Science Long term plan

 **Cycle A – 2022 - 2023**

Brisons Class Year 1/2

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| Autumn Term 1 | Autumn Term 2 | Spring Term 1 | Spring Term 2 | Summer Term 1 | Summer Term 2 |
| **Superheroes**Animals including humans-notice that animals, including humans, have offspring which grow into adults-find out about and describe the basic needs of animals, including humans, for survival (water, food and air)-describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene | **Famous for 5 minutes** | **The Great Fire of London**Everyday materials-identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses-find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching | **Where in the world?**Plants-observe and describe how seeds and bulbs grow into mature plants-find out and describe how plants need water, light and a suitable temperature to grow and stay healthy | **Amazing Animals** Animals including Humans-notice that animals, including humans, have offspring which grow into adults-find out about and describe the basic needs of animals, including humans, for survival (water, food and air)-describe the importance for humans of exercise, eating the right amounts of different types of food, and hygieneLiving things in the Environment-describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food | **Life’s a Beach!** Living things in the environment-explore and compare the differences between things that are living, dead, and things that have never been alive-identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other-identify and name a variety of plants and animals in their habitats, including microhabitats |

Longships Class Year 3/4

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| Autumn Term 1 | Autumn Term 2 | Spring Term 1 | Spring Term 2 | Summer Term 1 | Summer Term 2 |
| **Stone Age to Iron Age** | **Potions**States of Matter-compare and group materials together, according to whether they are solids, liquids or gases-observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)-identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature | **Journey down the Amazon**Light-recognise that they need light in order to see things and that dark is the absence of light-notice that light is reflected from surfaces-recognise that light from the sun can be dangerous and that there are ways to protect their eyes-recognise that shadows are formed when the light from a light source is blocked by an opaque object-find patterns in the way that the size of shadows change | **Growing**Plants-identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers-explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant-investigate the way in which water is transported within plants-explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal | **Local Environment**Living things and their habitats-recognise that living things can be grouped in a variety of ways-explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment-recognise that environments can change and that this can sometimes pose dangers to living things |

Cowloe Class Year 5/6

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| Autumn Term 1 | Autumn Term 2 | Spring Term 1 | Spring Term 2 | Summer Term 1 | Summer Term 2 |
| **Mayans**Electricity (stand alone unit)-associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit-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-use recognised symbols when representing a simple circuit in a diagram | **Mexico** | **World War 2**Light-recognise that light appears to travel in straight lines-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-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-use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them | **Immigrants and refugees** | **Blood Heart**Animals Including Humans-describe the changes as humans develop to old age-identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood-recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function-describe the ways in which nutrients and water are transported within animals, including humans | **Local History – mining**Forces-recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect-Identify the effects of air resistance, water resistance and friction, that act between moving surfaces |