



# Year 6 National Expectation

I can identify and manage variables, e.g. distances and sizes in shadow formation.

I can answer questions using evidence gathered from different types of scientific enquiry, e.g. operation of circulatory system from experiment, survey and secondary research.

## Working Scientifically Planning

I can use line graphs to display complex data, e.g. size of object in relation to the size of the shadow it casts.

I can use various ways, as appropriate, to record complex evidence, e.g. in the construction of a key to aid plant identification.

I can use labelled diagrams to show complex outcomes, e.g. relating specific adaptations of organisms to environmental factors.

I can identify situations in which taking repeat readings will improve the quality of evidence, e.g. investigating the behaviour of components in a circuit.

I can consider how by modifying instrument or technique, measurements can be improved, e.g. when recording route of light rays.

I can use appropriate equipment, such as meter rule, to take measurements, such as distance travelled by light.

## Working Scientifically Recording evidence

I can use evidence to suggest further comparative or fair tests that would develop the investigation, e.g. in the design of rear view mirrors for cars.

I can identify how an idea is supported or refuted by evidence, e.g. selective breeding to produce animals or plants with desirable characteristics.

I can, in conclusions, indicate how trustworthy they are, e.g. in relating brightness of bulb to voltage supplied.

I can display and present key findings from enquiries orally and in writing, e.g. deciding how well classifications fit unfamiliar animals and plants.

I can write a conclusion using evidence and identifying causal links, e.g. in the design of a periscope.

## Working Scientifically Findings and Conclusions

I can recognise that offspring normally vary from each other and from their parents, e.g. that puppies vary from each other and from their parents.

I can 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.

I can explain why certain features are useful in classifying living things, e.g. backbones in animals and flowers in plants.

I can 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.

## Biology

I can describe with aid of diagrams the route that water takes within animals, e.g. through the human body.

I can 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.

I can describe what heart, blood vessels and blood do, e.g. carry oxygen to all parts of the body.

I can 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.

## Biology

I can represent a circuit that has been constructed using symbols.

I can explain the use of switches, how bulbs can be made brighter and buzzers made louder.

I can explain how number and voltage of cells affects the lamp or buzzer.

I can draw a diagram showing an object, shadow and light to relate object shape to shadow shape.

I can explain how we can see an object by referring to light travelling into the eye.

I can draw diagrams using straight lines showing light travelling to the eye.

I can represent light using straight line ray diagrams.

## Physics