Year 1 Physical Science: Seasonal Changes (Spring and Summer) Unit 4

Scientific Investigations:

- Observing Changes over Time
- Looking for Naturally- Occurring Patterns and Relationships
- Researching Using Secondary Sources

Scientists:

- Meteorologist - Weather forecaster, weather scientist. (Meteorologists collect and study data from the atmosphere and oceans to make weather forecasts and carry out research)
- https://nationalcareers.service.gov.uk/job-profiles/meteorologist

Scientific Skills Taught:

ASK
- To explore the world around them
- To ask their own questions
- To find answers from books, photographs, videos (secondary sources)

BREAKDOWN
- To carry out simple tests
- To use simple measurements
- To use simple equipment

CAPTURE
- To observe closely
- To compare using simple features
- To record what they notice in different ways
- To sort things using simple features
- To notice patterns and relationships
- To group things using simple features

DESCRIBE
- To explain what they found out
- To talk about what they have seen
- To use simple scientific language
- To know there are different ways to answer

Prior Learning:

- EYFS: Seasonal changes in the spring and summer, types of weather and staying safe in the sun, planting and growing seeds and what they need to grow and a typical life cycle, different types of animals and creatures we may see more of at this time of year e.g. butterflies, flies, bees; walks around school to look for seasonal changes e.g. plants beginning to grow, trees having buds and leaves on.
- Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes. (Early Learning Goal)

Curriculum	Learning Intention	Knowledge and Key Vocabulary

Making links to previous learning and discuss the model (if needed)	What do you already know about spring and summer pre assessment task?
	Recap autumn and winter season learning and apply questions to spring and summer seasons.
	What is weather?
	What is the weather like today?
	What Are Seasons?
	Can you name and describe the seasons?
		Knowledge:
		- To know that weather is the way it feels outside such as:
		  - Temperature (hot or cold)
		  - Windy
		  - Raining
		  - Sunny
		  - Hailing
		  - Snowing
		  - Sleeting

		- Foggy - Cloudy - To know that the seasons are caused by the tilt of the Earth's axis. - To know that the weather changes regularly and tends to be different during different seasons. - To know it is usually colder in winter and warmer in summer. - To know that days are longer (in time) in the summer and shorter in the winter. **Vocabulary:** - weather, season, spring, summer, autumn, winter, temperature, thermometer.
Knowledge and skills through investigations Pupils should be taught to: - observe changes across the four seasons - observe and describe weather associated with the seasons and how day length varies. Notes and guidance (non-statutory) - Pupils should observe and talk about changes in the weather and the seasons. Note: Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses. Pupils might work scientifically by: - making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.	What do you expect to see if it is spring? To observe and describe weather associated with the seasons by observing the weather in spring. To gather and record data to help in answering questions by recording the weather, temperature, rainfall, and wind direction in spring. What changes do we expect as spring changes to summer? To observe and describe how day length varies in the context of spring to summer. To observe changes across the four seasons by looking at how trees and the clothes that we wear change from spring to summer. What do you expect to see if it is summer? To observe and describe weather associated with the seasons by observing and recording the weather in summer. To gather and record data to help in answering questions by recording the weather, temperature, rainfall, and wind direction in summer. How can we measure the weather? To observe and describe weather associated with the seasons, by measuring rainfall with a rain gauge they have made.	**Knowledge:** - To know there are 4 seasons of spring, summer, autumn and winter. - To know that some trees start to blossom and change colour during spring. (link to new life) - To know that some trees and flowers are in full bloom during summer. **Vocabulary:** - Weather (sunny, rainy, windy, snowy etc.) - Seasons (winter, summer, spring, autumn) - Sun, sunrise, sunset, day length.

	To gather and record data to help in answering questions, by measuring rainfall with a rain gauge they have made.	
Application and Assessment Activity	Evie is checking when it goes dark at night. On the 1st of January it was dark at 4 o'clock in the afternoon. On the 1st of February it was dark at 5.30 in the afternoon. What does Evie say is happening to the nights?  The nights are the same length The nights are getting longer The nights are getting shorter The nights are not changing https://www.educationquizzes.com/ks1/science/	

Thinking Deeper:

Watch your shadows

Work in pairs in the playground early on a sunny day. Each child should use chalk to draw a cross on the ground and then stand on the cross while their partner draws around their shadow, labelling it with the time and their name. Repeat several times during the day. Get the children to describe how their shadows have changed. They can use digital cameras to record their evidence. Repeat this throughout each of the 4 seasons, then get the children to discuss what is the same, what is different?

Links to other subjects:

- Subject Specific links –
  - English: new vocabulary, explaining their work, describing images and processes,
  - Maths: sorting activities, tally charts, graphs and comparing lengths of days
  - ICT: learning from activities and videos on IWB
  - Geography: weather, and how it impacts people and animals
  - Art & DT: seasons wheel

- Personal Development – Children will take more responsibility for presenting and discussing evidence of their learning, for example using digital cameras, videos, drawings and charts and diagrams as well as the more formal requirement to write.

- SMSC –
  - How to stay safe - Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses.
  - Learning how to stay warm / cool.

• Cultural Capital – to understand that some countries have different weather during spring and summer. -
• Careers – Scientist, meteorologist, astronomist, physicist, weather reader, journalism, radio broadcaster,
• British Values –freedom of speech and allowing everyone to have their say communicating observations
• Equality – promotion of both men and women as scientists