


Dereham Church Infant and Nursery School- Science

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|  | Year group: Nursery | Area/topic: Living things & their habitats, Seasonal changes |
| | <p><i>(Objectives from NC/ELG/Development matters)</i></p> <ul style="list-style-type: none"> *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. *Begin to understand the need to respect and care for the natural environment and all living things. | |

| Prior learning | Future learning |
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| <p>*Explore natural materials, indoors and outside. (Birth to three)</p> | <p>*Explore the natural world around them. (Reception)</p> <p>*Describe what they see, hear and feel while outside. (Reception)</p> <p>*Recognise some environments that are different to the one in which they live. (Reception)</p> |
| Working scientifically & encouraging scientific enquiry | |
| <p>Classification & identification</p> <ul style="list-style-type: none"> *Drawing and sorting natural objects they find. *Grouping together natural objects that are similar. <p>Observation</p> <ul style="list-style-type: none"> *Look for patterns on the natural objects they find. *Drawing natural objects found. *Using natural objects to make pictures and patterns. *Using senses to discuss things seen on a walk and weather. <p>Comparative testing</p> <ul style="list-style-type: none"> *Explore weather and seasons outside whilst completing a simple experiment. | |

What pupils need to know or do to be secure

| Key knowledge and skills | Possible evidence |
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| <p>*With support, children will communicate what they can see happening to the weather e.g. encourage children to comment and discuss when it is raining outside.</p> <p>*Children will begin to recognise how the weather affects them e.g. rain makes their clothes wet.</p> <p>*Begin to understand the need for different items of clothing dependent on the weather e.g. children need to wear wellies if it is raining or a sun hat in summer.</p> <p>*With support, recognise how things change outside when the weather changes e.g. when it rains, the leaves or grass become wet</p> <p>*With support, recognise how the weather affects animals. E.g. When it rains, do we see as many animals in the outdoor area? Do the animals hide from the rain?</p> <p>*Children will be taught to notice how nature is changing and growing as the weather and seasons change.</p> <p>*Children will be encouraged to discuss the weather, use suitable vocabulary to describe the weather.</p> <p>*Recognise that coats are no longer needed and jumpers can be removed if the weather is hot.</p> <p>*Children will explore and investigate things outside whilst beginning to 'have a go' at using a magnifying glass. Children may not use these correctly but will be introduced to the equipment.</p> | <p>*Children can share what they notice in weather changes.</p> <p>*Children can verbally discuss natural objects and use their senses.</p> <p>*Children will be actively learning through exploration and will keep trying even if they encounter difficulties.</p> <p>*Children will be seen to explore the surrounding natural environment and objects found there.</p> <p>*Children will begin to discuss similarities between natural objects and will be able to sort and group objects.</p> <p>*Children will be able to record observations of natural objects and weather through drawing.</p> <p>*Children will be able to discuss and record some patterns found on natural objects.</p> <p>*With support, recognise that things in the natural environment should not be damaged.</p> <p>*Children will begin to show care for things they encounter in the natural environment.</p> |
| <p>Key vocabulary</p> | |
| <p>Natural, plant, animal, leaves, seeds, conkers, acorns, twigs, bark, shells, feathers, pebbles, stones, same, different, pattern, weather, rain, sun, cloud, rainbow, snow, ice, frozen, freeze, frost, wind, hot, cold, wet, dry, planet, earth, moon, star</p> | |

| Common misconceptions | Books linking to this area |
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| <ul style="list-style-type: none"> *It only snows at Christmas. *It is always hot in summer. *When the sun shines, it means it is hot. *Shells are only found at the beach. *Feathers only come from dead birds. *Children may confuse a magnifying glass with a mirror. | <p>Traditional stories and nursery rhymes</p> <ul style="list-style-type: none"> *Rain, Rain Go Away. *Rain on the Green Grass. *It's Raining, It's Pouring. *I Hear Thunder. *Incy Wincy spider. <p>Other texts:</p> <ul style="list-style-type: none"> *Percy the Park Keeper by Nick Butterworth *We're going on a leaf hunt by Steve Metzger *Together with you by Patricia Toht *The rhythm of the rain by Grahame Baker Smith *Puddle by Hyeworth Yum *Rain by Sam Usher |
| Memorable first hand experiences | Opportunities for communication |
| <ul style="list-style-type: none"> *Children outside during different weather such as rain and wind to experience with their senses. *Children outside jumping in puddles. *Children feeling and observing natural materials such as acorns, conkers, pinecones, bark, shells, leaves etc. *Children to meet a real tree surgeon/farmer/gardener. *A walk outside of school to discover natural materials. *Watching a weather report. *Using magnifying glasses to observe. Children may not use these correctly but will be introduced to the equipment. | <ul style="list-style-type: none"> *Whilst children are outside exploring natural materials they find, adults to encourage children to discuss their senses with these. *Adults to encourage children to talk about where objects might come from e.g. whether they are part of a plant or animal. *Encourage children to discuss any patterns they notice on the natural materials. *Encourage children to ask questions about the surrounding natural environment and the natural materials in the classroom. |

DCINS Reasonable adjustments for pupils with SEND

Communication and Interaction

- *Visual aids, pictures of equipment with words labelled, word mats with pictures for key words in that lesson.
- *Freedom to explore scientific equipment and investigate in own way.
- *Hands on experiences to encourage communication and interaction with others.
- *Pre teaching any new vocabulary.

Cognition and Learning

- *Opportunity for lots of hands on exploration and verbally sharing thoughts and ideas.
- *Freedom to explore scientific equipment and processes.
- *Pre teaching new vocabulary or concepts.
- *Activities adapted if needed for safety and ease.
- *Visual aids, pictures of equipment, mats with key words and pictures
- *Learning recorded through photos and adult quotes, children not expected to write for recording their understanding.
- *Using working walls to aid learning and remind of previous learning.

Social, Emotional and Mental health

- *Awareness of individual needs, any potential triggers within the curriculum and the child's background.*
- *Pre prepare children for any activity they could find triggering or difficult in some way.*
- *Practical activities or experiments to be completed within a smaller group or 1:1 if needed.*
- *If the class are sharing their learning within a large group, take the child in a smaller focus group if they struggle with social situations.*
- *Adjustments made where needed to suit individual.*

Sensory and Physical

- *Adult support with any practical activities.*
- *Awareness of the individual's likes or dislikes and their own reactions to sensory activities.*
- *If a child enjoys sensory activities, then plan for this wherever possible within the lesson.*