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| **COME FLY WITH ME! AFRICA** | |
| **COMPOSITES** | **COMPONENTS** |
| **To recognise that living things can be grouped in a variety of ways (NC)** | To know that living things can be grouped as animals (including humans) or plants  To know that animals can be grouped as vertebrates or invertebrates  To know that vertebrates have a backbone/spine  To know that vertebrates can be grouped as amphibians, reptiles, birds, fish and mammals  To know that invertebrates do not have a backbone  To know that amphibians are cold-blooded animals that live partly on the land and partly in water  To know that reptiles are cold-blooded, have scaly skin and usually lay soft-shelled eggs  To know that fish live in water and breathe through special organs called gills  To know that mammals (including humans) are warm-blooded with hair |
| **To understand and use classification keys to help group, identify and name a variety of living things in their local and wider environment (NC)** | To know that a classification key asks a series of questions to help group living things or objects in the natural world by their physical characteristics  To know the names of a variety of living things in the local area and be able to identify them  To know the names of a variety of living things in the wider environment and be able to identify them |
| **To know that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat (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 an omnivore eats animals and plants  To know that nutrition is the study of food and how it works inside your body  To know that a food chain describes how plants and animals are linked by what they eat |
| **To know the different types of teeth on humans and their simple functions (NC)** | To know that teeth are hard structures found in vertebrates to help them bite and chew food  To know that Incisors are at the front of the mouth and help you to bite off and chew pieces of food  To Know that canines are next to the incisors and are used for tearing and ripping food  To know that molars are teeth at the back of the mouth and these help you to crush and grind food |
| **COME FLY WITH ME! AFRICA (cont.)** | |
| **COMPOSITES** | **COMPONENTS** |
| **To know and describe the simple functions of the basic parts of the digestive system (NC)** | To know that all living things need food, water and air to stay alive  To know that the digestive system is the part of the body that helps to break down food for the body to process and use  To know that food enters the digestive system as soon as you put it into your mouth  To know that once food has been swallowed it travels down a tube called the oesophagus into the stomach  To know that the stomach contains acid that kill any germs within the food  To know that food then travels to the small intestine where food is broken down into nutrients that are absorbed into the blood  To know that water is absorbed into the blood through the large intestine  To know that any food that can’t be absorbed is stored in the anus until we go to the toilet |
| **To know how to construct and interpret a variety of food chains, identifying producers, predators and prey (NC)** | To know that a food chain describes how plants and animals are linked by what they eat  To know that every living thing needs food to survive and, because of this, all living things are part of a food chain  To know that animals eat plants or other animals to get their energy  To know that a predator is an animal that hunts and kills other animals for food  To know that animals that are hunted and eaten by animals are called prey  To know that plants are at the beginning of most food chains because they make their own food, so they are called producers  To know that plants get their energy from sunlight and that this is called photosynthesis  To know that the animal at the top of the food chain is called the top predator  To know that any changes in the food chain affects all living things, as they depend on each other (interdependence) |

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| **COME FLY WITH ME! AFRICA (cont.)** | |
| **COMPOSITES** | **COMPONENTS** |
| **To know that humans and some other animals have skeletons and muscle for support, protection and movement (NC)** | To know that a skeleton is a framework of bones that supports the body and keeps it upright  To know that the human skeleton is made up of bones which grow as we grow  To know that the skeleton protects the softer body parts e.g the skull protects the brain, and the ribs protect the heart, lungs and other vital organs  To know that muscles pull on the bones so that they can move  To know that some bones have joints to make this movement easier e.g. elbow and knees |

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| **ROCKY THE FINDOSAUR** | |
| **COMPOSITES** | **COMPONENTS** |
| **To compare and group together different kinds of rocks on the basis of their appearance and simple physical properties (NC)** | To know that materials look and feel different and that these are known as their physical properties  To know that rocks are found naturally, are solid and are made up of one or more minerals  To know that a mineral is normally a solid material with a characteristic chemical composition that is naturally made and is found in rocks  To know that some materials look like rocks, but they are man-made e.g. bricks  To know that there are three main types of rocks – sedimentary, igneous and metamorphic  To know that porous rocks have spaces or gaps in them that allow water to get in, often making the rock soft and crumbly  To know that some rocks allow water to flow through and this is called permeability |
| **To know and describe in simple terms how fossils are formed when things that have lived are trapped within rock (NC)** | To know that an animal or species is declared extinct when there is no reasonable doubt that the last individual member has died  To know that a fossil is the preserved remains of a dead plant or animal  To know that, after an animal dies, the hard parts like the skeleton are left behind and become buried in small particles of rock called the sediment  To know that the sediment builds on top of the skeleton which, over millions of years, turns into a rock  To know that, over time, water passes through the rock, dissolving the bones which are replaced by minerals  To know that minerals leave a rock replica of the original bone called a fossil |

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| **ROCKY THE FINDOSAUR (cont.)** | |
| **COMPOSITES** | **COMPONENTS** |
| **To recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago (NC) (UKS2)** | To know that, over time, rocks can change shape or break because of wind, water or ice and this is called weathering  To know that parts of the broken-down rock are then carried away in a process called erosion  To know that fossils are rocks which have imprints of animals and plants that lived a long time ago  To know that fossils show us how living things have changed since the time they were alive  To know that we can use fossils to learn what extinct plants and animals looked like  To know that a palaeontologist is a scientist who studies animals and plants that lived millions of years ago and are represented by their fossils e.g., Mary Anning |
| **To know that soils are made from rocks and organic matter (NC)** | To know that soil is natural and is the top layer of the Earth’s surface  To know that soil is a mixture of living and non-living organic materials  To know that organic materials are recently living organisms that are capable of decay  To know that decay means to rot or break down into smaller pieces  To know that not all soils look or feel the same, depending on their composition  To know that clay soil is usually very sticky, has few air gaps and does not let water drain through it easily  To know that sandy soil has large particles, so lots of air gaps which let the water drain through it easily, leaving it usually feeling dry |
| **To compare and group materials together, according to whether they are solids, liquids or gases (NC)** | To know that materials look and feel different and that these are called their physical properties  To know that solids keep their shape, can be held, cut or shaped  To know that a liquid can flow or be poured easily and takes the shape of the container it is poured into, filling the same amount of space  To know that gas is often invisible and does not have a fixed shape, spreading out to fill a container |

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| **ROCKY THE FINDOSAUR (cont.)** | |
| **COMPOSITES** | **COMPONENTS** |
| **To know and observe how some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (oC) (NC)** | To know that temperature is a measure of how hot or cold something is  To know that temperature can be measured using an instrument called a thermometer  To know that Celsius is the unit of measurement we use to measure temperature  To know that liquids change when they are heated up or cooled down  To know that heating can melt a solid into a liquid  To know that freezing can turn a liquid into a solid  To know that if ice (solid) is heated, it changes into water (liquid) and this is called melting  To know that if water (liquid) is cooled, it changes into ice (solid) and that this is called freezing  To know that water freezes at 0°C |
| **To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature (NC)** | To know that the water cycle is the journey water takes as it moves from the land to the sky and back again  To know that when the sun heats up water on the land, it changes into a gas known as vapour and that this this process is called evaporation  To know that when the water vapour rises into the air, it cools down and joins to make tiny drops of water, which make clouds, and that this is called condensation  To know that, as the droplets of water in the clouds get bigger, they also get heavier and eventually fall as rain  To know that when the water falls back onto land, it travels through streams and rivers back into the sea and the cycle starts again |

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| **UNDER THE CANOPY** | |
| **COMPOSITES** | **COMPONENTS** |
| **To identify and describe the functions of different parts of flowering plants: roots, stem / trunk, leaves and flowers (NC)** | To know that plants need roots, leaves and a stem  To know that a root is the part of a plant that is underground  To know that a root’s main function is to anchor the plant in the ground and to absorb water and nutrients from the soil  To know that the stem carries water and nutrients to different parts of the plant  To know that the leaves are the green part of a plant that use sunlight to make their own food (photosynthesis)  To know that a flower is the part of a plant that produces seeds, which become new plants  To know that the main stem of a tree is called a trunk and this often splits into smaller branches |
| **To learn about and 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 (NC)** | To know that all plants need air, light, water, nutrients (nourishment found in food) and the right temperature to grow healthily  To know that plants come in many different shapes and sizes  To know that some plants have flowers and others do not  To know that rainforests are an important part of life on our planet  To know that rainforests provide us with oxygen, which we need to breathe and help stabilise the Earth’s climate |
| **To investigate the way in which water is transported within plants (NC)** | To know that plants need water to survive  To know that water is absorbed from the soil through the roots and carried up the stem  To know that the stem contains small tubes that carry water to different parts of the plant |

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| **UNDER THE CANOPY (cont.)** | |
| **COMPOSITES** | **COMPONENTS** |
| **To know and explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal (NC)** | To know that when a plant grows from a seed it is called germination and that the stem, leaves and flowers emerge above the soil  To know that pollen is a fine powder produced by plants so that they can make seeds  To know that pollen is carried by insects or blown by the wind and that this process is called pollination  To know that, when the pollen reaches another flower, it travels to the ovary, where it fertilises the egg cells which makes seeds, and that this process is called fertilisation  To know that seeds are scattered by animals or the wind and that this is called seed dispersal  To know that different plants have adapted to grow in different environments e.g. cacti in the desert  To know how environments can be managed to ensure successful plant growth and reproduction e.g. farming |