**Year A Science overview (2023-2024)**

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|  | **Term 1** | **Term 2** | **Term 3** | **Term 4** | **Term 5** | **Term 6** |
| FS2 | Understand, observe and comment on the seasonal changes of autumn.    Explore and ask questions about the natural world around them.  SEASONAL CHANGES – WELLY WALK | Understand and use the terms ‘same’ and ‘different’.  Know that plants grow from a seed and that they need light, air and water to grown.  Understand the basic needs of animas.  SAME+DIFFERENT ANIMAL CLASSIFICATION (NEEDS ADAPTING DOWN AS YR 1 LESSON) | Talk about features of the environment they are in and learn about cold environments.  Experiment and understand about the process of freezing and melting/thawing.  Understand, observe and comment on the seasonal changes of winter.  WINTER SEASONAL (USE ICECUUBES, NOT SNOWBALLS) | Children will make observations about plants discussing similarities and differences.  Understand, observe and comment on the seasonal changes of spring.  Name, identify and sort healthy/unhealthy foods.  Name, identify and group a range of fruits and vegetables.  Talk about the life cycle of plants and animals and what they need to survive (butterflies).  CATERPILLAR TO BUTTERFLY | Children will make observations about places discussing similarities and differences.  Experiment and make observations linked to floating and sinking and changing from a liquid to solid – linked to The Gingerbread Man  FLOATING + SINKING (NEEDS ADAPTING DOWN AS YR 1 LESSON) | Know some important processes including states of matter.  Make observations about animals discussing similarities and differences.  Understand, observe and comment on the seasonal changes of summer.  MATERIALS + CHANGING STATE (CHOCOLATE IN HAND) |
| Year 1/2 | **Living things and their habitats 1/2 (Micro Habitats)** | **Everyday Materials** | **Animals including humans 1/2** | **Animals including humans 2/2 (Exercise / Hygiene)** | **Living things and their habitats 2/2 (Food chains)** | **Plants** |
| KNOWLEDGE | • Explore and compare the differences 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 for 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 micro-habitats  LIVING NON-LIVING REVIEW | • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.  • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.  MATERIALS HUNT DO | • Notice that animals, including humans, have offspring which grow into adults.  • Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).  HANDSPANS | • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.  HYGIENE – SNEEZE TEST (EXAMPLARS ZUNAIRAH)  EXERCISE/FOOD – ANAYSE SCHOOL DINNER (EXAMPLARS ZUNAIRAH) | • 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.  MAKE FOOD CHAINS (EXEMPLARS MAX) | • 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.  PLANTS GROWTH DO – DIFFERENT CONDITIONS |
| Year 3/4 | **Humans including animals (Y4)** | **Sound** | **Rocks** | **Recap** | **Light** | **Forces** |
| KNOWLEDGE | • 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.  TEETH IN LIQUIDS | • 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.  STRING TELEPHONES | • 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.  ROCKS COMPARE | All the knowledge from the previous terms will be covered.  SOUND2 | • 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 an opaque object.  • Find patterns in the way that the size of shadows change.  SHADOWS | • 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.  MAGNETS |
| Year 5/6 | **Forces** | **Materials (Y5) - changes** | **Recap (work sci)** | **Materials (Y5) – mixtures and separation** | **Evolution and inheritance** | **Recap (work sci)** |
| KNOWLEDGE | • Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object and the impact of gravity on our lives.  • Identify the effects of air resistance, water resistance and friction, which act between moving surfaces.  • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.  FORCES TITANIC PULLEYS DO | • 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.  • comparative and fair tests, for the particular uses of everyday materials, including wood, metals 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 this kind of change is usually not reversible, including changes associated with burning and the action of acid on bicarbonate of soda  MATERIALS DISSOLVING | All the knowledge from the previous terms will be covered.  FORCES SPINNERS DO | • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.  • 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.  DISSOLVING – 3 LESSON OPTIONS | • 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.  EVOLUTION FOSSIL HABITATS | All the knowledge from the previous terms will be covered.  MATERIALS INSULATION  MATERIALS DISSOLVING 2 |