupils will work towards. These end points are progressive and enable pupils to apply their knowledge and skills in an open-ended, measurable way which teachers can then assess against. Curriculum plans are adapted to meet the needs of SEND pupils as well as providing pupils with opportunities to deepen their understanding through challenging outcomes which are not limiting. Provision for SEND pupils is personalised for individuals and strategies used will be indicated in planning. We endeavour to educate our children in how science can be seen in real life and how knowledge of science links to future careers.

EYFS – Foundation Stage 1

Animals Including Humans	Plants	Everyday Materials
<p>Key Concept – Animals Big Question: How does a butterfly grow and change? Curricular Goal Pupils can talk about the changes they observe as they watch a caterpillar grow into a butterfly</p>	<p>Key Concept – Parts of a Plant Big Question: What happens to a seed when it is planted? Curricular Goal Pupils can talk about the changes they observe after they have planted a seed and watch a plant grow</p>	<p>Key Concept – Change Big Question: How do porridge oats feel before and after water is put on them? Curricular Goal Pupils can use their sense of touch to explore materials and talk about how they are different Pupils can talk about what they see, hear and feel when playing with different toys Pupils can talk about what happens when they push and pull an object</p>

EYFS – Foundation Stage 2

Animals Including Humans	Plants	Everyday Materials	Seasonal Change	All Living Things and their Habitats
<p>Key Concept – Animals Big Question: Why are animals' different colours depending on where they live? Curricular Goal Pupils can talk about different animals both in the natural world around them and in other contrasting environments.</p>	<p>Key Concept – Parts of the Plant Big Question: Does a seed need soil to grow? Curricular Goal Pupils can describe what they observe as a seed grows into a plant. Pupils can describe what a plant needs to be healthy. Pupils can explore planting seeds in different places</p>	<p>Key Concept – Change/ Materials Big Question: How can we rescue the animal that is trapped in the ice? Curricular Goal Pupils can talk about what they observe when ice is melting in different places Pupils can explore the strength of materials when building a house for the Three Little Pigs Pupils can explore floating and sinking when making a boat for a Pirate</p>	<p>Key Concept – Change Big Question: Would you wear a woolly hat in the summer time? Curricular Goal Pupils can name the seasons and describe some changes to the natural world as the seasons change</p>	<p>Key Concept – Habitats Big Question: Do all places look the same as here? Curricular Goal Pupils can describe different environments explaining some similarities and differences between them and can compare them to where they live.</p>

Year 1

Animals Including Humans	Plants	Everyday Materials	Seasonal Change	
<p>Key Concept – Parts of the Body Big Question: What does my body do? Curricular Goal To be able to create a model of the human body, label the parts and link to the senses To be able to classify animals according to their animal groups</p>	<p>Key Concept – Parts of a plant Big Question: Are all plants the same? Curricular Goal To be able to make observations of plants and know and name the main parts of them</p>	<p>Key Concept – Properties of Materials Big Question: How do I stay dry? Curricular Goal To be able to make a waterproof house using a range of materials</p>	<p>Key Concept – Change Big Question: How does the world change during different seasons? Curricular Goal To be able to walk around the local area describing and record seasonal changes</p>	

Year 2

Animals Including Humans	Plants	Everyday Materials		All Living Things and their Habitats
<p>Key Concept – Lifecycles Big Question: How do animals and humans grow? Curricular Goal To be able to describe how I become a healthy person. To be able to describe the lifecycles of chicks and humans and know how they are different</p>	<p>Key Concept – Plants needs Big Question: What plants need to grow? Curricular Goal To be able to grow a sunflower recognise what it needs in order to become a healthy plant</p>	<p>Key Concept – Properties of Materials Big Question: Why do we use certain materials for different uses? Curricular Goal To be able to select the correct materials to make a teabag</p>		<p>Key Concept – Food Chains Big Question: What is a food chain? Curricular Goal On a walk around the local area can you list things by sorting into living, dead and never lived To be able to create a woodlice habitat and explain the choices made</p>

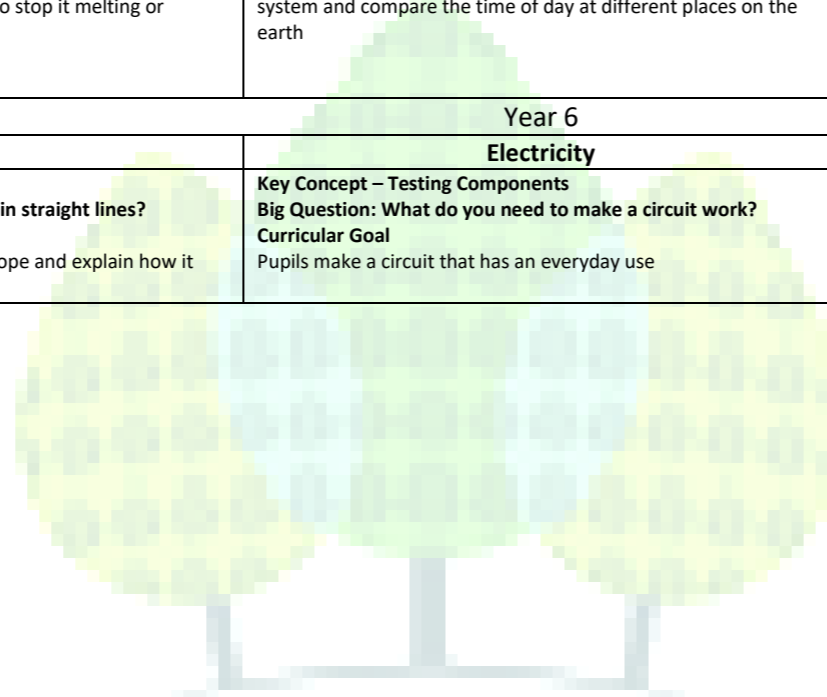
Year 3

Animals Including Humans	Plants	Rocks	Forces	Light
<p>Key Concept – Healthy Bodies Big Question: Why do I need to keep my body healthy? Curricular Goal To be able to keep a food diary and describe how this is different to an athlete. To be able to complete a jigsaw of the human skeleton and muscular system</p>	<p>Key Concept – Water transportation in plants Big Question: How does water move through a plant? Curricular Goal To be able to grow a carnation plant and devise an investigation and make observations of how ink is transported through plants and into the flower</p>	<p>Key Concept – Rocks and soils Big Question: How is our Earth constructed? Curricular Goal To be able to group together different kinds of rocks and explain why</p>	<p>Key Concept – Forces in motion Big Question: Do all magnets behave in the same way? Curricular Goal To be able to explain on which surface a car travels the fastest To be able to investigate different size and strengths of magnets and how these attract or repel a paper clip To be able to describe and construct how to make a simple pulley</p>	<p>Key Concept – Shadows Big Question: How do you make a shadow? Curricular Goal To be able to construct and investigate how to make a shadow puppet theatre</p>

Year 4

Animals Including Humans	States of Matter	Electricity	Sound	All Living Things and their Habitats
<p>Key Concept – Digestion and teeth Big Question: Are all digestive systems the same? Curricular Goal To be able to compare and contrast the impact of different substances on teeth in humans and other animals To be able to compare and contrast the digestive system of an owl and a human</p>	<p>Key Concept – Melting points and the water cycle Big Question: How does my washing dry? Curricular Goal To be able to compare and contrast which materials have a higher melting point and explain why To be able to compare and contrast how quickly water evaporates from different sized containers</p>	<p>Key Concept – Constructing circuits Big Question: Why does my light come on when I turn on the switch? Curricular Goal To be able to make a complex circuit coding using a crumble kit to make a toy move, light up or make a sound</p>	<p>Key Concept – Hearing Big Question: How do we hear sound? Curricular Goal To be able to design and test the best possible telephone and suggest reasons for improvements</p>	<p>Key Concept – Classification Big Question: How do animals stay safe in their habitats? Curricular Goal To be able to compose a poster about a hedgehog that demonstrates an understanding of the habitat and what it needs to live safely</p>

Year 5				
Animals Including Humans	Properties and changes in the materials	Earth & Space	Forces	All Living Things and their Habitats
Key Concept – Gestation in the animal kingdom Big Question: Who has the shortest gestation period? Curricular Goal To create a presentation indicating the stages of growth in humans and other animals	Key Concept – changes of state Big Question: Are all materials the same? Curricular Goal Investigate, which materials would be most effective for making a warm jacket for wrapping ice cream to stop it melting or making black out curtains	Key Concept – Our place in the solar system Big Question: Is anybody out there? Curricular Goal To be able to name and explain where the planets are in solar system and compare the time of day at different places on the earth	Key Concept – Gravity Big Question: How does gravity affect different forces? Curricular Goal Curricular Goal 1: Design and make a parachute Curricular Goal 2: Create an investigation to test which shape boats travels best in water Curricular Goal 3: Make a moving toy using pulleys or levers	Key Concept – Life Cycles Big Question: What animal? What habitat? Curricular Goal Describe the differences in life cycles between the different types of animals. To be able to describe and explain how plants and animals reproduce
Year 6				
Animals Including Humans	Light	Electricity	Evolution and Inheritance	All Living Things and their Habitats
Key Concept – Heart Health Big Question: How does a healthy lifestyle create a healthy heart? Curricular Goal To be able to describe and explain how to keep you heart healthy	Key Concept – How light travels? Big Question: Does light always travel in straight lines? Curricular Goal To be able to design and make a periscope and explain how it works	Key Concept – Testing Components Big Question: What do you need to make a circuit work? Curricular Goal Pupils make a circuit that has an everyday use	Key Concept – Adaptation Big Question: Why are we here? Curricular Goal Choose an animal and explain how they have adapted to their environment	Key Concept – Classifying Big Question: What makes living things different? Curricular Goal: Pupils design and explain a way to classify a range of living things



Kingswood Parks

PRIMARY SCHOOL