|   |   |  | Science 2   | 025-26 Overview          |   |   |               |  |  |  |  |
|---|---|--|---|--------------------------|---|---|---------------|--|--|--|--|
| FOUNDATION  | EYFS Development Matters 2020 Statements Three and Four Year Olds   |  |   |                          |   |   |               |  |  |  |  |
| STAGE   | Use all their senses in hands-on exploration of natural materials.  |  |   |                          |   |   |               |  |  |  |  |
|   | Explore collections of materials with similar and/or different properties.  |  |   |                          |   |   |               |  |  |  |  |
|   | Talk about what they see, using a wide vocabulary.  |  |   |                          |   |   |               |  |  |  |  |
|   |   | Plant seeds and care for growing plants.                       |   |                          |   |   |               |  |  |  |  |
|   | Understand the k  | ey features of the life  | e cycle of a plant and  | d an animal.             |   |   |               |  |  |  |  |
|   |   | · ·  |   | natural environment an   | d all living things.  |   |               |  |  |  |  |
|   | Explore and talk a  | about different forces   | s they can feel.  |                          |   |   |               |  |  |  |  |
|   | Talk about the differences between materials and changes they notice.   |  |   |                          |   |   |               |  |  |  |  |
|   | EYFS Developmen   | EYFS Development Matters 2020 Statements Children in Reception |   |                          |   |   |               |  |  |  |  |
|   | Explore the natur   | al world around ther   | n.  |                          |   |   |               |  |  |  |  |
|   | Describe what the   | ey see, hear and feel  | whilst outside.   |                          |   |   |               |  |  |  |  |
|   | Understand the effect of changing seasons on the natural world around them.   |  |   |                          |   |   |               |  |  |  |  |
|   | Early Learning Goals  |  |   |                          |   |   |               |  |  |  |  |
| The Natural World ELG Children at the expected level of development will: - |   |  |   |                          |   |   |               |  |  |  |  |
|   | Explore the natural world around them, making observations and drawing pictures of animals and plants.  Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experience and what has been read in class. |  |   |                          |   |   |               |  |  |  |  |
|   |   |  |   |                          |   |   |               |  |  |  |  |
|   |   |  |   |                          |   |   |               |  |  |  |  |
|   | Understand some   | e important processe   | s and changes in the  | natural world around t   | hem, including the se   | easons and changing stat                              | es of matter. |  |  |  |  |
| AGE PHASE   | YEAR GROUP AUTUMN   |  |   | SPRING                   |   | SUMMER  |               |  |  |  |  |
|   |   |  |   |                          |   |   |               |  |  |  |  |
|   |   | Animals, including   | Materials.  | Seasonal Change.         | Animals, including  | Plants.   |               |  |  |  |  |
| KS1   | 1   | humans.  | Distinguish between an  | Observe and describe how | humans.   | •Identify and name a variety                          |               |  |  |  |  |
| -   |   | •Identify, name, draw and label the basic parts                | object and the material from which it is made                   | day length varies        | <ul> <li>Identify and name a<br/>variety of common</li> </ul> | of common wild and garden plants, including deciduous |               |  |  |  |  |
|   |   | of the human body and  | •Identify and name a  |                          | animals including fish,                                       | and evergreen trees                                   |               |  |  |  |  |
|   |   | say which part of the  | variety of everyday   |                          | amphibians, reptiles,   | •Identify and describe the                            |               |  |  |  |  |
|   |   | body is associated with  | materials, including  |                          | birds, and mammals  | basic structure of a variety of                       |               |  |  |  |  |
|   |   | each sense   | wood, plastic, glass,<br>metal, water, and rock                 |                          | <ul> <li>Identify and name a<br/>variety of common</li> </ul> | common flowering plants, including trees              |               |  |  |  |  |
|   |   |  | Describe the simple   |                          | animals that are  | merading trees  |               |  |  |  |  |
|   |   |  | physical properties of a  |                          | carnivores, herbivores,                                       |   |               |  |  |  |  |
|   |   |  | variety of everyday   |                          | and omnivores   |   |               |  |  |  |  |
|   |   |  | materials   |                          | Describe and     semana the structure                         |   |               |  |  |  |  |
|   |   |  | <ul> <li>Compare and group<br/>together a variety of</li> </ul> |                          | compare the structure of a variety of common                  |   |               |  |  |  |  |
|   |   |  | everyday materials on   |                          | animals (fish,  |   |               |  |  |  |  |
|   | 1   |  |   | 1                        | amphihians rentiles   |   |               |  |  |  |  |

animals (fish, amphibians, reptiles,

|      |   | Seasonal Change.  • Observe changes across • Observe and describe we   |  | easons and how day length varies   | birds, and mammals,<br>including pets)   |   |  |
|------|---|--|--|--|--|---|--|
|      | 2 | Animals, including humans.  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 |  | Living things and their habitats.  •Understand that animals, including humans, have offspring which grow into adults  •Explore and compare the difference 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 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  •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. |  | 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  •Describe how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting, and stretching  •Identify forces when squashing, bending, twisting and stretching solid objects  | 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 |
|      |   | Assistate including  | Plants.  •Observe and describe how seeds and bulbs grow into mature plants  Rocks and Soils. Magnets. Light and Shadows. Plants.   |  |  |   |  |
| LKS2 | 3 | Animals, including humans.  •Identify that animals, including humans, need the right types and amount of nutrition •Identify that animals, including humans, cannot make their own food; they get nutrition from what they eat           | Rocks and Soils.  Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties  Describe in simple terms how fossils are formed when things | Magnets. • Notice that some forces need contact between two objects, but magnetic forces can act at a distance • Observe how magnets attract or repel each other and attract some materials and not others • Compare and group together a variety of everyday  | Light and Shadows.  Recognise that he/she needs 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 | •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 |  |

|      |   |  | that have lived are<br>trapped within rock<br>•Recognise that soils are<br>made from rocks and<br>organic matter  | materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials •Describe magnets as having two poles •Predict whether two magnets will attract or repel each other, depending on which poles are facing   | there are ways to protect eyes •Recognise that shadows are formed when the light from a light source is blocked by a solid object •Find patterns in the way that the size of shadows change  |  |  |
|------|---|--|---|---|--|--|--|
|      | 4 | Materials - 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)  Recognise that some materials will dissolve in liquid to form a solution,  Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering and sieving  Demonstrate that dissolving, mixing and changes of state are reversible changes  The Water Cycle (linked to Rivers)  Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature |   | Electricity.  •Identify common appliances that run on electricity  •Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers  •Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery  •Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit  •Recognise some common conductors and insulators, and associate metals with being good conductors  | Forces.  Compare how things move on different surfaces Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Identify the effects of air resistance, water resistance and friction, that act between moving surfaces Explore the effects of friction on movement and find out how it slows or stops moving objects | Animals, including humans.  •Identify that humans and some other animals have skeletons and muscles for support, protection and movement  •Identify the different types of teeth in humans and their simple functions  •Construct and interpret a variety of food chains, identifying producers, predators and prey  | 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 and have an impact on living things |
| UKS2 | 5 | Plants. •Explore the requirements of seeds for germination and how they vary from plant to plant •Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal •Find out about different types of reproduction, including sexual and asexual reproduction in plants  | Living things and their habitats.  Describe the differences in the life cycles of a mammal, an amphibian, an insect, and a bird  Describe the life process of reproduction in some plants and animals  Find out about different types of reproduction, including sexual and asexual reproduction in plants and sexual reproduction in animals | Animals, including humans.  Describe the simple functions of the basic parts of the digestive system in humans  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  Describe the changes as humans develop to old age  Transported within animals, including humans  Describe the changes as humans develop to old age  Transported within animals, including humans |  | Sound.  •Identify how sounds are made, associating some of them with something vibrating  •Recognise that vibrations from sounds travel through a medium to the ear  •Find patterns between the pitch of a sound and features of the object that produced it  •Find patterns between the volume of a sound and the strength of the vibrations that produced it  •Recognise that sounds get fainter as the distance from the sound source increases | Earth and Space.  • Describe the movement of the Earth, and other planets, relative to the Sun in the solar system  • Describe the movement of the Moon relative to the Earth  • Describe the Sun, Earth and Moon as approximately spherical bodies  • Use the idea of the Earth's rotation to explain day and night and the apparent                        |

|   |  | •Find out about the work of naturalists and animal behaviourists, for example, David Attenborough   |   |  |   | movement of the sun<br>across the sky  |
|---|--|---|---|--|---|--|
| 6 | Forces recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect | Electricity.  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  Construct simple series circuits to answer questions about what happens when they try different components | Living things and their habitats.  Micro-organisms  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 Give reasons for classifying plants and animals based on specific characteristics Know that broad groupings, such as micro-organisms, plants and animals can be subdivided Classify animals into commonly found invertebrates and vertebrates Find out about the significance of the work of scientists such as Carl Linnaeus, a pioneer of classification | 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  Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents  Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution  Introduce the idea that characteristics are passed from parents to their offspring over time can make animals more or less able to survive in particular environments  Find out about the work of palaeontologists such as Mary Anning | 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 | Materials.  • Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible,  • Recognise that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution  • Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating |