**KNOWLEDGE:**

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| **2020-2021** | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Year 1** | **Animals inc Humans**  **Knowledge**  \*Name a variety of common animals:  fish, amphibians, reptiles, carnivores, herbivores, omnivores etc.  \*Describe and compare the structure of common animals.  \*Identify, name and draw parts of the human body and say which part is associated with each sense.  **Seasonal Changes**  **Knowledge**  \*Observe changes across the 4 seasons.  \*Observe and describe weather | **Animals inc Humans**  Continued from Autumn 1 | **Plants**  **Knowledge**  \*Name a variety of common plants & trees  \*Identify and describe the basic structure of a variety of common flowering plants.  **Seasonal Changes**  **Knowledge**  \*Observe changes across the 4 seasons.  \*Observe and describe weather | **Plants**  Continued from Spring 1 | **Materials**  **Knowledge**  \*Different materials  \*Name variety of materials.  \*Describe the physical property of everyday materials.  \*Group materials  **Seasonal Changes**  **Knowledge**  \*Observe changes across the 4 seasons.  \*Observe and describe weather | **Materials**  Continued from Summer 1 |
| **Year 2** |  | **Materials**  **Knowledge**  \*Identify and compare suitability of materials including wood, metal, plastic, glass, brick, rock, paper and cardboard.  \*Squashing, bending, twisting and stretching. | **Living Things and Their Habitats**  **Knowledge**  \*Explore the difference between living, dead & never been alive.  \*Identify living things live in habitats.  \*Identify and name a variety of plants and animals.  \*Describe how animals obtain their food. | **Plants**  **Knowledge**  \*Functions of different kinds of plants.  \*Requirements of survival.  \*How water is transported.  \*Life cycle: pollination, seed formation and seed dispersal. |  | **Animals inc Humans**  **Knowledge**  \*Notice that animals and humans have offspring which grow into adults.  \*Understand the basic need of survival (water, food &air).  \*Understand the importance of exercise, food types and hygiene |
| **Year 3** | **Animals inc Humans**  **Knowledge**  Human Nutrition  \*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. | **Animals inc Humans**  **Knowledge**  Skeletons/Muscles  \* identify that humans and some other animals have skeletons and muscles for support, protection and movement. | **Magnets and Forces**  **Knowledge**  \*Different surfaces.  \*Contact between 2 forces.  \*Magnets attract and repel.  \*Magnetic materials.  \*2 poles. | **Rocks and Fossils**  **Knowledge**  \*Group and compare.  \*Describe how fossils are formed.  \*Recognise that soils are made from rocks and organic matter. | **Light**  **Knowledge**  \*Understand that we need light to see.  \*Reflection  \*Dangers of sunlight.  \*Shadows  \*Shadow changes and patterns. | **Plants**  **Knowledge**  \*Functions of different kinds of plants.  \*Requirements of survival.  \*How water is transported.  \*Life cycle: pollination, seed formation and seed dispersal. |
| **Year 4** | **Earth and Space (Year 5)** | **Living Things and Their Habitats**  **Knowledge**  \*Group living things in a variety of ways.  \*Use classification keys to group, identify and name living things in their local and wider environment.  \*Understand that environments change. | **Animals inc Humans**  **Knowledge**  \*Functions of the digestive system.  \* Teeth and their functions.  \*Construct and interpret a variety of food chains, identifying producers, predators and prey.  . | **Sound**  **Knowledge**  \*Identify how sounds are made.  \*Vibrations travel.  \*Patterns of pitch.  \*Patterns between volume  \*Understand that sounds get fainter due to distance. | **Electricity**  **Knowledge**  \*Construct circuits.  \*Identify whether or not a lamp will light in a 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.  \*Conductors and insulators. | **States of Matter**  **Knowledge**  \*Compare and groups solids, liquids and gasses.  \*Change of state (heated or cooled).  \*Evaporation & condensation. |
| **Year 5** | **Earth and Space**  **Knowledge**  \*Movement of the Earth and other planets.  \*Describe the movement of the Moon relative to the Earth.  \*Describe the Sun, Earth and Moon as approximately spherical bodies.  \*Explain day and night and the apparent movement of the sun across the sky. | **Living Things and Their Habitats**  **Knowledge**  \*Difference of life cycles of mammals, amphibians, an insect & a bird.  \*Life process of reproduction in some plants and animals. | **Animals inc Humans**  **Knowledge**  \*Describe the changes as humans develop to old age. | **Forces**  **Knowledge**  \*Understanding gravity.  \*Understanding air resistance &water resistance that act between moving surfaces.  \*Mechanisms, levers, pulleys and gears. | **Properties of Materials**  **Knowledge**  \*Grouping of materials based on their properties.  \*Dissolve  \*Separation  \*Change of state  \*Reversible changes. | **Electricity (Catch Up Year 4)** |
| **Year 6** |  | **Light**  **Knowledge**  \*Recognise that light travels in straight lines.  \*Understand that objects are seen because they give out or reflect light into the eye.  \*Explain that we see things because light travels from light source to our eyes or from light source to objects and then to our eyes.  \*Shadows have the same shape as the object that cast them. | **Electricity**  **Knowledge**  \*Understand that the voltage of cells will increase/decrease the sound of a buzzer or brightness of a lamp.  \*Give reasons for variations in how components function.  \*Use recognised symbols when representing a circuit in a diagram. | **Evolution**  **Knowledge**  \*Recognise that living things change over time.  \*Understand that fossils provide information about living things.  \*Recognise that living things produce offspring of the same kind.  \*Identify how animals and plants are adapted to suit their environment. |  | **Living Things and their Habitats**  **Knowledge**  \*Describe how things are classified into groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.  \*Give reasons for classifying plants & animals.  **Animals Including Humans**  **Knowledge**  \*Identify and name main parts of the human circulatory system.  \*Describe the functions of the heart, blood vessels and blood.  \*Recognise the impact of diet, exercise, drug and lifestyle on their bodies.  \*How water and nutrients are transported within animals & humans. |

**VOCABULARY:**

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| **2020-2021** | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Year 1** | **Animals inc Humans**  **Vocabulary:**  Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves  Senses – touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue  **Seasonal Changes**  **Vocabulary:**  Weather (sunny, rainy, windy, snowy etc.)  Seasons (winter, summer, spring, autumn)  Sun, sunrise, sunset, day length | **Animals inc Humans**  Continued from Autumn 1 | **Plants**  **Vocabulary:**  Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud  Names of trees in the local area Names of garden and wild flowering plants in the local area  **Seasonal Changes**  **Vocabulary:**  Weather (sunny, rainy, windy, snowy etc.)  Seasons (winter, summer, spring, autumn)  Sun, sunrise, sunset, day length | **Plants**  Continued from Spring 1 | **Materials**  **Vocabulary:**  Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through  **Seasonal Changes**  **Vocabulary:**  Weather (sunny, rainy, windy, snowy etc.)  Seasons (winter, summer, spring, autumn)  Sun, sunrise, sunset, day length | **Materials**  Continued from Summer 1 |
| **Year 2** |  | **Materials**  **Vocabulary:**  Names of materials – wood, metal, plastic, glass, brick, rock, paper, cardboard  Properties of materials – as for Year 1 plus opaque, transparent and translucent, reflective, nonreflective, flexible, rigid Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching | **Living Things and Their Habitats**  **Vocabulary:**  Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed  Names of local habitats e.g. pond, woodland etc.  Names of micro-habitats e.g. under logs, in bushes etc. | **Plants**  **Vocabulary:**  As for Year 1 plus light, shade, sun, warm, cool, water, grow, healthy |  | **Animals inc Humans**  **Vocabulary:**  Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta) |
| **Year 3** | **Animals inc Humans**  **Vocabulary:**  Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, joints, support, protect, move, skull, ribs, spine | **Animals inc Humans** | **Magnets and Forces**  **Vocabulary:**  Force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole | **Rocks and Fossils**  **Vocabulary:**  Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil | **Light**  **Vocabulary:**  Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous | **Plants**  **Vocabulary:**  Photosynthesis, pollen, insect/wind pollination, seed formation, seed dispersal (wind dispersal, animal dispersal, water dispersal) |
| **Year 4** | **Earth and Space (Year 5)** | **Living Things and Their Habitats**  **Vocabulary:**  Classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate | **Animals inc Humans**  **Vocabulary:**  Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain | **Sound**  **Vocabulary:**  Sound, source, vibrate, vibration, travel, pitch (high, low), volume, faint, loud, insulation | **Electricity**  **Vocabulary:**  Electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect/connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol | **States of Matter**  **Vocabulary:**  Solid, liquid, gas, state change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle |
| **Year 5** | **Earth and Space**  **Vocabulary:**  Earth, Sun, Moon, (Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune), spherical, solar system, rotates, star, orbit, planets | **Living Things and Their Habitats**  **Vocabulary:**  Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings | **Animals inc Humans**  **Vocabulary:**  Puberty – the vocabulary to describe sexual characteristics | **Forces**  **Vocabulary:**  Force, gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears | **Properties of Materials**  **Vocabulary:**  Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve, reversible/non-reversible change, burning, rusting, new material | **Electricity (Catch Up Year 4)** |
| **Year 6** |  | **Light**  **Vocabulary:**  As for Year 3 - Light, plus straight lines, light rays | **Electricity**  **Vocabulary:**  Circuit, complete circuit, circuit diagram, circuit symbol, cell, battery, bulb, buzzer, motor, switch, voltage | **Evolution**  **Vocabulary:**  Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils |  | **Living Things and their Habitats**  **Vocabulary:**  Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering, non-flowering  **Animals Including Humans**  **Vocabulary:**  Heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs, lifestyle |