

	Required prior knowledge	Knowledge to be explicitly taught	How knowledge will be built upon
Substantive knowledge	<p>Recognise differences between two seasons: spring and winter (EYFS)</p> <p>Types of weather include sunny, rainy, and windy (EYFS)</p> <p>Some trees keep their leaves in winter (EYFS)</p> <p>Some trees lose their leaves in winter (EYFS)</p> <p>We live on the Earth (EYFS)</p>	<ul style="list-style-type: none"> • There are four seasons: spring, summer, autumn and winter • The weather changes gradually as we move from season to season • The weather can change rapidly in one day (e.g. sunny morning and rainy afternoon) • Recognise differences between four seasons in terms of living things (trees lose leaves; flowers drop and we see different animals, such as butterflies in the summer) • Daytime is when the Earth is facing the Sun; night time is when the Earth is facing away from the Sun • In the summer that there are more hours of daylight and in winter there are fewer hours of daylight. • In the summer, we face the sun for more of the day and so it is lighter/darker when we travel to school in summer/winter • The Moon is more visible at night. 	<p>Geography: Observing weather patterns (Year 2)</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Year 3 - Light)</p>
Disciplinary knowledge	<p>Representing their experiences in play</p> <p>Using senses to explore the world around them</p> <p>Engaging in open-ended activity</p> <p>Paying attention to details (YR)</p>	<ul style="list-style-type: none"> • Use information from images of four seasons to identify and record differences in wildlife and weather in four seasons. • Scientists look for patterns in the world around them • Gather information from texts/books/images • Record numerical or descriptive observations in a table • Observing closely, using simple equipment 	<p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers (Year 3)</p>

Culture and Diversity - which helps pupils to develop enquiring minds about the wider world –

- Different seasons in different parts of the world- Southern hemisphere/Proximity to the Equator
- Scientists' values and beliefs are influenced by the larger culture in which they live. Such personal views can, in turn, influence the questions they choose to pursue and how they investigate those questions.
- Scientific activities are social activities, so scientific culture is the product of humans' or particular groups of humans' activities. The thinking patterns, values, behavioural norms and traditions of science formed in its history reflect its cultural connotation.
- PSTT – 'A Scientist Just Like Me' - <https://pstt.org.uk/resources/curriculum-materials/ASJLM> Case studies of different scientists from diverse and under-represented backgrounds.

• **Environment and Community** - which helps to instil in our pupils a respect for our environment and for our local and wider British Science Week

- Outside speakers
- Eco School – Global warming, reducing use of energy and resources.
- School community reminders
- RESPECT characters reminders
- Children to appreciate our communities values, similarities and our unique qualities that make us special.
- British Science Week

Creative arts and physical development - which helps our pupils to express themselves and excel as holistic learners.

- Create a weather station in outside challenge area - links to DT curriculum
- Forest School
- Scientists have to use their imagination to come up with explanations, theories and predictions.
- Scientists have to use their prior and new knowledge to create links

Learning to learn - which helps pupils to concentrate and focus and build resilience as learners –

- Observation/Gathering information from secondary sources
- Observation of weather during the year /daylight length
- Respect characters model learning behaviours to develop resilience and perseverance.
- Respect characters model excellence in attitudes to learning.