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| Year Group | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | | Summer 2 |
| **EYFS, Y1 and Y2 all use PLAN resources to support the planning of Development Matters and the Science National Curriculum.** | | | | | | | |
| Nursery | Seasons  **(ongoing all year)**   * Talk about what they see, using a wide vocabulary. * Observe how the weather changes across the four seasons.   Preparing children for:  Reception) Materials | To explore the natural world around them, including forces and natural  Processes. | Humans and Senses   * Name the body parts and explore what can we do with them, * Learn how we can look after ourselves (e.g. hygiene, exercise) * Name the five senses and explore what we can we do with them. * Explore what we can do with our senses whilst outside. | Consolidation and additional time for Seasons and Natural processes. | Animals and Habitats | Plants and Habitats   * What is a plant? Identify a plant and a tree. * Name some parts of plants. * Learn how to plant seeds and care for growing plants | |
| (Reception) | Seasons  **(ongoing all year)**   * Understand the effect of changing seasons on the natural world around them. * Talk about what they see, using a wide vocabulary. * Observe how the weather changes across the four seasons.   Preparing children for: Year 1 Seasons  Materials   * Identify and name some everyday materials (wood, plastic, glass, metal, water and rock). * Explore collections of materials with similar and/or different properties, and talk about it. * Talk about changes they notice.   Preparing children for:  Year1 Materials | To explore the natural world around them, including forces and natural  processes.   * Explore and talk about different forces they can feel * Observe and interact with natural processes. | Humans and Senses  • Name and describe people who are familiar to them.  • Talk about members of their immediate family and community.  •Demonstrating and talking about how they look after themselves  • Talking about other people that look after them  Preparing children for:  Year1 My Body | Consolidation and additional time for Seasons and Natural processes. | Animals and Habitats   * Name and describe common animals (examples of fish, amphibians, reptiles, birds and mammals). * Use the local environment and first hand experiences to observe animals and learn how to care for them. * Animal life cycles.   Preparing children for:  Year1 Animals | Plants and Habitats   * What is a plant? Identify a plant and a tree. * Name some parts of plants. * Learn how to plant seeds and care for growing plants. * Understand the key features of a plant lifecycle. * Begin to understand the need to respect and care for the natural environment and all living things.   Preparing children for:  Year1 Plants | |
| 1 | Prior learning: EYFS Senses  My Body   * Identify and name the basic parts of the human body. * Draw and label the basic parts of the human body. * Identify the five senses and the associated body part. * Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals   including pets)  Preparing children for: Year 2 Animals | Prior learning: EYFS Materials  Materials   * Distinguish between an object and the material from which it is made * Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock * Describe the simple physical properties of a variety of everyday materials * Compare and group together a variety of everyday materials on the basis of their simple physical properties   Preparing children for: Y2 Materials | Prior learning: EYFS Animals  Animals   * Identify and name a variety of common animals (fish, amphibians, reptiles, birds and mammals) * identify and name a variety of common animals that are carnivores, herbivores and omnivores * Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals   including pets)  Preparing children for: Year 2 Animals. | \*Consolidation of knowledge and skills.  \*Cross Curricular Links  \*Child Led Enquiry. | Prior learning:  EYFS Plants  Plants   * Identify and name a variety of garden plants. ​ * Identify and name a variety of wild plants.​ * Identify and name a variety of trees, including deciduous and evergreen trees. ​ * Identify different parts of plants​ * Investigate plants in the local area.   Preparing children for: Year 2 Plants | Prior learning: EYFS Seasons  Seasons (ongoing from Autumn)   * observe changes across the four seasons * observe and describe weather associated with the seasons * Observe and describe how day length varies associated with the seasons | |
| 2 | Prior learning: EYFS and Y1 Animals and Our Body  Animals   * To find out about the offspring of a variety of different animals. * To describe how humans grow as they get older. * To find out about and describe what animals, including humans, need to survive. * To describe the importance of eating a healthy, balanced diet, hygiene and exercise for humans. | Prior learning: EYFS and Y1 Materials  Materials   * Recall a variety of materials and sort them according to their physical properties. * Explore that some materials can change shape by squashing, bending, stretching and twisting and others can’t. * Identify the suitability of materials (e.g. wood, metal plastic) for particular uses. * Compare the suitability of materials (e.g. wood, metal, plastic) for particular uses.   Preparing children for: Year 3 Rocks, Year 4 Materials. | Working Scientifically- Physics and Chemistry focus. | Preparing children for: Year 3 Animals.  Prior learning: EYFS and Year 1 Animals  Living Things   * To explore and compare the differences between things that are living, dead and things that have never been alive. * To describe how different habitats provide for the basic needs of different kinds of animals and plants. * To identify and name and variety of plants and animals in familiar habitats. * To identify and name and variety of plants and animals in unfamiliar habitats. * To identify and name a variety of microhabitats. * To describe how animals obtain their food using the idea of a simple food chain.   Preparing children for: Year 4 Living Things. | Prior learning: EYFS and Y1 Plants.  Plants   * To describe how seeds grow into mature plants. * To describe how bulbs grow into mature plants. * To find out about the conditions that affect germination. * Describe how plants need water, light and a suitable temperature to grow and stay healthy. * To observe how a plant changes as it matures.   Preparing children for: Year 3 Plants | \*Consolidation of knowledge and skills.  \*Cross Curricular Links  \*Child Led Enquiry. | |
| Years 3, 4, 5, 6 all use the framework from Haringey Education Partnership to teach the Science National Curriculum. | | | | | | | |
| 3 | **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. | **Rocks**   * 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 that have lived are trapped within rock. * recognise that soils are made from rocks and organic matter | **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 a solid object * find patterns in the way that the size of shadows changes | **Animals, including human**   * identify 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   * identify that humans and some other animals have skeletons and muscles for support, protection and movement. | **Forces and magnets**   * compare how things move on different surfaces * 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 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 | |  |
| 4 | 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. | **Animals, including human**   * describe the simple functions of the basic parts of the digestive system in humans * 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. | **Sound**   * identify how sounds are made, associating some of them with 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 | **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 | **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 * recognisesome common conductors and insulators, and associate metals with being good conductors | |  |
| 5 | **Properties and changes of materials**   * compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets * know 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 * give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic * demonstrate that dissolving, mixing and changes of state are reversible changes.   explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda  . | **Animals, including humans**   * describe the changes as humans develop to old age | **Forces**   * 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   recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect across the sky | **Living Things**   * 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 | **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 movement of the Sun | |  |
| 6 | Animals   * (Y6) identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood * (Y6) recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function * (Y6) describe the ways in which nutrients and water are transported within animals, including humans | **Light**   * (Y6) recognise that light appears to travel in straight lines * (Y6) 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 * (Y6) 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 * (Y6) use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. | **Electricity**   * (Y6) associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit * (Y6) 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 * (Y6) use recognised symbols when representing a simple circuit in a diagram | **Evolution and inheritance**   * (Y6) recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago * (Y6) recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents   (Y6) identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution | Living Things   * (Y6) 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   * (Y6) give reasons for classifying plants and animals based on specific characteristics. | |  |