**Understanding the World – The Natural World (Science)**

**Nursery**

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| **Pupils will be taught to:** | **Stage 1**  **Traditional Tales** | **Stage 1**  **Festivals** | **Stage 2**  **Cold Weather** | **Stage 2**  **Processes** | **Stage 3**  **Changes** | **Stage 3**  **Seaside** |
| **Use all their senses in hands-on exploration of natural materials.**  **Explore collections of materials with similar and/or different properties.**  **Talk about what they see, using a wide vocabulary.**  **Plant seeds and care for growing plants.**  **Understand the key features of the life cycle of a plant and an animal.**  **Begin to understand the need to respect and care for the natural environment and all living things.**  **Explore how things work.**  **Explore and talk about different forces they can feel.**  **Talk about the differences between materials and changes they notice.** | **Three Little Pigs**  \*Talk about the properties of materials when building houses for the Three Little Pigs. | **Harvest/Halloween**  \*Cut up a range of fruit and vegetables and investigate what is inside. Observe over several days as the items start to decay. | **Freezing and melting**  \* Challenge – Elsa and her friends are trapped in ice. How can we help them escape? | **Pancakes**  \* Make and cook some pancakes. Taste different toppings and record what is our favourite. | **Planting**  \* Explore a range of seeds and beans.  \*Use stories and information books to find out more about what plants need to grow.  \* Plant some sunflower seeds in plastic bags and stick them to the window. Observe over the next few weeks. | **Sharks**  \*How do sharks float? Investigate items that sink or float. |
| **Goldilocks**  \* Explore similarities and differences in texture, e.g. soft, hard, rough, smooth materials. | **Fireworks**  \* Make some ‘fireworks’ by combining vinegar, bicarbonate of soda and food colouring. Talk about what happened. | **Hibernation**  \*Listen to stories and look at non-fiction books about animals that hibernate over the winter. Talk about why they hibernate. | **Science Week**  **Planting and Growing**  Find about how living things (humans, animals and plants) change over time. | **Growing**  \* Find about how living things (humans, animals and plants) change over time. | **Water**  \* Explore things that dissolve in water.  \*Make some jelly. |
| **Little Red Hen**  \* Challenge – how can we help the Little Red Hen turn corn into bread? | **Christmas**  \*Make ‘stained glass’ biscuits using crushed boiled sweets. | **Birds**  \*Learn about birds in winter and make bird feeders to hang in the school grounds. | **Easter**  \*Explore melting chocolate eggs.  \* Make chocolate nests. | **Caterpillars and Butterflies**  \* Learn about the lifecycle of butterflies by observing caterpillars transform into chrysalis and then butterfly.  \* Record observations by taking photographs, drawing/painting and talking about what has happened.  **Chicks**  Observing egg hatching | **Sunny Days**  \*Investigate shadows outdoors on a sunny day. |
| Identify sign of autumn in the local area. Make collections of leaves and seeds. Use technology and non-fiction books to find out more about the season. Record observations through drawing/painting/collage/taking photographs. | | Identify signs of winter in the local area. Uses senses to explore ice and snow. Use technology and non-fiction books to find out more about the season. Record observations through drawing/painting/collage/taking photographs. | | Identify signs of spring (then summer) in the local area. Plant seeds and beans in the garden. Use technology and non-fiction books to find out more about the season. Record observations through drawing/painting/collage/taking photographs. | |

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| **Curriculum Intent:**  The pupils will:   * Show care and concern for living things and the environment. * Respond to experiences and explorations of why things happen and how things work in the natural world. * Look closely at similarities, differences, patterns and change in their own environment and that of others. * Continue to widen their knowledge through books, rhymes, technologies and exploratory experiences. | |
| **Skills:**  Observation  Comment on what they see  Use senses to explore.  Record observations and communicate them orally, in drawings and using technology (photographs/videos)  Make simple comparisons.  Group items.  Carry out a simple test  Use books and technology to find out more about a subject  **Knowledge:**  The pupils will know:  How to recognise similarities, differences, patterns and change in the natural world.  How to find more information about a subject.  That they can uses their sense to explore  That materials have different properties.  That things can be changed by using processes such as freezing and heating.  That living things change over time.  What plants need to survive. | **Continuous provision:**  **Giant African land snail** - use information books and technology to find out what the snail needs to survive, refresh water and feed daily, brush shell with toothbrushes once a week, make observations of the snail and record using photographs, by drawing/ painting or by talking about what they have observed.  **Fiction and non-fiction books** – support further understanding of a theme.  **Allotment** – planting seeds and beans, watering them, observing plants as they grow and change, harvesting and eating vegetables.  **Exploration equipment** – binoculars, magnifying glasses, test tubes, pipettes, beakers, bug catchers, weather equipment (windmills/streamers) |
| **Key Vocabulary:**  Traditional Tales – hard, soft, strong, weak, rough, smooth, grind, flour, yeast, bake  Festivals – seeds, decay, vinegar, bicarbonate of soda, explode, crush, heat, melt  Cold Weather – freeze, frozen, melt, hibernate  Processes – heat, cool, mix, record, magnetic  Changes – plant, shoot, root, caterpillar, cocoon, chrysalis, emerge, butterfly  Seaside – float, sink, dissolve, shadow |