YEAR 6: END POINTS

| Year 6 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Biology |  |  | Physics |  |
| Animals, including humans | All living things and their habitats | Evolution and Inheritance | Electricity | Light |
| - The circulatory system <br> - Water transportation <br> - Impact of exercise on body | - Classification of living things and the reasons for it | - Identical and non identical off-spring <br> - Fossil evidence and evolution <br> - Adaptation and evolution | - Electrical components <br> - Simple circuits <br> - Fuses and voltage | - How light travels <br> - Reflection <br> - Ray models of light |
| - Identify and name the main parts of the human circulatory system <br> - Know the function of the heart, blood vessels and blood <br> - Know the impact of diet, exercise, drugs and lifestyle on health <br> - Know the ways in which nutrients and water are transported in animals, including humans | - Classify living things into broad groups according to observable characteristics and based on similarities and differences <br> - Know how living things have been classified <br> - Give reasons for classifying plants and animals in a specific way | - Know how the Earth and living things have changed over time <br> - Know how fossils can be used to find out about the past <br> - Know about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents) <br> - Know how animals and plants are adapted to suit their environment <br> - Link adaptation over time to evolution <br> - Know about evolution and can explain what it is | - Compare and give reasons for why components work and do not work in a circuit <br> - Draw circuit diagrams using correct symbols <br> - Know how the number and voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer | - Know how light travels <br> - Know and demonstrate how we see objects <br> - Know why shadows have the same shape as the object that casts them <br> - Know how simple optical instruments work e.g. periscope, telescope, binoculars, mirror, magnifying glass etc. |

## Year 6

## Working Scientifically

- Know which type of investigation is needed to suit particular scientific enquiry e.g. looking at the relationship between pulse and exercise
- Set up a fair test when needed e.g. does light travel in straight lines?
- Know how to set up an enquiry based investigation e.g. what is the relationship between oxygen and blood?
- Know what the variables are in a given enquiry and can isolate each one when investigating
- Justify which variable has been isolated in scientific investigation
- Use all measurements as set out in Year 6 mathematics (measurement), including capacity, mass, ratio and proportion
- Able to record data and present them in a range of ways including diagrams, labels, classification keys, tables, scatter graphs and bar and line graphs
- Make accurate predictions based on information gleaned from their investigations and create new investigations as a result
- Use a range of written methods to report findings, including focusing on the planning, doing and evaluating phases
a Clear about what has been found out from their enquiry and can relate this to others in class
- Explanations set out clearly why something has happened and its possible impact on other things
- Aware of the need to support conclusions with evidence
- Keep an on-going record of new scientific words that they have come across for the first time and use these regularly in future scientific write ups
- Use diagrams, as and when necessary, to support writing and be confident enough to present findings orally in front of the class
- Able to give an example of something they have focused on when supporting a scientific theory e.g. classifying vertebrate and invertebrate creatures or why certain creatures choose their unique habitats
- Frequently carry out research when investigating a scientific principle or theory
- Able to present information related to scientific enquiries in a range of ways including using IT such as power-point, animoto and iMovie

