# KS1: MEDIUM TERM PLANNER
## Weather (Seasons) Y1

Pupils should be taught to:

- observe changes across the 4 seasons
- observe and describe weather associated with the seasons and how day length varies

The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done using first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.

'Working and thinking scientifically' is described separately at the beginning of the programme of study but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.
Pupils should read, spell, and pronounce scientific vocabulary correctly.

During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes, and skills through the teaching of the programme of study content:

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions

| **Prior Learning:** | Future learning: |
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| • Understand the key features of the life cycle of a plant and an animal. (Nursery – Plants & Animals, excluding humans)<br>• Explore the natural world around them. (Reception – Seasonal changes)<br>• Describe what they see, hear and feel whilst outside. (Reception – Seasonal changes) | • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Y3 - Light)<br>• 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)<br>• The seasons and the Earth's tilt, day length at different times of year, in different hemispheres. (KS3) |

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| • Understand the effect of changing seasons on the natural world around them. (Reception – Seasonal changes) | |

| **Key Questions** (*show how content and concepts link*) **Differentiated** Learning Objectives | **Teaching and learning activities** *(linked directly to objectives)* | **Resources** (*to help pupils reach the learning objectives)* | **Written and non - written outcomes** (*assessment including homework's)* |
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| **1) What do we know about weather?**<br>SCIENCE CAPITAL: *How does this lesson connect with children in my class? What is the weather like outside?*<br>Science Working scientifically Skills:<br>  <br>Science Enquiry Type<br>**Observation over time**<br>*In the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again.*<br>*The weather also changes with the seasons. In the UK, it is usually colder and rainier in winter, and hotter and dryer in the summer. The change in* | **Science reasoning task: explorify:** Wonderful weather - Explorify<br><br>**Activity 1:** PowerPoint: what are the different teddies dressed for which season? How do you know?<br><br>**Activity 2:** Show different weather symbols- act out – also on IWB select which clothing is appropriate for which weather.<br><br>**Activity 3:** As a class plan – observation overtime – recording morning and afternoon weather.<br><br>**Misconception:**<br>Some children may think:<br>• it always snows in winter<br>• it is always sunny in the summer<br>• there are only flowers in spring and summer<br>• it rains most in the winter. | **Activity 1:** PowerPoint- teddy in different clothing dress up.<br><br>**Activity 2:** weather symbols<br><br>**Activity 3-** planning template. | **Assessment:** can pupils identify different seasons and months associated with them.<br><br>**Homework:** weekend weather diary. |

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| *weather causes many other changes. Some examples are: numbers of minibeasts found outside; seed and plant growth; leaves on trees; and type of clothes worn by people.* | | | |
| 2) **LO: What is the weather like outside?**<br><br>SCIENCE CAPITAL: *How does this lesson connect with children in my class? What clothes would you wear for different seasons?*<br>Science Working scientifically Skills:<br>  <br>Science Enquiry Type<br>**Classify**<br>*Animals vary in many ways In the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again.*<br>*The weather also changes with the seasons. In the UK, it is usually colder and rainier in winter, and hotter and dryer in the* | **Science reasoning task: explorify:** Gone out wearing the wrong coat? - Explorify<br><br>**Activity 1:** Go outside to observe the weather: Ask the chn what they observed about the weather when they went outside. Tell them to turn to their group or partner and consider these questions: What was I expecting today when I went to watch the weather? Was I surprised by it? What season are we in? What is the weather normally like at this time of year?<br><br>**Activity 2:** classify in their books and write down similarities and differences.<br><br>**Activity 3:** Create seasonal collages as a team.<br><br>**Misconception:**<br>Some children may think:<br>• it always snows in winter<br>• it is always sunny in the summer<br>• there are only flowers in spring and summer<br>• it rains most in the winter.<br>• | **Activity 1:** Outside area- question stems for discussion.<br><br>**Activity 2: classify sheets**<br>http://www.bbc.co.uk/education/clips/zp4gcdm - 2.5 mins of seasons changing in the country. Music, no speaking;<br>https://www.youtube.com/watch?v=GRxofEmo3HA - Vivaldi's Four Seasons with images. 42 min long.<br><br>**Activity 3:** range art resources to create collages. | **Assessment:** Are pupils able to explain the difference between different seasons and appropriate clothing. |

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| *summer. The change in weather causes many other changes. Some examples are: numbers of minibeasts found outside; seed and plant growth; leaves on trees; and type of clothes worn by people.)* | | | |
| 3) LO: What is a shadow?<br><br>SCIENCE CAPITAL: *How does this lesson connect with children in my class? Where do you find shadows? Which shadows do you notice?*<br>Science Working scientifically Skills:<br>  <br>Science Enquiry Type<br>**Research/ observation**<br>*In the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again.*<br>*The weather also changes with the seasons. In the UK, it is usually colder and rainier in winter, and hotter and dryer in the* | **Science reasoning task: explorify:** Spring flowers - Explorify<br><br>**Activity 1:** Go outside and try to catch shadows and draw around the objects that create shadows.<br><br>**Activity 2:** PowerPoint to discuss how shadows are formed.<br><br>**Activity 3:** Pupils to create shadow puppets.<br><br>**Misconception:**<br>Some children may think:<br>• it always snows in winter<br>• it is always sunny in the summer<br>• there are only flowers in spring and summer<br>• it rains most in the winter. | **Activity 1:** Outside playground, chalk and objects creating shadows to draw around.<br><br>**Activity 2:** PowerPoint<br><br>**Activity 3:** Paper and lollypop sticks to create shadow puppets. | **Assessment:** Are ch able to identify the different seasons and length of daylight causing shadows.<br><br>**Homework:** what time of day is the shadow bigger o smaller? |

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| *summer. The change in weather causes many other changes. Some examples are: numbers of minibeasts found outside; seed and plant growth; leaves on trees; and type of clothes worn by people.* | | | |
| 4) LO: How much rain is there in spring?<br><br>SCIENCE CAPITAL: *How does this lesson connect with children in my class? Which is your favourite season and why?*<br>Science Working scientifically Skills:<br>  <br>Science Enquiry Type<br>**Observation over time**<br>*In the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again.*<br>*The weather also changes with the seasons. In the UK, it is usually colder and rainier in winter, and* | **Science reasoning task: explorify:** What if there was only one season? - Explorify<br><br>**Activity 1:** PowerPoint go through- listen to music - What can you hear? What does it remind you of? How does it make you feel?<br><br>**Activity 2:** Creating a rain gauge<br><br>**Activity 3:** setting up observation overtime experiment – collecting data about the amount of rainfall in spring.<br><br>**Misconception:**<br>Some children may think:<br>• it always snows in winter<br>• it is always sunny in the summer<br>• there are only flowers in spring and summer<br>• it rains most in the winter.<br>• | **Activity 1:** PowerPoint 3 Hours of Gentle Night Rain, Rain Sounds for Sleeping - Beat insomnia, Relax, Study, Reduce Stress - YouTube<br>**Activity 2:** plastic bottle, measuring strip, stones<br><br>**Activity 3:** experiment sheet | **Assessment:** Able to identify which months and season in England it rains most.<br><br>**Homework:** write experience of being in the rain. |

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| *hotter and dryer in the summer. The change in weather causes many other changes. Some examples are numbers of minibeasts found outside; seed and plant growth; leaves on trees; and type of clothes worn by people.* | | | |
| 5) **What is the direction of the wind?**<br><br>SCIENCE CAPITAL: *How does this lesson connect with children in my class? Which animals do you notice in your garden in spring rather then in winter? Why?*<br>Science Working scientifically Skills:<br>  <br>Science Enquiry Type<br>**Research**<br>*In the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again.*<br>*The weather also changes with the seasons. In the UK, it is usually colder and* | **Science reasoning task: explorify: who are they?** Show picture of George and ask who, what, where, when.<br><br>**Activity 1:** PowerPoint go through what is wind- outside playground and observe the weather. Why would who/we need to know the direction of the wind? Discuss the different weathers and strength of wind- tornado/ hurricane etc.<br><br>**Activity 2:** create windsock following a set of instructions.<br><br>**Misconception:**<br>Some children may think:<br>• it always snows in winter<br>• it is always sunny in the summer<br>• there are only flowers in spring and summer<br>• it rains most in the winter. | **Activity 1:** Picture of G.M PowerPoint /outside observation<br><br>**Activity 2:** Paper, water bottle and instructions to create windsock. | **Assessment:** Are pupils able to create a windsock and use compass to identify direction of wind. |

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| *rainier in winter, and hotter and dryer in the summer. The change in weather causes many other changes. Some examples are: numbers of minibeasts found outside; seed and plant growth; leaves on trees; and type of clothes worn by people.* | | | |
| **6) How can we measure the temperature?**<br>SCIENCE CAPITAL: *How does this lesson connect with children in my class? What kinds of clothes do you wear on the beach in the summer?*<br>Science Working scientifically Skills:<br>  <br>Science Enquiry Type<br>**Research**<br>In the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again.<br>The weather also changes with the seasons. In the UK, it is usually colder and rainier in winter, and | **Science reasoning task: explorify:** Under glass - Explorify<br><br>**Activity 1: D**iscuss temperature and why it is important to measure temperature.<br><br>**Activity 2:** Pupils to go out in the playground and different places in school and record the temperature.<br><br>**Activity 3:** create temperature boxes.<br><br>**Misconception:**<br>Some children may think:<br>• it always snows in winter<br>• it is always sunny in the summer<br>• there are only flowers in spring and summer<br>• it rains most in the winter. | **Activity 1:** Different places to go and record temperature.<br><br>**Activity 2:** different areas of the school map to record temperatures.<br><br>**Activity 3:** create a temperature box and place in different places to record the temperature. | **Assessment:** Are pupils able to read temperature scales. |

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