



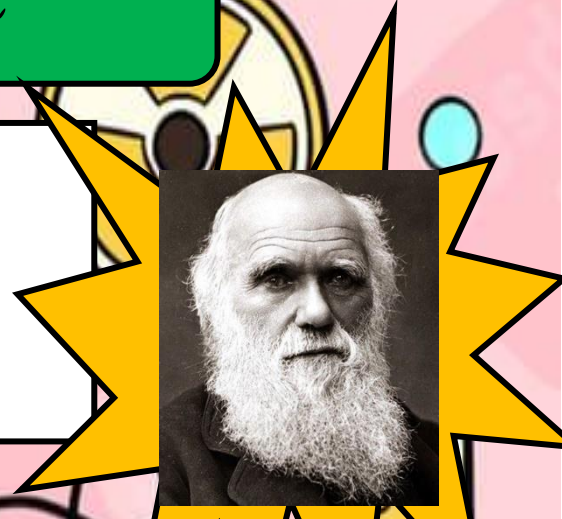
Spring Vale Primary School: Science Year Six



Topic: Evolution and Inheritance

Learning Aims:

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
- 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.



Charles Darwin

Learning Outcomes	Pupils can...
	If children cannot access the majority of the objectives they will be teacher assessed as emerging or developing.
Stage 6 expected	<ul style="list-style-type: none"> • I can describe how the earth has changed over time. • I can explain how living things have changed over time. • I can explain how fossils can be used to find out about the past. • I can explain about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents.) • I can explain how animals and plants are adapted to their environment. • I can link adaption over time to evolution. • I can explain evolution.
Stage 6 Exceeding	<ul style="list-style-type: none"> • I can explain how some living things adapt to survive in extreme conditions. • I can analyse the advantages and disadvantages of specific adaptations, such as being on two feet rather than four feet. • I am beginning to understand the nature of DNA.

Wonder Question:
How have plants adapted to the rainforest?



Investigation Bank:

- Adaptation – Beak Investigation.
- Charles Darwin Research
- Adaptations Research Fact File

Last Taught:
New Topic



Spring Vale Primary School: Science Year Six



Topic: Light

Learning Aims:

- Understand 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 shape as the objects that cast them, and to predict the size of shadows when the position of the light source changes.



Christiaan Huygens

Learning Outcomes Pupils can...

If children cannot access the majority of the objectives they will be teacher assessed as emerging or developing.

Stage 6
expected

- I can explain how light travels.
- I can explain and demonstrate how we see objects.
- I can explain why shadows have the same shape as the object that casts them.
- I can explain how simple optical instruments work, e.g. periscope, telescope, binoculars, mirror, magnifying glass etc.

Stage 6
Exceeding

- I can use the ray model to explain the size of shadows.



Wonder Question:
How can we see the moon at nighttime?



Investigation Bank:

- Periscope Investigation.
- Shadow Investigation.
- Creating a Telescope Investigation.

Last Taught:
Year 3



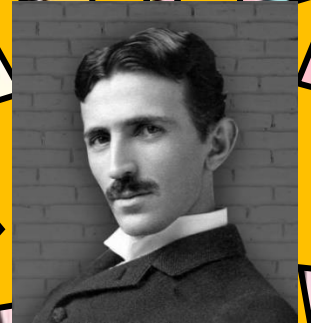
Spring Vale Primary School: Science Year Six



Topic: Electricity

Learning Aims:

- 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.



Nikola Tesla

Learning Outcomes	Pupils can...
	If children cannot access the majority of the objectives they will be teacher assessed as emerging or developing.
Stage 6 expected	<ul style="list-style-type: none"> • I can explain how the number and voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer. • I can compare and give reasons for why components work and do not work in a circuit. • I can draw circuit diagrams using the correct symbols.
Stage 6 Exceeding	<ul style="list-style-type: none"> • I can explain the danger of short circuits and what a fuse is.



Wonder Question:
How have plants adapted to the rainforest?

Investigation Bank:

- Electrical circuits – security system experiment
- Parallel circuits investigation

Last Taught:
Year 4