



Subject: Science Topic: Let's go! Year group: 1 Term: Autumn 1 & 2 Seasonal change

National Curriculum Objectives

observe changes across the 4 seasons

observe and describe weather associated with the seasons and how day length varies

Prior Learning In EYFS:

Begin to measure time with timers and calendar's

Know about similarities and differences

Make observations and drawings

Talks about seasons and states of matter

Plays outside in all weathers

Days of the week, months of the year

Future Learning

In Year two:

Observe and describe changes across the 4 seasons

Key Questions

How can we describe the weather?

How can we measure the weather?

What are the seasons?

How are the seasons different?

Does day length change?

How do we stay safe in the sun and dark?

Substantive Knowledge (key facts and concepts)

-Know that we have different weathers and what they are like:

Sunny – The sun is bright and the sky is clear, **Cloudy** – Lots of clouds in the sky, **Rainy** – Water falls from the clouds, **Stormy** – Rain, thunder, and lightning together **Snowy** – Snowflakes fall and everything turns white, **Windy** – The air is moving fast, **Foggy** – It's hard to see because of thick mist, **Sleet** – Rain mixed with tiny bits of ice. **Hail** – Little balls of ice fall from the sky

-To be able to compare weathers- Comparative language: Hot/cold, rain/dry, cool/warm, foggy/clear.

-To know that there are different types of light sources- Light sources: Natural light- sun, stars, lightening, fireflies. Man made light- bulbs, flames, torch, lights, iPhone, computers

-To know that day light hours change through the year and why. Day light Hours: In summer, our part of the Earth is leaning toward the sun, So the sun stays in the sky longer. That means more daylight hours. In winter, our part of the Earth is leaning away from the sun, so the sun goes away sooner. That means fewer daylight hours.

-To know that weather changes over time and each season has characteristics

-To know we have days, week, months, years and different ways of measuring time.

-To know what to wear in each season and how we keep ourselves safe

-Know that weather is different around the world

_know that the sun rises and falls for us, but it is always there. We just cant see it.

Disciplinary Knowledge (Working scientifically)

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

Sequence of lessons

1. How can we describe the weather?

Sticky Knowledge

Name the months of the year (EYFS)
 What are the 4 seasons (EYFS)
 What clothes do we tend to wear in winter?
 Hat, scarf, gloves, coat etc (EYFS)

Intent

- Can describe how they feel from direct weather experience in different conditions
- Can describe weather using comparative language hot/cold wet/dry sunny/cloudy.
- Knows weather conditions (rain, snow, frost)
- Can increasingly describe weather in detail

2. How can we measure the weather?

Sticky Knowledge

Name 3 weather conditions typically associated with winter. (Snow, rain, wind etc)
 What month comes after January?
 What clothes do we tend to wear in summer? (EYFS) Sun hats, shorts, t-shirts, sunglasses.

Intent

- Explore and set up experiment using the wind sock. Measure results over the next two weeks.
- Set up a daily weather board to record results
- Record results daily where possible so children can refer back for future lesson
- Discuss- do some seasons have more wind than others?

3. What are the seasons?

Sticky Knowledge

What do we use a wind sock for?
 Name weather conditions typically associated with summer.
 What season are in in now? Autumn

Intent

Recognise a day, week, month, season and year.
 Use a calendar to name months.
 Name and order the four seasons. (season wheel)

4. What are the seasons?

Sticky Knowledge

What is on a calendar? Months of the year.
 Describe this weather. Show a picture of a hot sunny day.
 What is a week? A period of 7 days.

Intent

Know the characteristic weather features of each season
 Know there are less hours of day light in the winter and more in the summer
 Links appropriate clothing to wear in each season
 Can recognise which season they are in.

5. How can we measure the weather? Wind sock results

Sticky Knowledge

Sing the days of the week song (EYFS)
 What are the months of the year (EYFS)
 Are the days longer in the summer or winter?
 Summer

Intent

Look at and interpret the results of the wind sock experiment.
 Create a pictogram showing the wind strength on each day.
 Interpret the results. What day was it the most/least windy?

6. How do we stay safe in different seasons?

Sticky Knowledge

What clothes do we wear in the winter? EYFS
 Describe this weather- show a picture of a rainy day
 What are the months of the year?

Intent

- Know the characteristics of each season
- Know there are less hours of day light in winter and more in summer.
- Know what clothing to wear in each season and how to keep ourselves safe. (Sun hats, sun cream, warm, waterproof, reflective clothing)

7. How can we measure the weather? Rain gauge experiment.

Sticky Knowledge

What is a wind sock?
What are the four seasons?
Does it only rain in one season or all four?

Intent

- Explore and set up experiment using the rain gauge (similar to wind sock). Measure results over the next two weeks.
- Set up a daily weather board to record results
- Record results daily where possible so children can refer back for future lesson
- Discuss what seasons have the most rain.

8. Do all countries have weather like ours?

Sticky Knowledge

What is a rain gauge?
What are the 7 days of the week? Song (EYFS)
What is the weather typically like in the winter?

Intent

- Know that weather changes over time and is different around the world
- Can see patterns in the weather e.g. warmer towards the equator, colder towards the poles etc. (use photos and webcams to see weathers in other countries)

9. How can we measure the weather? Rain gauge results.

Sticky Knowledge

What are the four seasons?
When do we typically wear woolly hats?
What do we wear when it is raining?

Intent

- Look at and interpret the results of the rain gauge experiment.
- Create a pictogram showing the rain gauge results on each day.
- Interpret the results- What day did it rain the most/least.

10. Where does light come from?

Sticky Knowledge

Does it get hotter or colder near the equator?
What is the weather like in the North pole?
What are the four seasons?

Intent

- Know that there are two types of light. Natural light sources and man-made light sources.
- Most man made light sources need electricity
- Know that light always comes from a light source. Not from the eyes

Substantive knowledge:

Natural light- sun, stars, lightning, fireflies etc
Man made light- bulbs, flames, torch, lights, iPhone, computers

11. What happens to the sun in the day
What happens to the sun at night?

Sticky Knowledge

What are the 7 days of the week- Days of the week song (EYFS)
What do we wear in the sunshine to keep us safe?
What do we wear in winter to keep us warm?

Intent

- Know that the sun rises across the sky during the day (east to west) It rises and falls.
- Begins to understand that our planet spins
- Begins to know the sun is still there at night; we just can't see it.
- Know there are less hours of day light in winter and more in summer.

12. How can we stay safe in the sun and the dark

Sticky Knowledge

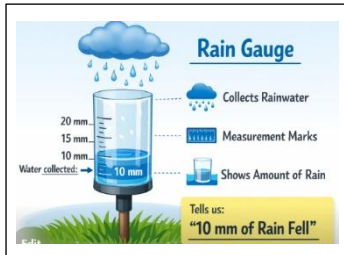
Does it get hotter or colder near the equator?
What does a rain gauge do?
What does a wind sock do?

Intent

- Know the dangers of strong sunlight (eyes and skin) know how to protect themselves (sunglasses, sun cream)
- Know the dangers of the dark (visibility) know how to protect themselves (hi visibility clothing lights etc)

Knowledge organiser

Rain Gauge



A rain gauge is a simple tool used to measure how much rain has fallen.

Easy way to think about it:

- It's like a measuring cup left outside in the rain.
- When it rains, water collects inside it.
- The markings on the side show how much rain has fallen (usually in millimetres).

In short:

A rain gauge tells us how much rain fell in a certain time (like in a day).

Example:

If the gauge shows 10 mm, it means enough rain fell to cover the ground with water 10 millimetres deep (if it didn't soak in or run away).

Daylight hours

We have longer days in summer and shorter days in winter because of how Earth is tilted.

-Earth is slightly tilted (not straight up and down).

-As Earth moves around the Sun, sometimes your part of Earth tilts towards the Sun, and sometimes away from it.

In summer:

Our part of Earth is tilted towards the Sun

The Sun stays in the sky longer

Days are longer, nights are shorter

The Sun is higher in the sky

In winter:

Our part of Earth is tilted away from the Sun

The Sun is in the sky for less time

Days are shorter, nights are longer

The Sun stays lower in the sky

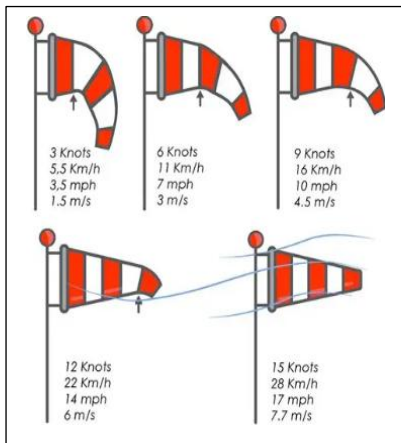


Easy way to remember:

Tilt towards Sun = more daylight (summer)

Tilt away from Sun = less daylight (winter)

Windssocks



A windssock is a cone-shaped tube made of lightweight fabric. It is designed to show wind direction and give a rough idea of wind speed. Windssocks are often brightly coloured (like orange and white) so they are easy to see from far away.

What information does a windssock show?

1. Wind direction- The wide end faces into the wind -The narrow end points away from the wind.

2. Wind speed (approximate) Hanging down → very light wind Partly extended → moderate wind. Fully extended (horizontal) → strong wind

BBC Official weathers and symbols

