



Spring Vale Primary School: Science Year Four



Topic: Living Things

Learning Aims:

- Describe the simple functions of the basic parts of the digestive system in humans.
- Identify the different types of teeth in humans and their simple functions.
- Construct and interpret a variety of food chains, identifying producers, predators and prey.
- Identify and name a variety of living things (plants and animals) in the local and wider environment, using classification keys to assign them to groups
- Recognise that environments can change and that this can sometimes pose dangers to living things.



Steve Irwin

Learning Outcomes	Pupils can...
	If children cannot access the majority of the objectives they will be teacher assessed as emerging or developing.
Stage 4 expected	<ul style="list-style-type: none"> • I can group living things in different ways. • I can use classification keys to group, identify and name living things. • I can create classification keys to group, identify and name living things (for others to use.) • I can describe how changes to an environment could endanger living things. • I can identify and name the parts of the human digestive system. • I can describe the functions of the organs in the digestive system. • I can identify and describe the different types of teeth in humans. • I can describe the functions of different human teeth. • I can use food chains to identify producers, predators and prey.
Stage 4 Exceeding	<ul style="list-style-type: none"> • I can explain how people, weather and the environment can affect living things.

Wonder Question:
What happens to our teeth when we drink fizzy drinks?



Investigation Bank:

- Bug Hunt Investigation
- Bird Watching Observation
- Boiled Egg Teeth Investigation
- Fingerprint Identification

Last Taught:
Year 2



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Topic: States of Matter

Learning Aims:

- Compare and group materials together, according to whether they are solids, liquids or gases.
- Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).
- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.



John Dalton

Learning Outcomes	Pupils can...
	If children cannot access the majority of the objectives they will be teacher assessed as emerging or developing.
Stage 4 expected	<ul style="list-style-type: none"> • I can group materials based on their states of matter. (solid, liquid, gas.) • I can describe how some materials can change state. • I can explore how materials change state. • I can measure the temperature at which materials change state. • I can describe the water cycle. • I can explain the part played by evaporation and condensation in the water cycle.
Stage 4 Exceeding	<ul style="list-style-type: none"> • I can group and classify a variety of materials according to the impact of temperature upon them. • I can relate temperature to the change of state of materials.

Wonder Question:
How are clouds formed?



Investigation Bank:

- Water Cycle Bags Investigation
- Balloon Gas Test
- Melting Chocolate Investigation
- Exploding Volcanos Investigation

Last Taught:
New Topic



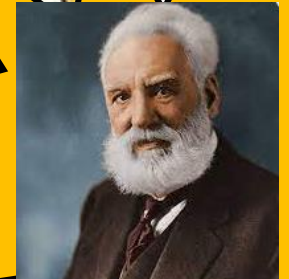
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Topic: Sound

Learning Aims:

- Identify how sounds are made, associating some of them with something vibrating.
- Find patterns between the pitch of a sound and features of the object that produced it.
- Find patterns between the volume of a sound and the strength of the vibrations that produced it.



Alexander Graham Bell

Learning Outcomes	Pupils can...
	If children cannot access the majority of the objectives they will be teacher assessed as emerging or developing.
Stage 4 expected	<ul style="list-style-type: none"> • I can describe how sound is made. • I can explain how sound travels from a source to our ears. • I can explain the place of vibration in hearing. • I can explore the correlation between pitch and the object producing sound. • I can explore the correlation between the volume of a sound and the strength of the vibrations that produced it. • I can describe what happens to a sound as it travels away from its source.
Stage 4 Exceeding	<ul style="list-style-type: none"> • Use of working scientifically at exceeding level.

Wonder Question:
How are clouds formed?



Investigation Bank:

- Vibrations Test
- Decibel Test
- Investigating Insulators of Sound

Last Taught:
New Topic



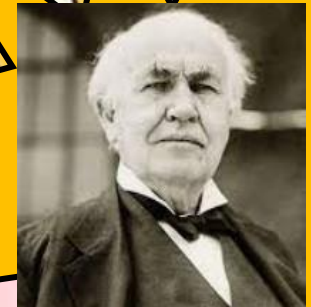
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Topic: Electricity

Learning Aims:

- Identify common appliances that run on electricity.
- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.
- Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.
- Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.
- Recognise some common conductors and insulators, and associate metals with being good conductors.



Thomas Edison

Learning Outcomes Pupils can...

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

Stage 4+ expected

- I can identify and name appliances that require electricity to function.
- I can construct a series circuit.
- I can identify and name the components in a series circuit (cells, wires, bulbs, switches and buzzers.)
- I can draw a circuit diagram.
- I can predict and test whether a lamp will light within a circuit.
- I can describe the function of a switch in a circuit.
- I can describe the function of a switch in a circuit.
- I can describe the difference between a conductor and insulators; giving examples of each.

Stage 4+ Exceeding

- I can work out which metals can be used to connect across a gap in a circuit.



Wonder Question:

Is aluminium a good conductor?



Investigation Bank:

- Circuit Investigation
- Conductor Investigation
- Creating Switches Investigation

Last Taught:
New Topic