



Spring Vale Primary School: Science Year Three



Topic: Plants and Animals

Learning Aims:

- Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers.
- Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.
- Investigate the way in which water is transported within plants.
- Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
- Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.
- Identify that humans and some animals have skeletons and muscles for support, protection, and movement.



George Washington Carver

Learning Outcomes	Pupils can...
	If children cannot access the majority of the objectives they will be teacher assessed as emerging or developing.
Stage 3 expected	<ul style="list-style-type: none"> • I can describe the function of different parts of flowering plants and trees. • I can explore and describe the needs of different plants for survival. • I can explore and describe how water is transported within plants. • I can describe the plant life cycle, especially the importance of flowers. • I can explain the importance of a nutritious, balanced diet. • I can explain how nutrients, water and oxygen are transported within animals and humans. • I can describe and explain the skeletal system of a human. • I can describe and explain the muscular system of a human. • I can describe the purpose of the skeleton in humans and animals.
Stage 3 Exceeding	<ul style="list-style-type: none"> • I can explain how the muscular and skeletal systems work together to create movement. • I can classify living things and non-living things by a number of characteristics that I have thought of. • I can explain how some living things depend on one another to survive. • I can explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Wonder Question:
How many bones are there in the human body?



Investigation Bank:

- Does light affect growth? Investigation.
- Does leg length affect jump length? Investigation
- Identifying and naming plant parts and functions.

Last Taught: Year 2



Topic: Rocks

Learning Aims:

- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock.
- Recognise that soils are made from rocks and organic matter.



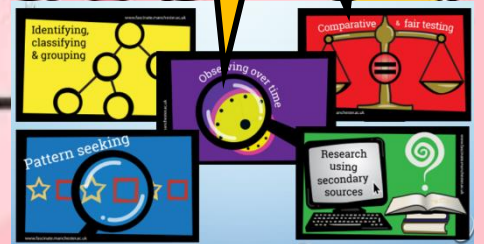
Mary Anning

Learning Outcomes Pupils can...

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

Stage 3 expected	<ul style="list-style-type: none"> • I can compare and group rocks based on their appearance and physical properties, giving a reason. • I can describe how fossils are formed. • I can describe how soil is made. • I can describe the difference between sedimentary and igneous rock.
Stage 3 Exceeding	<ul style="list-style-type: none"> • I am beginning to relate the properties of rocks with their uses.

Wonder Question:
How are fossils made?



Investigation Bank:

- Hardness Test
- Permeability of Soil Investigation
- Rock Identification
- Identification of different types of fossils

Last Taught:
New Topic



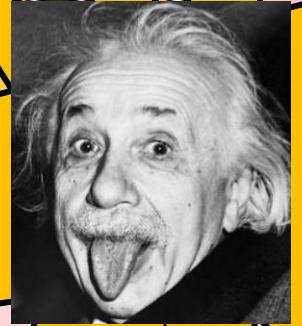
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Topic: Light

Learning Aims:

- Understand that light is needed to see things and dark is the absence of light.
- Notice that light is reflected from surfaces.
- Find patterns that determine the size of shadows.



Albert Einstein

Assess Level at the end of the unit and record on the class sheet.

Learning Outcomes	Pupils can...
	If children cannot access the majority of the objectives they will be teacher assessed as emerging or developing.
Stage 3 expected	<ul style="list-style-type: none"> • I can describe what dark is (the absence of light) • I can explain that light is needed in order to see. • I can explain that light is reflected from a surface. • I can explain and demonstrate how a shadow is formed. • I can explore shadow size. • I can explain the danger of direct sunlight and describe how to keep protected.
Stage 3 Exceeding	<ul style="list-style-type: none"> • I can explain why lights need to be brighter or dimmer according to need. • I can explain why a shadow changes when the light source is moved closer or further from the object.



Wonder Question:
How can you make a shadow bigger?



Investigation Bank:

- Where is the lightest area of the playground? Investigation
- Shadows Investigation
- Opaque / Translucent / Transparency Investigation

Last Taught:
New Topic



Topic: Forces and Magnets

Learning Aims:

- Notice that some forces need contact between two objects, but magnetic forces can act at a distance.
- Observe how magnets attract or repel each other and attract some materials and not others.
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet and identify some magnetic materials.
- Describe magnets as having two poles.
- Predict whether two magnets will attract or repel each other, depending on which poles are facing.



Isaac Newton

Learning Outcomes	Pupils can...
	If children cannot access the majority of the objectives they will be teacher assessed as emerging or developing.
Stage 3 expected	<ul style="list-style-type: none"> • I can explore and describe how objects move on different surfaces. • I can explain how some forces require contact and some do not, giving examples. • I can explore and explain how objects attract and repel in relation to objects and other magnets. • I can predict whether objects will be magnetic and carry out an enquiry to test this out. • I can describe how magnets work. • I can predict whether magnets will attract or repel and give a reason.
Stage 3 Exceeding	<ul style="list-style-type: none"> • I can investigate the strengths of different magnets and find fair ways to compare them.

Wonder Question:
How can a magnet be used for recycling?



Investigation Bank:

- Air resistance on aeroplanes investigation.
- Sorting magnetic and non-magnetic materials.
- Friction investigation.
- Changing shape water resistance investigation.

Last Taught:
New Topic