

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y6	Electricity and Circuits	Living Things and Habitats	Light		Animals Including humans	Evolution and Inheritance
Working Scientifically takeaways (skills ongoing throughout)	I can plan, set up and carry out comparative and fair tests to answer questions, including recognising and controlling variables where necessary.	I can record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models.	I can use test results to make predictions for further tests. I can recognise the importance of taking repeat readings and take repeat readings where appropriate?		I can report findings from investigations through written explanations and conclusions using appropriate scientific language.	I can explain, in simple terms, a scientific idea and what evidence supports it.
Topic take Aways	I understand how electricity is generated and stored. I know what affects the amount of current	I understand how important having the standardised Linnaeus classification system is. I know the difference	I know light waves travel out from sources of light in straight lines. I know light waves can travel through a vacuum such as space. I know light travels from the sun, hits an object and then		I know that the circulatory system is made up of the heart, veins, arteries and blood.	I can describe how the earth and living things have changed over time. I can explain how fossils (as preserved remains of ancient plants or animals) can be

	<p>through a circuit.</p> <p>I can sketch a circuit and provide a circuit diagram with correct symbols.</p> <p>I can give reasons for the malfunction of a circuit.</p> <p>I can make at least two different types of switch.</p>	<p>between vertebrates and invertebrates.</p> <p>I can name at least 3 different classifications e.g. mammals, reptiles, amphibians, birds, crustaceans.</p> <p>I understand that some species have evolved over time to ensure their survival.</p> <p>I know that some micro-organisms are helpful and some are harmful.</p>	<p>travels in a straight line to the eye. This is how we can see.</p>	<p>I understand the component parts of blood.</p> <p>I understand how the blood transports oxygenated blood to the muscles and deoxygenated blood back to the heart.</p> <p>I understand that the heart is a muscle and can be strengthened with exercise.</p> <p>I understand that heart rates vary, the smaller the animal, the faster the heartbeat.</p>	<p>used to find out about the past.</p> <p>I know that animals and plants reproduce and produce offspring and that offspring are not identical to their parents.</p> <p>I can explain how animals and plants are adapted to suit their environment. For example a polar bear has white fur to camouflage with the snow.</p> <p>I can link adaptation over time to evolution.</p> <p>I can explain evolution is the gradual process by which different kinds of living</p>
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						organisms have developed from earlier forms over millions of years.
Scientific Enquiry	<p>Can I draw, predict and investigate what happens when I change variables in a circuit? Encourages independence - do children remember to make a fair test? Can they record their results? Do they understand the benefits of predicting? Will they test more than once? Can they suggest reasons for anomalies?</p>	<p>Can I classify using observable characteristics? Challenge children to share ideas about they might subdivide group. Learn about Swedish biologist, Carl Linnaeus, who invented the classification system we use today.</p>	<p>Can I investigate whether light reflects at the same angle as it hits a surface? Tests whether they can make the beam narrow enough to measure. How many times should you test to be able to agree/ disagree?</p>	<p>How does the angle of the light affect the length of the shadow? Children to devise their own experiment using a torch and an object.</p>	<p>What effect does aerobic exercise have on the heart? Learn to measure pulse. Decide how long to measure for to give accurate average. How can they make sure it is a fair test? How long to leave in between exercise for heart rate to return to resting heart rate.</p>	<p>Can I investigate animal adaptations? Explore Darwin's ideas by using a range of different bird beak shapes (spoons, chopsticks, tweezers, pegs etc) Investigate how many different food types they can pick up (rice, berries, string, seeds, marshmallows etc) Draw conclusions about the type of food most suited to different beak shapes. Which types of birds would be found in these environments?</p>

Vocabulary	Amps Volts Cells	Classification Microorganism Fossils Adaptation Evolution Characteristics Genetics	Reflection Refraction Spectrum	Circulatory Heart Blood vessels Veins Arteries Oxygenated Deoxygenated Valve Respiration	Adaptation adaptions evolution
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