What do you know? Science

Year 6

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 present 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 use scientific evidence that has been used to support or refute ideas or arguments,
Particles in physical and chemical changes
I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
I can use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
I can demonstrate that dissolving, mixing and changes of state are reversible changes
I can explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda
Sustainability
I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
I can explain that some changes result in the formation of new materials
Humans and animals over time
I can describe in simple terms how fossils are formed when things that have lived are trapped within rock
I can 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
I can give reasons for classifying plants and animals based on specific characteristics.
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
I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
Diet and lifestyle

What do you know? Science

Year 6

I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
I can recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
I can describe the ways in which nutrients and water are transported within animals, including humans.
I can describe the changes as humans develop to old age
I can 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.
Light
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.
I can recognise that light appears to travel in straight lines
I can 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
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
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.
Electricity
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.
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.
I can use recognised symbols when representing a simple circuit in a diagram.