

Y6 - Classifying Living Things

Objective	Working towards expectation	Working at expectation	Working above expectation
Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.	Identify the broad groups into which living things are classified, e.g. mammals.	Use similarities and differences in observable features to decide how living things should be grouped e.g. a cat is a mammal because it is warm blooded and gives birth to live young.	Explore why some living things, such as the duck billed platypus, don't neatly fit into one group.
Give reasons for classifying plants and animals based on specific characteristics.	State how plants and animals can be classified using specific characteristics.	Explain why certain features are useful in classifying living things, e.g. backbones in animals and flowers in plants.	Explain why other features are less useful as a basis for classification, such as size or colour.

Y6 - The Heart and Lungs; Keeping healthy

Objective	Working towards expectation	Working at expectation	Working above expectation
Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.	Name the main parts of the human circulatory system, e.g. heart, arteries, veins.	Describe what heart, blood vessels and blood do, e.g. carry oxygen to all parts of the body.	Explain some characteristics of the heart, blood vessels and blood, e.g. explain that the arteries are thicker because they carry blood at a higher pressure.
Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.	Recognise that diet, exercise, drugs and lifestyle impact on the way the body functions, e.g. knowing that exercise changes the body.	Suggest how their bodies are affected by substances and actions, e.g. that a high fat diet coupled with little exercise is likely to lead to obesity.	Explain how decisions about lifestyle can affect the quality of life, e.g. recognise that making excessive use of convenience foods may introduce more additives into the diet.
Describe the ways in which nutrients and water are transported within animals, including humans.	Describe that nutrients and water are transported within humans.	Describe with aid of diagrams the route that water takes within animals, e.g. through the human body.	Compare the ways in which nutrients and water are transported in two animals that are quite different.

Y6 - Evolution and Inheritance

Objective	Working towards expectation	Working at expectation	Working above expectation
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 fossils provide information about living things from millions of years ago, e.g. understand that they are preserved remains of extinct living things.	Use fossils as evidence that living things have changed over time, e.g. explain that these have died out and others have taken their place.	Suggest possible reasons for changes to living things over time, e.g. why penguins can't fly but are good at swimming.
Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.	Recognise that living things produce offspring of the same kind, but normally offspring vary, e.g. that puppies have common features but are not identical.	Recognise that offspring normally vary from each other and from their parents, e.g. that puppies vary from each other and from their parents.	Recognise that selective breeding may result in offspring with certain features, e.g. pedigree dogs with a certain shape or colour.
Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	Identify ways in which certain animals and plants are adapted to suit their environment in different ways.	Describe examples of a living thing that has adapted to live in a particular habitat and evolved as a result, e.g. a polar bear or cactus.	Give examples of living things that have evolved in different ways, e.g. different types of finch.

Y6 - Light

Objective	Working towards expectation	Working at expectation	Working above expectation
Recognise that light appears to travel in straight lines.	Recognise that light travels from one point to another.	Represent light using straight line ray diagrams.	Recognise that even when light changes in direction, the path is still continuous.
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.	Recognise that some objects reflect light.	Draw diagrams using straight lines showing light travelling to the eye.	Draw diagrams using straight lines showing light reflecting off objects and 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.	Describe how light travels from light sources to our eyes.	Explain how we can see an object by referring to light travelling into the eye.	Refer to the idea that some objects may be better reflectors than others.
Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	Relate the shape of shadows to the shape of the object that makes them.	Draw a diagram showing an object, shadow and light to relate object shape to shadow shape.	Use a diagram to explain that although a shadow is the same shape as the object, it may not be the same size.

Y6 - Electricity

Objective	Working towards expectation	Working at expectation	Working above expectation
Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in a circuit	Recognise that changing the number and voltage of cells may alter the operation of a circuit.	Explain how number and voltage of cells affects the lamp or buzzer.	Relate the number or voltage of cells to the number and operation of bulbs or buzzers that can be run from them.
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	Identify the function and operation of different components.	Explain the use of switches, how bulbs can be made brighter and buzzers made louder.	Explain the effect of changing the order of the components in a circuit.
Use recognised symbols when representing a simple circuit in a diagram	Understand that components can be represented by symbols.	Represent a circuit that has been constructed using symbols.	Design circuits using symbols.