******Science Spring 2**

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| **EYFS** | **Year 1/2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Prior Knowledge:**Build on identifying signs of Autumn and Winter as we move into Spring.  | **Prior Knowledge:** Children can name leaves and flowers and know these grow in soil.  | **Prior Knowledge**Plants in Year 1. Describe the basic structure of common flowering plants including trees.  | **Prior Knowledge**Materials and their properties in Year 1 and 2.  | **Prior Knowledge**To understand life processes of plants and animals.  | **Prior Knowledge**To know that living things need to show characteristics of living and can be classified.  |
| **Intent:** The children can identify features of other environments, beginning to compare these environments to their own and can express some signs of Spring.  | **Intent:** Children identify and name a variety of common wild and garden plants including deciduous and evergreen trees. They describe the basic structure of a variety of common flowering plants including trees. | **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:** Children will 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). They will also identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. | **Intent**To know that reproduction is when an animal or plant produces one or more individuals similar to itself: sexual reproduction, which requires two parents with male and female gametes (cells) and will produce offspring that is similar to but not identical to the parent and asexual reproduction, which will produce offspring that is identical to the parent and requires only one parent. | **Intent**To recognise that living things have changed over time and that fossils provide about living things that inhabited the Earth millions of years ago. |
| **Sequence of Learning**1. Can I describe what I see, hear, smell around me?2. Can I read and draw information on a simple map?3. Can I talk about changes in Spring?4. Can I continue to observe and notice the changes in the weather? 5. Can I explore the natural world around us investigating mini beasts?6. Can I explore the forces and movement used when I make kites, hot air balloons and vehicles? 7 Can I explore different environments? | **Sequence of Lessons:**1. Can I identify parts of a plant?
2. Can I identify plants from their leaves?
3. Can I consider conditions plants need to grow and create my own greenhouse?
4. Can I compare seeds and bulbs?
5. Can I plant seeds and give them the correct conditions to grow?
6. Can I investigate pine cones?
 | **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:**1. Can I understand what the particles in a solid look like?
2. Can I identify a substance as a liquid?
3. Can I identify a substance as a gas?
4. Can I identify the role of temperature in changing states of matter?
 | **Sequence of Lessons:**1.Can I state that animals can only produce offspring via sexual reproduction? 2.Can I compare the life cycles of a mammal, amphibian, insect and a bird?3.Can I state that plants can reproduce either sexually or asexually?4.Can I describe some methods for asexual reproduction in plants? | **Sequence of Lessons:**1. To give reasons for classifying plants based on specific characteristics.
2. To describe microorganisms.
3. To understand the importance in fossils.
4. To understand adaptation.
5. To investigate how polar bears have adapted to stay warm.
6. To identify how animals have adapted to suit their environment in different ways
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| **Key Vocabulary:** Plants, magnify, investigate, senses, smell, hear, touch, taste, see, notice, observe, fly, travel, force, movement, changes, same, different, seasons, spring, maps, excavate, archaeology, brush, uncover, natural, minibeasts. Climate, habitat, environment | **Key Vocabulary:**Seed, Bulb, Tuber, Germination, Growth, Stem, Leaf, Flower, Root, Annual, Perennial, water, light, space, conditions, greenhouse | **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:** Solid, liquid, gas, state changing, melting, freezing, boiling, evaporation, temperature, water cycle.  | **Key Vocabulary:** anther, bulb, cell, dispersed, dissect, embryo, fertilization, flower, flowering, function, gamete, germination, life cycle, mature, metamorphosis, ovary, ovule, petal, plant, pollen, pollination, reproduction, seed, stigma, structure | **Key Vocabulary:** offspring, adapted, survival, environment, evolution, vary, inheritance, characteristics, species, fossils |
| **Impact**The children will be able to notice and discuss signs of Spring in reference to their senses, as well as compare environments different to their own through presenting a 'weather report' based on an adventure in a new environment. | **Impact**Children successfully plant and grow flowers and vegetables from seeds and bulbs. They understand the conditions needed for plants to grow and be healthy.  | **Impact:** Children can describe the main plant parts and their functions in the life cycle of a flowering plant. | **Impact:** Children can explain how substances differ according to their states and identify the role of temperature in changing and reversing substances’ states of matter, making links to the water cycle. | **Impact:** To know that reproduction is when an animal or plant produces one or more individuals similar to itself | **Impact**Children will know that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago |