

Science Progression Grid Class 5- 6

Cycle 1

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p style="text-align: center;">Living things and their habitats (6)</p> <p style="text-align: center;">Focusing on classifying plants</p>	<p style="text-align: center;">Light (3)</p> <p style="text-align: center;">Focusing on light and shadows.</p>	<p style="text-align: center;">Evolution and inheritance (6)</p> <p style="text-align: center;">Focusing on evolution.</p>	<p style="text-align: center;">Forces (5)</p> <p style="text-align: center;">Focusing on gravity</p>	<p style="text-align: center;">Electricity (6)</p> <p style="text-align: center;">Focusing on changes in circuits</p>	<p style="text-align: center;">Animals including humans (6)</p> <p style="text-align: center;">Focusing on the circulatory system.</p>
<p>What do we want children to know and remember? (Knowledge, skills and vocab – vocabulary is shown in bold, minimum learning highlighted in yellow)</p> <p>FOCUS</p> <ul style="list-style-type: none"> • Give reasons for classifying animals based on their similarities and differences • Identify the characteristics of different types of animals • give reasons for classifying plants and animals based on specific characteristics. <p>RECAP</p> <ul style="list-style-type: none"> • describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals; 	<p>What do we want children to know and remember? (Knowledge, skills and vocab – vocabulary is shown in bold, minimum learning highlighted in yellow)</p> <p>FOCUS</p> <ul style="list-style-type: none"> • recognise that they need light in order to see things and that dark is the absence of light; • notice that light is reflected from surfaces; • recognise that light from the sun can be dangerous and that there are ways to protect their eyes; • recognise that shadows are formed when the light from a light source is blocked by an opaque object; • find patterns in the way that the size of shadows change. 	<p>What do we want children to know and remember? (Knowledge, skills and vocab – vocabulary is shown in bold, minimum learning highlighted in yellow)</p> <p>FOCUS</p> <ul style="list-style-type: none"> • Explain the scientific concept of inheritance. • Demonstrate an understanding of the scientific understanding of adaptation. • recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago; <p>RECAP</p> <ul style="list-style-type: none"> • recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents (inheritance, genes, DNA) 	<p>What do we want children to know and remember? (Knowledge, skills and vocab – vocabulary is shown in bold, minimum learning highlighted in yellow)</p> <p>FOCUS</p> <ul style="list-style-type: none"> • identify forces acting on objects • explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object; <p>RECAP</p> <ul style="list-style-type: none"> • identify the effects of air resistance, water resistance and friction, that act between moving surfaces; • recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect 	<p>What do we want children to know and remember? (Knowledge, skills and vocab – vocabulary is shown in bold, minimum learning highlighted in yellow)</p> <p>FOCUS</p> <ul style="list-style-type: none"> • use recognised symbols when representing a simple circuit in a diagram. • explain the importance of the major discoveries in electricity • Explain the effects of differing volts in a circuit • Conduct an investigation, record my data and report my findings. <p>RECAP</p> <ul style="list-style-type: none"> • associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit; 	<p>What do we want children to know and remember? (Knowledge, skills and vocab – vocabulary is shown in bold, minimum learning highlighted in yellow)</p> <p>FOCUS</p> <ul style="list-style-type: none"> • identify and name the main parts of the human circulatory system • label the parts of the circulatory system on a diagram of the human body. • understand and explain the functions of the heart, blood vessels, blood, arteries, veins, oxygen, lungs. <p>RECAP</p> <ul style="list-style-type: none"> • recognise the impact of diet, exercise, drugs and lifestyle

<ul style="list-style-type: none"> • describe and investigate harmful and helpful micro-organisms 	<ul style="list-style-type: none"> • To recognise that light appears to travel in straight lines. <p>RECAP</p> <ul style="list-style-type: none"> • Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. • Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them 	<ul style="list-style-type: none"> • identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. 		<ul style="list-style-type: none"> • compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches; 	<ul style="list-style-type: none"> on the way their bodies function; • understand that regular exercise is important for a healthy body and how it affects the heart. • describe the ways in which nutrients and water are transported within animals, including humans.
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Last lesson of each half term is about the Scientist named below, children to investigate the scientist and why they are famous. Children to know about the different types of scientists and what they study- Botanist, Palaeontologist, Astronomer, Seismologist, Hydrologist, Zoologist, Audiologist

<p>Scientist Focus: Carl Linnaeus- published a system of classifying and grouping all living things</p>	<p>Scientist Focus: Christiaan Huygens</p>	<p>Scientist Focus: Charles Darwin</p>	<p>Scientist Focus: Sir Isaac Newton- gravity</p>	<p>Scientist Focus: Stephen Grey – electrical conduction</p>	<p>Scientist Focus: William Harvey- circulatory system</p>
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