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| **NC statement missed** | **End of KS2 TAF statement** | **Link to KS3 curriculum** | **BEST diagnostic assessments\***  [**https://www.stem.org.uk/best-evidence-science-teaching**](https://www.stem.org.uk/best-evidence-science-teaching) | **Notes and status:**  taught in school / not taught / home learning |
| **Year 6** | | |
| **Living things in their habitats** | | |
| 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 | **use the observable features of plants, animals and micro-organisms to group, classify and identify them into broad groups, using keys or other methods [Y6].** | **Inheritance, chromosomes, DNA and genes**  differences between species | BVE2.1 Seaside sorting  BVE2.1 Is it a bird? |  |
| give reasons for classifying plants and animals based on specific characteristics |  |

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| **Year 6** | | |
| **Animals including humans** | | |
| identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood | **name, locate and describe the functions of the main parts of the** digestive [Y4], musculoskeletal [Y3], and **circulatory systems [Y6],** and describe and compare different reproductive processes and life cycles, in animals [Y5]. | No specific links in KS3. Picked up in KS4. | BCL2.1 Body parts  BCL2.2 The human circulatory system  [BCL2.2 Arteries and veins]  BCL2.2 Circulation |  |
| describe the ways in which nutrients and water are transported within animals, including humans |  |
| recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function | **describe the effects of diet, exercise, drugs and lifestyle on how the body functions [Y6].** | **Nutrition and Digestion**  the consequences of imbalances in the diet, including obesity, starvation and deficiency diseases.  **Health**  the effects of recreational drugs (including substance misuse) on behaviour, health and life processes. | BHD1.1 Health check  BHD1.1 Healthy body  BDH2.1 To eat or not to eat  BDH2.1 Vitamins  BHD2.1 Exercise effects |  |

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| **Year 6** | | |
| **Evolution and inheritance** | | |
| recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago | **use the basic ideas of inheritance, variation and adaptation to describe how living things have changed over time and evolved [Y6];** and describe how fossils are formed [Y3] **and provide evidence for evolution [Y6].** | **Inheritance, chromosomes, DNA and genes**  heredity as the process by which genetic information is transmitted from one generation to the next  differences between species  the variation between individuals within a species being continuous or discontinuous, to include measurement and graphical representation of variation  the variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection  changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction | BVE1.2 How do we know?  BVE1.2 What can we learn from fossils?  BVE1.2 Could it become a fossil? |  |
| * recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents | BHL1.1 Dogs and their puppies  BHL 1.1 Her mother’s eyes |  |
| identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. | *Potentially BVE3 Adaptation and evolution – resources not yet available* |  |

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| **Year 6** | | |
| **Light** | | |
| recognise that light appears to travel in straight lines | **use the idea that light from light sources, or reflected light, travels in straight lines and enters our eyes to explain how we see objects [Y6],** and the formation [Y3], **shape [Y6]** and size of shadows [Y3]. | **Light waves**  light waves travelling through a vacuum; speed of light the transmission of light through materials: absorption, diffuse scattering and specular reflection at a surface  use of ray model to explain imaging in mirrors, the pinhole camera, the refraction of light and action of convex lens in focusing (qualitative); the human eye | PLS1.2 Spotting light  PSL1.2 A tree’s shadow |  |
| 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 | PSL2.1 My eye  PSL2.1 Seeing the light  PSL2.1 In the dark  PSL2.1 Seeing an explanation |  |
| 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 |  |
| use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them | PSL1.2 A penguin’s shadow PSL1.2 Making a shadow |  |

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| **Year 6** | | |
| **Electricity** | | |
| associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit | **use simple apparatus to construct and control a series circuit, and describe how the circuit may be affected when changes are made to it; and use recognised symbols to represent simple series circuit diagrams [Y6].** | **Current electricity**  electric current, measured in amperes, in circuits, series and parallel circuits, currents add where branches meet and current as flow of charge  potential difference, measured in volts, battery and bulb ratings; resistance, measured in ohms, as the ratio of potential difference (p.d.) to current  differences in resistance between conducting and insulating components (quantitative). | PEM1.3 Which is brightest?  PEM 1.3 Combining 1.5V batteries |  |
| 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 | PEM1.3 Current or voltage  PEM1.3 Bulb markings |
| use recognised symbols when representing a simple circuit in a diagram | PEM 1.1 Circuit from a picture  PEM1.1 Circuit symbols  PEM1.1 Circuit diagrams (1)  PEM1.1 Circuit from a diagram  PEM1.1 Circuit diagrams (2) |  |

*\* For elicitation and identification of misconceptions also see Concept Cartoons – Stuart Naylor and Brenda Keogh* [*https://www.millgatehouse.co.uk/*](https://www.millgatehouse.co.uk/)