

The Northway Curriculum

Year Six

Science

Unit One

Living things and their habitats



LO: I can describe how living things are classified into broad groups. According to observable characteristics and based on similarities and differences.

LO: I can classify plants and animals into broad groups, devising a key or other method based on shared characteristics and observable features.

LO: I can give reasons for classifying plants and animals based on specific characteristics.

LO: I can research the significance of a scientist such as Carl Linnaeus (a pioneer of classification)

Year Four

Science

Previous Knowledge

I can recognise that living things can be grouped in a variety of ways

I can 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.

Year Six

Science

Working scientifically

I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary

I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate

I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

I can use test results to make predictions to set up further comparative and fair tests

I can report and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations

I can identify scientific evidence that has been used to support or refute ideas or arguments.

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Year Six Science Unit Two Animals (including humans)



LO: I can identify and name the main parts of the human circulatory system

LO: I can describe the functions of the heart, blood vessels and blood.

LO: I can recognise the impact of diet, exercise, drugs and lifestyle on the way my body functions

LO: I can describe the ways in which nutrients and water are transported within animals, including humans

Year Four Science States of matter	
I can describe the simple functions of the basic parts of the digestive system in humans	
I can identify the different types of teeth in humans and their simple functions	
I can construct and interpret a variety of food chains, identifying producers, predators and prey.	

Year Six Science Working scientifically	
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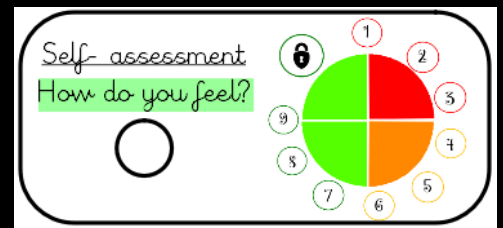
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Year Six

Science

Unit Three

Evolution and inheritance



LO: I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

LO: I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

LO: I can identify how animals and plants are adapted to suit their environment in different ways

LO: I know that adaptation may lead to evolution

LO: I can research and find out about the work of Mary Anning, Charles Darwin and Alfred Wallace and how they developed their ideas on evolution.

Year Three

Science

Previous Knowledge

I can describe in simple terms how fossils are formed when things that have lived are trapped within rock

I can recognise that soils are made from rocks and organic matter.

Year Six

Science

Working scientifically

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Year Six Science Unit Four Light



LO: I can recognise that light appears to travel in straight lines.

LO: I can use the idea that light travels in straight lines that objects are seen because they give out or reflect light into the eye

LO: I can 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

LO: I can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

LO: I can investigate the relationship between light sources, objects and shadows by using shadow puppets.

Year Four Science States of matter

I can recognise that they need light in order to see things and that dark is the absence of light

I can notice that light is reflected from surfaces

I can recognise that light from the sun can be dangerous and that there are ways to protect their eyes

I can recognise that shadows are formed when the light from a light source is blocked by an opaque object

I can find patterns in the way that the size of shadows change.

Year Six Science

Working scientifically

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Year Six Science Unit Five Electricity



LO: I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.

LO: I can 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)

LO: I can use recognised symbols when representing a simple circuit in a diagram

LO: I can identify the effect of changing one component at a time in a circuit

LO: I can research the Nicolai Tesla

Year Four Science Previous Knowledge	
I can identify common appliances that run on electricity	
I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers	
I can 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	
I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit	
I can recognise some common conductors and insulators, and associate metals with being good conductors.	

Year Six Science Working scientifically

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