******Science Spring 1**

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| **EYFS** | **Year 1/2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Prior Knowledge:****Identify main features of their immediate environment and explore signs of Autumn/Winter.**  | **Prior Knowledge****Use of senses to explore immediate environment.**  | **Prior Knowledge**Plants grow from seeds and need light, water and space to grow.  | **Prior Knowledge**Investigating of senses to explore the environment.  | **Prior Knowledge** | **Prior Knowledge**Learn about animals and humans including the digestive system.  |
| **Intent:** Use their senses to describe their immediate environment. Express signs of winter and spring. Make observations andask questions about what they can see/hear and feel | **Intent:** To understand the difference between living and non-living things and how living things adapt to their habitat.  | **Intent:** Pupils will investigate and identify the parts of a flowering plant. They will be able to explain the function of different parts and will investigate and identify the conditions required for successful growth. | **Intent:** To be able to explain how sound is made and why we can hear it. | **Intent**Children will be able to understand our solar system and how it affects day and night and other key natural factors. | **Intent**Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. |
| **Sequence of Learning**Children can explore their outdoor environment using their senses on a Winter walk.  | **Sequence of Lessons:**1. Can I identify if things are living, non-living or dead using the acronym MRS. GREN
2. Can I make a plant maze?
3. Can I classify leaves?
4. Can I match plants and animals to their habitat?
5. Can I make a microhabitat?
6. Can I complete a habitat survey?
 | **Sequence of Lessons:**1. Identify and describe the different parts of flowering plants: roots, stem, leaves & flower. 2. Investigate the requirements of plants for growth – light, air, water, nutrients and how water is transported within plants. 3. Explore that part that flowers play in the life cycle of a flowering plant. 4. To explore the part that seed dispersal plays in the life cycle of a flowering plant | **Sequence of Lessons:****Sequence of lessons:** 1. Can I identify how vibrations are linked to making sound?
2. Can I understand how sound travels?
3. Can I explain what pitch is?
4. Can I explain what volume is?
 | **Sequence of Lessons:**1. Can I sort the planets in order of distance from the Sun?
2. Can I classify planets as either rocky or gas giant?
3. Can I describe the orbits of the planets as elliptical?
4. Can I explain why we have day and night on Earth and why this is cyclical?
5. Can I describe the Moon’s orbit around the Earth as elliptical?
6. Can I explain why the Sun, Moon and Earth are only roughly spherical?
 | **Sequence of Lessons:**1. To name and locate the main structures of the heart.
2. To describe the simple functions of the heart, veins and arteries?
3. To describe the function of the blood.
4. To describe the ways in which nutrients and water are transported.
5. To investigate how exercise affects the heart rate.
6. To complete a pig’s heart dissection.
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| **Key Vocabulary:**  **Winter, senses, explore, observe see, hear feel, touch, smell** | **Key Vocabulary:****life processes, living, movement, respiration, sensitivity, growth, reproduction, excretion, nutrition, suitability, habitat, adapt**  | **Key Vocabulary:** **air, light, water, nutrients, soil, support, anchor, reproduction, pollination, dispersal, transportation, flower, energy, growth, seedling, carbon dioxide, oxygen, sugar, photosynthesis, chlorophyll.** | **Key Vocabulary:** **Sound, vibration, travel, ear, pitch, loud, quiet, faint, volume, distance, strength, materials** | **Key Vocabulary:** **Earth, sun, moon, spherical, solar system, rotates, star, orbit, planet, galaxy, celestial body, hemisphere, lunar calendar, revolve, sundial** | **Key Vocabulary:** **Heart, Ventricle, Atrium, Vein, Artery, Blood, Circulatory, Muscle, Cardiac, Vessel, dissection, investigate** |
| **Impact****Children will have an awareness of their immediate environment.**  | **Impact****Children will know the difference between things which are living, dead and never been living. They will explore different habitats and how living things are suited to their habitat.** | **Impact:** **Children can describe the main plant parts and their functions in the life cycle of a flowering plant.** | **Impact:** **Children can explain how sounds are made and travel, using their knowledge of vibrations, volume and pitch.** | **Impact:** **Children will have a better understanding of the world and universe around them and the planet we live on.** | **Impact****Children can identify the main structures and functions of the heart. They know the importance of blood and its purpose within the body.** |