|  |  |
| --- | --- |
| **ZERO TO HERO** | |
| **COMPOSITES** | **COMPONENTS** |
| To observe and name a variety of sources of light, including electric lights, flames and the Sun | To know that light is the opposite to dark  To know that the Sun provides us with natural light and energy  To know that fire provides light  To know that many of our light sources are artificial or man-made light e.g electric lights  To know that we use many different sources of light in our daily lives |
| To know that fire has been used throughout history for heat and light | To know that fire can be dangerous and can cause damage or injury (burns)  To know that fire can keep us warm  To know that fire can give us light when it’s dark  To know that flames from fires and candles give us light and heat  To know that heat from fires and candles can be dangerous (melting)  To know that Thomas Edison invented the first safe light bulb |
| **To know about simple circuits involving batteries, wires, bulbs and other components (NC)**  **To know how a switch can be used to break a circuit (NC)** | To know that a battery is an energy source  To know that there are + and – signs on a battery  To know that batteries need to be arranged the right way round for electricity to work  To know that a circuit is a complete path around which electricity can flow  To know that the circuit must be complete for the batteries to work  To know that we use switches on electrical appliances to turn things on and off  To know that the switch creates a a gap in the flow of energy around a circuit |

|  |  |
| --- | --- |
| **LAND AHOY!** | |
| **COMPOSITES** | **COMPONENTS** |
| **To compare how different things move**  **(NC) (LKS2)** | To know that different things move in different ways  To know that a force is a push or a pull on an object  To know that when you use a force to move a thing closer to you it is called a pull force  To know that when you use force to move a thing away from you it is called a push force  To know that gravity is an invisible force that pulls objects to the earth |
| To notice and describe how things are moving, using simple comparisons such as faster and slower | To know that when an object sits on the water this is called floating  To know that some materials float better than others  To know that the shape of an object determines whether it sinks or floats  To know that friction is the force created when two surfaces rub against each other  To know that friction always slows a moving object down  To know that the rougher the surface, the more friction is produced |
| To understand that there are many different kinds of sound and sources of sound | To know that a sound is something we can hear with our ears  To know that a source is the start of something  To know that different objects make different sounds when they are hit |
| **To know that sounds get fainter as the distance from the sound source increases**  **(NC) (LKS2)** | To know that fainter means weaker or quieter  To know that the nearer we are from a sound source, the louder it will be  To know that the further away we are from a sound source, the weaker it will be |

|  |  |
| --- | --- |
| **GOING WILD** | |
| **COMPOSITES** | **COMPONENTS** |
| **To understand the difference between things that are living and things that have never been alive (NC)** | To know that living things breathe, reproduce, grow and adapt and non-living things do not  To know that some things were once alive e.g. fossils  To know that some things have never been alive e.g. rocks |
| **To learn that animals, as well as humans, have offspring, which grow into adults (NC)** | To know that offspring are babies  To know that babies need looking after including feeding in order to grow  To know that animals and human bodies change shape as they grow  To know that adults are all grown up |
| **To learn about the basic needs of animals, as well as humans, for survival (which are food, water and air) (NC)** | To know that all living things need food, water and air to stay alive  To know that different living things need different types of food e.g. plants get their food from the soil |
| **To identify and name a variety of common animals that are birds, fish, amphibians, reptiles and mammals (NC)** | To know that different types of animals can be grouped according to things they have in common |
| **To describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) (NC)** | To know that a bird is an animal with two wings, two feet and a body covered with feathers.  To know that a fish is an animal with a backbone (vertebrates)that lives in water  To know that amphibians are cold blooded, have a backbone (vertebrate) and that they live part of the time on land and part of the time in water. They do not have scales  To know that reptiles are cold blooded, have a backbone (vertebrate), have scales and can lay eggs  To know that mammals, including humans, are warm blooded animals, have a backbone (vertebrate), have hair and feed their young with milk |

|  |  |
| --- | --- |
| **GOING WILD (cont.)** | |
| **COMPOSITES** | **COMPONENTS** |
| **To identify and name a variety of common animals that are carnivores, herbivores and omnivores (NC)** | To know that a carnivore is an animal which only eats meat  To know that a herbivore is an animal which only eats plants  To know that omnivores eat animals and plants |
| To recognise that environments can change and that this can sometimes post dangers to living things | To know that the actions we take impact the environment in which we live e.g. leaving litter can harm animals  To know that an animal or species is extinct if there are no more left living  To know that because of human actions in the past some animals are now extinct  To know that because of the actions of humans today some animals are nearly extinct  To know that animals that are nearly extinct are called endangered  To know that a habitat is where animals live, feed and raise their young |
| To know that some animals are endangered, the reasons why and what is being done to preserve these species | To know that endangered means that an animal or species is in danger of becoming extinct  To know that humans destroy habitats by cutting down forests, building more houses or draining the land of water  To know that preserve means to keep safe from harm  To know that there are organisations who are working to preserve habitats e.g. WWP  To know that some areas are protected wildlife areas by law |

|  |  |
| --- | --- |
| **THE FOUR SEASONS PROJECT** | |
| **COMPOSITES** | **COMPONENTS** |
| To observe and describe weather associated with the four seasons and how day length varies | To know that the weather explains the daily conditions outside e.g. hot or cold, wet or dry, windy or calm  To know that there are 4 seasons in a year in the UK and that the weather changes in each season  To know that the length of daylight in the UK is shorter in winter and longer in the Summer  To know that weather is coldest an winter and warmest or hottest in the Summer in the UK |