


Dereham Church Infant and Nursery School- Science

	Year group: Reception	Area/topic: Seasonal changes
	<p><i>(Objectives from NC/ELG/Development matters)</i></p> <ul style="list-style-type: none"> *Explore the natural world around them. *Describe what they see, hear and feel whilst outside. *Understand the effect of changing seasons on the natural world around them. 	

Prior learning	Future learning
<ul style="list-style-type: none"> *Understand the key features of the life cycle of a plant and an animal. (Nursery - Plants & Animals, excluding humans) *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. 	<ul style="list-style-type: none"> *Observe changes across the four seasons. (Year 1) *Observe and describe weather associated with the seasons and how day length varies. (Year 1)

Working scientifically & encouraging scientific enquiry
<p>Observation over time</p> <ul style="list-style-type: none"> *Using chalk to draw around puddles and observe the size of puddles as well as how these change over time. *Observing and recording weather changes through seasons by drawing or using iPads to take photos. *Using scarves or pinwheels to explore the strength and direction of wind. *Going on seasonal walks to observe key features of the seasons. <p>Research using secondary sources</p> <ul style="list-style-type: none"> *Looking at photographs of different seasons and types of weather. *Sharing books about different seasons and types of weather.

What pupils need to know or do to be secure

Key knowledge and skills

Possible evidence

Children will be taught to:

**Observe nature within the classroom in seasonal trays or tuft spot. During Autumn children may have conkers, leaves, twigs, pine cones, pumpkins to observe within their class.*

**Communicate what they can see happening to the trees in the school grounds throughout the year In Autumn/Winter adults will encourage children to recognise and discuss how the leaves are changing colour and are falling from the trees*

**Talk about and describe the tree leaves found on the ground, how the leaves feel and look at their size, colour and shape.*

**Discuss what they notice happens to the ground when it rains.*

**Use the correct vocabulary to describe the weather. Children will recognise if it is sunny or rainy. Children will begin to understand that if it is cold then they will need to wear a coat and if it is raining then they will need wellie boots.*

**Communicate what they can see happening to the trees in the school grounds throughout the year In Spring adults will encourage children to recognise and discuss how the leaves are growing on trees, blossom is growing and flowers are beginning to grow.*

**Recognise changes in weather including temperature. Children will be taught to understand the type of clothes or shoes they might need to wear during each season and to understand why.*

**Discuss how different types of weather makes them feel.*

**Recognise and discuss the animals and plants that they find in different seasons.*

**Children will be able to verbally explain the weather associated with each season.*

**Children will be able to recognise the clothes they wear during each season and how these change to suit the weather.*

Key vocabulary

Spring, summer, autumn, winter, seasons, sunny, cloudy, hot, warm, cold, shower, raining, storm, thunder, lightning, hail, sleet, snow, snowflake, icy, frost, puddles, windy, rainbow, wet, dry, sun, moon, stars, animals, hibernate, plants, flowers.

Common misconceptions

- *It always snows in winter.
- *It is always hot in the summer.
- *All babies and young animals are born in spring.
- *Plants only have flowers in the spring and summer.
- *Animals sleep during winter.
- *It rains to help the plants grow.
- *When it is hotter, it is because the Sun is closer.
- *If the sun is out then it will be hot.
- *God controls the weather.

Books linking to this area

Traditional stories and nursery rhymes

- *Rain, Rain Go Away.
- *Rain on the Green Grass.
- *It's Raining, It's Pouring.
- *I Hear Thunder.
- *Incy Wincy spider.

Other texts:

- *Seasons by Anna Pang
- * Autumn is Here by Heidi Pross Gray
- *Spring is Here by Will Hillenbrand
- *One Springy Day by Nick Butterworth
- *WOW! It's Night-time by Tim Hopgood
- *Tree - Seasons Come, Seasons Go by Britta Teckentup
- *The Snowy Day by Ezra Jack Keats
- *The Snowman by Raymond Briggs
- *Stickman by Julia Donaldson

Memorable first hand experiences

- *Children outside during different weather such as rain and wind to experience with their senses.

Opportunities for communication

- *Whilst children are outside exploring natural materials they find, children to discuss their senses.

- *Children outside jumping in puddles, playing in snow.
- *Drawing around puddles with chalk.
- *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.
- *Class role play to be set up as a science area for meteorologists or weather presenters.
- *Using scarves or pinwheels to explore the strength and direction of wind.
- *Catching snowflakes on frozen black paper and using a magnifying glass or app on a tablet to observe.
- *Making art work with seasonal found objects/materials.
- *Visit a river or pond to look for birds and their young in spring.
- *Visit a farm to see young animals in spring.
- *Children to make shelters outside to keep themselves dry in rain or in the shade when it is sunny.

- *Children to use and communicate their senses during a local walk.
- *Children to talk about where objects might come from e.g. whether they are part of a plant or animal.
- *Children to discuss any patterns they notice on natural materials and objects.
- *Encourage children to ask questions about the surrounding natural environment and the natural materials in the classroom.
- *Through the use of Explorify.

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.*