



## SUBJECT MEDIUM TERM PLANNING - SCIENCE

<b>Year Group: 1</b>	<b>TERM: Autumn 1</b>	<b>Theme: Seasonal changes/everyday materials</b>
<b>National Curriculum:</b> <b>Seasonal changes</b> <ul style="list-style-type: none"> <li>Observe changes across the four seasons – Autumn</li> <li>Observe and describe weather associated with the seasons and how day length varies.</li> </ul> <b>Materials</b> <ul style="list-style-type: none"> <li>distinguish between an object and the material from which it is made</li> </ul>		
<b>Context:</b> - Children will observe autumn changes in and around the local area. Children will be identify weather that is typically associated with Autumn The children will be able to explore and identify different types of material Children will apply their material knowledge to carry out an investigation.	<b>Concepts:</b> Seasonal changes – with a focus on Autumn Everyday materials	<b>Vocabulary:</b> seasons, winter, summer, spring, autumn, weather  materials - Wood, plastic, metal, glass water, rock, paper, fabric, foil  hard/soft; stretchy/stiff; rough/smooth; bendy/not bendy; waterproof/not waterproof  Working scientifically – investigate Identifying, classifying and grouping, simple tests
<b>Prior Knowledge:</b> <b>Seasonal changes</b> <ul style="list-style-type: none"> <li>Explore the natural world around them. (EYFS – Seasonal changes)</li> <li>Describe what they see, hear and feel whilst outside. (EYFS – Seasonal changes)</li> <li>Understand the effect of changing seasons on the natural world around them. (EYFS – Seasonal changes)</li> </ul>	<b>Future Knowledge:</b> <b>Seasonal changes</b> Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Y3 - Light) <ul style="list-style-type: none"> <li>Use the idea of the Earth’s rotation to explain day and night and the apparent movement of the Sun across the sky. (Y5 - Earth and space)</li> </ul>	

**Everyday materials**

Use all their senses in hands-on exploration of natural materials. (Nursery - Materials, including changing materials)

- Explore collections of materials with similar and/or different properties. (Nursery - Materials, including changing materials)
- Talk about the differences between materials and changes they notice. (Nursery - Materials, including changing materials)

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Children will know that objects are made up of different materials and will be able to provide examples of different properties

**Everyday materials**

Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 - Uses of everyday materials)

**End points /by the end of this unit pupils will...**

- Children will be able to identify any seasonal changes for Autumn
- Children will be able to identify the difference between an object and materials.
- Children will be able to name some different materials.
- Children will be able to identify the materials of different objects.

## Lesson Number 1

### Key learning:

recognise changes across the seasons.

Context: Autumn

### Concepts:

Seasonal changes

### Lesson structure: Introduction, direct teaching, activities, key questions

**Engage** – What do we already know about seasons? – Generate a class mind map of all what children know about the seasons based on prior knowledge (this will allow you to identify misconceptions within the lesson)

### Success Criteria:

This should what the children should be able to do by the end of the lesson

I can name the 4 seasons.

I can name the months of the year that occur in each season.

I can identify changes in weather and temperature

### Working scientifically:

Identifying and classifying



### Suggested resources:

Flip chart

Seasonal pictures

**Concept map at the beginning of the topic. This will assess how much prior learning has been retained. What do the children already know about the topic?**

**Introduce** the 4 seasons and discuss the months of the year that fall into them – show children an image of a tree that has changed over the different seasons.

Show children the bbc bitesize video that explains what a season is

<https://www.bbc.co.uk/bitesize/topics/zkvv4wx/articles/zcx3gk7>



Show children pictures of autumn, can they identify any changes that have occurred.

**Independent task:** Children to have different seasonal pictures, in groups children to identify which pictures relate to autumn

**Deepening-** Show children a weather forecast – what do they notice about the temperature, day light hour? (link this to maths moments each day)

**Reflection** – Re visit mind map from the beginning of lesson – has knowledge been progressed, address misconceptions

### Key questions:

Can children name the 4 seasons?

Can the name the months in each season?

Can the children already tell you about any seasonal changes? Can they explain why it has changed?

**Challenge:** Why do you think these changes have happened?

**Adaptive teaching for SEND:**

**Make visual and group work. Nothing to be recorded in books**

**Vocabulary:**

Seasons, autumn, weather (wind, rain)

**Lesson Number 2 (half a day trip)**

**Trip to Ecclesal woods**

**Key learning:**

observe changes across the seasons

Content: Local area

**Concepts:**

Observe seasonal changes

**Lesson structure: Introduction, direct teaching, activities, key questions**

**Engage:** Recap seasonal changes

Make predictions of what the children might see during their visit to the woods.

**Success Criteria:**

This should what the children should be able to do by the end of the lesson

- Children will be able to identify 3 different seasonal changes that occur with reference to the local area.

**Working Scientifically:**

identifying and classifying using their observations and ideas to suggest answers to questions



**Suggested resources:**

Year group trip to Ecclesall woods

Risk assessment

Ipad

Post it notes to record childrens comments

Visit the woods and look for seasonal changes – If things haven't changed then why Children to have visuals to support them with what seasonal changes they are looking for (brown/orange leaves ect)

Children to take pictures of what changes they have found. If leaves are on the floor, ring back and children to create a small world based on the seasonal changes they have found

**Reflection:** Feedback when returned to school, what did they see? If leaves haven't changed colour, why haven't they? Can they predict what will happen in winter?

**Challenge: Can children identify things that haven't changed?**

**Adaptive teaching for SEND:**

SEND children who require it to have 1:1 support.

**Vocabulary:**

**Lesson Number 3**

**Key learning:**  
 identify what objects are made of and group them in different ways depending on their properties.

**Concepts:**  
 Everyday materials

**Lesson structure: Introduction, direct teaching, activities, key questions**

**Engage** – show children different types of material and ask them what they think. This can be on the board or in a circle with physical materials.

**Introduce**

Explain that all objects are made up of materials.

**Success Criteria:**  
 This should what the children should be able to do by the end of the lesson

**Suggested resources:**  
 Different types of materials  
 Wood, plastic, metal, iron, cotton wool, paper, cotton, silk, rock

Can the children name any different materials?

Give examples of different materials

Explain that materials have different properties.

**Working scientifically:**  
 identifying and classifying

Group labels of properties

Provide children with different objects, can the name what the materials are. Can they group the materials into different groups such as hard/soft, bendy/not bendy, waterproof/ not waterproof ect.



Flipchart

The can be recorded via photos and statements.

Ipad

This can then be kept in continuous provision to enhance their learning with key words.

Post it notes to record childrens comments

**Challenge: Ask children where they have seen the material before and why do they think it was used.**

**Adaptive teaching for SEND:**

**Word mats**

**Visuals**

**Pre learning**

**Vocabulary:**

materials - Wood, plastic, metal, iron, cotton wool, paper, cotton, silk, rock

**Lesson Number**

**Key learning:** explore the properties of different materials

Outside learning – Forest school

Link with The Gruffalo – English book

**Concepts:**  
Everyday materials

**Lesson structure:** Introduction, direct teaching, activities, key questions

**Investigation:** Using their material knowledge create an outside home for the Gruffalo.

Engage: Recap what an object, material and properties are. Show some pictures of different materials to initiate conversation

**Introduction.**

What do we want our house to be? (waterproof, camouflaged so he can sneak up on creatures ect)

**Success Criteria:**  
This should what the children should be able to do by the end of the lesson

Working scientifically:  
performing simple tests



**Suggested resources:**  
Different types of materials  
Wood, plastic, metal, iron, cotton wool, paper, cotton, silk, rock

Have different materials on the table - Children to explore different materials and use key vocabulary to describe the properties of different materials.

In groups, children to use their knowledge to create a waterproof shelter for the Gruffalo. Children to label their design with the materials they have used and why they have used them. This is to be lead by the children. If they want to use unsuitable material let them and see if they can evaluate later why it wasn't suitable

Children then to make their structure in the forest school.

**Reflection** – Evaluate each others house based on the materials suitability. What would you do differently.

Leave houses in the forest school and observe over time whether they are suitable for the weather.

**Key questions:** Why have you used that material? What properties does gthat material have that you think would make it suitable?

**Challenge:**

**Adaptive teaching for SEND:**

**Word mat of materials and the properites it has.**

**Vocabulary:**

