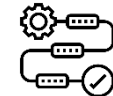


Year 6 Autumn	NC Objective: 	Key Skills (Disciplinary Knowledge): 	Key Substantive Knowledge: 	Key Vocabulary: 	Sequence of Learning: 
Autumn 1 Topic: Evolution & Inheritance	- recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents - identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution - recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	<u>Observing Over Time:</u> - I recognise how detailed my observations need to be, and what equipment to use, to make my measurements as accurate as possible. - I present data in line graphs. - I interpret changes in the data. - I evaluate how well I observed over time. <u>Identifying & Classifying:</u> - I decide what equipment, test and secondary sources of information to use to identify and classify things.	Pupils should know... - that animals are adapted to live in their habitat. - that modern animals have changed over time from ancestor organisms. - that fossils show us what these ancestor organisms looked like.	Topic vocabulary: Inherited trait DNA Gene Variation Adaptation Evolution Ancestor	Prerequisite learning: - that animals and plants reproduce to produce offspring. - that animals and plants live in different habitats. Suggested TAPS Evolution – adaptation labelling.
Autumn 2 Topic: Light	- recognise that light appears to travel in straight lines - 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	- I use secondary sources to identify and classify things. - I talk about and explain what I have done using scientific knowledge. - I evaluate how well my keys and branching databases worked. - I recognise the significance of sorting and classifying. <u>Pattern Seeking:</u> - I recognise when variables cannot be controlled and when pattern seeking will help to answer my question.	Pupils should know... - that light travels in straight lines. - why shadows take the same shape as the object that cast them. - how we see things around us.	Topic vocabulary: Light source Straight lines Reflect Shadow Opaque Translucent Transparent	Prerequisite learning: - darkness is the absence of light. - light reflects differently from different materials. - why the Sun can be dangerous to humans. - what a shadow is. Suggested TAPS: Investigating Shadows – Do https://docs.google.com/document/d/1778IHDvRFcRihQ2NNPw9fegDQx0CnPgT/edit?usp=sha

	shape as the objects that cast them.	- I recognise the effect of sample on reliability. - I draw valid conclusions from data about patterns and recognise their limitations. - I talk about and explain cause and effect pattern using scientific knowledge and understanding. - I evaluate how well I looked for patterns. <u>Research:</u> - I decide which sources of information might answer my questions. - I recognise how data has been obtained. - I start to notice when information is biased or based on opinions rather than facts. - I evaluate how well my research has answered my questions. <u>Fair Testing:</u> - I decide what equipment to use to make my measurements as accurate as possible. - I present my data in line graphs. - I talk about, and explain, causal relationships using scientific knowledge and understanding.			ring&ouid=114100054467099972363&rtpof=true&sd=true
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Year 6 Spring	NC Objective: 	Key Skills (Disciplinary Knowledge): 	Key Substantive Knowledge: 	Key Vocabulary: 	Sequence of Learning: 
Spring 1 Topic: Electricity	- associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit - 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 - use recognised symbols when representing a simple circuit in a diagram.	<u>Observing Over Time:</u> - I recognise how detailed my observations need to be, and what equipment to use, to make my measurements as accurate as possible. - I present data in line graphs. - I interpret changes in the data. - I evaluate how well I observed over time. <u>Identifying & Classifying:</u> - I decide what equipment, test and secondary sources of information to use to identify and classify things. - I use secondary sources to identify and classify things. - I talk about and explain what I have done using scientific knowledge. - I evaluate how well my keys and branching databases worked. - I recognise the significance of sorting and classifying. <u>Pattern Seeking:</u> - I recognise when variables cannot be controlled and when pattern seeking will help to answer my question. - I recognise the effect of sample on reliability.	Pupils should know... - how to draw an accurate circuit diagram. - various ways in which changing a circuit can affect how a component in it functions.	Topic vocabulary: Circuit symbol Circuit diagram Cell Series Parallel	Prerequisite learning: - to name a: motor, bulb, cell, buzzer and wire. - how to connect a cell properly (+ve to -ve etc). - definition of conductor and insulators. - naming some examples of conductors and insulators Suggested TAPS: Own Circuits investigation.

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- I draw valid conclusions from data about patterns and recognise their limitations.
- I talk about and explain cause and effect pattern using scientific knowledge and understanding.
- I evaluate how well I looked for patterns.

Research:

- I decide which sources of information might answer my questions.
- I recognise how data has been obtained.
- I start to notice when information is biased or based on opinions rather than facts.
- I evaluate how well my research has answered my questions.

Fair Testing:

- I decide what equipment to use to make my measurements as accurate as possible.
- I present my data in line graphs.
- I talk about, and explain, causal relationships using scientific knowledge and understanding.

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Spring 2 Topic: Living Things and their Habitats	- describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms. - give reasons for classifying plants and animals based on specific characteristics	<u>Observing Over Time:</u> - I recognise how detailed my observations need to be, and what equipment to use, to make my measurements as accurate as possible. - I present data in line graphs. - I interpret changes in the data. - I evaluate how well I observed over time. <u>Identifying & Classifying:</u> - I decide what equipment, test and secondary sources of information to use to identify and classify things. - I use secondary sources to identify and classify things. - I talk about and explain what I have done using scientific knowledge. - I evaluate how well my keys and branching databases worked. - I recognise the significance of sorting and classifying. <u>Pattern Seeking:</u> - I recognise when variables cannot be controlled and when pattern seeking will help to answer my question. - I recognise the effect of sample on reliability. - I draw valid conclusions from data about patterns and recognise their limitations. - I talk about and explain cause and effect pattern using scientific knowledge and understanding. - I evaluate how well I looked for patterns. <u>Research:</u>	Pupils should know... - there are several Families of animals: mammals, fish, reptiles and amphibians. - there are several types of micro-organism, including but not limited to: bacteria, viruses and fungi. - plants can be characterised based on their features, specifically: ferns, mosses and flowering plants. - who Carl Linnaeus is.	Topic vocabulary: micro-organisms, agar, bacteria, fungi, virus, mosses, ferns, flowering plants.	Prerequisite learning: - recognise that living things can be grouped in a variety of ways - explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. - recognise that environments can change and that this can sometimes pose dangers to living things Suggested TAPS: Invertebrate Research – Review https://docs.google.com/document/d/17EYMI2OUdJ_wXFq66fTS7SHsCM43gmJf/edit?usp=sharing&oid=114100054467099972363&rtpof=true&sd=true
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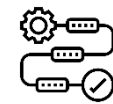
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Year 6 Summer	NC Objective: 	Key Skills (Disciplinary Knowledge): 	Key Substantive Knowledge: 	Key Vocabulary: 	Sequence of Learning: 
Summer 1 Topic: Consolidation					
Summer 2 Topic: Animals Including Humans	- identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. - recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. - describe the ways in which nutrients and water are transported within animals, including humans.	<u>Observing Over Time:</u> - I recognise how detailed my observations need to be, and what equipment to use, to make my measurements as accurate as possible. - I present data in line graphs. - I interpret changes in the data. - I evaluate how well I observed over time. <u>Identifying & Classifying:</u> - I decide what equipment, test and secondary sources of information to use to identify and classify things. - I use secondary sources to identify and classify things. - I talk about and explain what I have done using scientific knowledge. - I evaluate how well my keys and branching databases worked. - I recognise the significance of sorting and classifying. <u>Pattern Seeking:</u> - I recognise when variables cannot be controlled and when pattern seeking will help to answer my question.	Pupils should know... - that some drugs are illegal and unhealthy for the body. - some drugs are legal. - how lifestyle affects the health of humans and animals - how the circulatory system transports food, air and nutrients around the body.	Topic vocabulary: Heart Blood Blood vessels Circulatory system Lifestyle Drugs Pulse Veins Arteries Capillaries	Prerequisite learning: - that a balanced diet is required for humans to be healthy. - that animals require food and water to survive. Suggested TAPS: Heartrate pose - Plan https://docs.google.com/document/d/16u0u8SjkokpD4itUgl7Af8vPh4ZoGQ7L/edit?usp=sharing&ouid=114100054467099972363&rtpof=true&sd=true

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		- I recognise the effect of sample on reliability. - I draw valid conclusions from data about patterns and recognise their limitations. - I talk about and explain cause and effect pattern using scientific knowledge and understanding. - I evaluate how well I looked for patterns. <u>Research:</u> - I decide which sources of information might answer my questions. - I recognise how data has been obtained. - I start to notice when information is biased or based on opinions rather than facts. - I evaluate how well my research has answered my questions. <u>Fair Testing:</u> - I decide what equipment to use to make my measurements as accurate as possible. - I present my data in line graphs. - I talk about, and explain, causal relationships using scientific knowledge and understanding.			
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