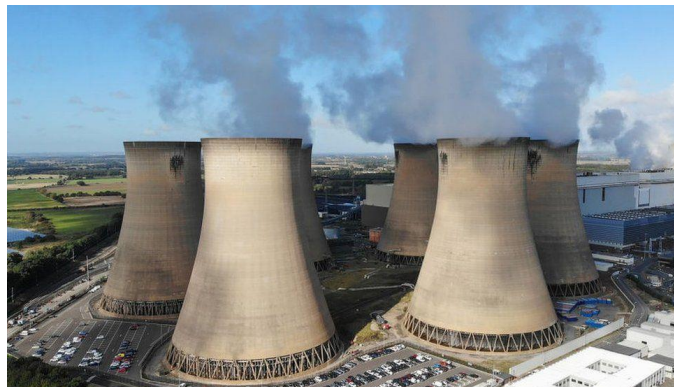




# Climate Change



# How much do you know about Climate Change?





**LO: I can describe the  
difference between  
weather and climate.**



# Weather or Climate

- Watch the video
  - <https://www.bbc.co.uk/bitesize/articles/z7dkhbk#zhp2m39>



# Weather

**Weather** is a description of what the conditions are like in a particular place. For example, it could be:

- hot or cold
- wet or dry
- windy or calm
- Stormy, with thunder and lightning





# Climate

Watch the video

<https://www.bbc.co.uk/teach/class-clips-video/articles/zjdthbk>

**Climate** is a description of the average weather conditions in a certain place for the past 30 or so years.

Different areas of the world have different climates. We call these **climate zones**.

- Large areas with similar climates such as:
  - Temperate Climate - 4 distinct seasons with cool winters and warm summers.
  - Polar Climate - very very cold and dry with lots of ice and snow as it is too cold for this to melt.
  - Mediterranean Climate – warm dry summers and mild wet winters.
  - Hot Dry Climate – very very hot and dry as it hardly ever rains.
  - Tropical Climate – hot all year round but very wet.



# Climate

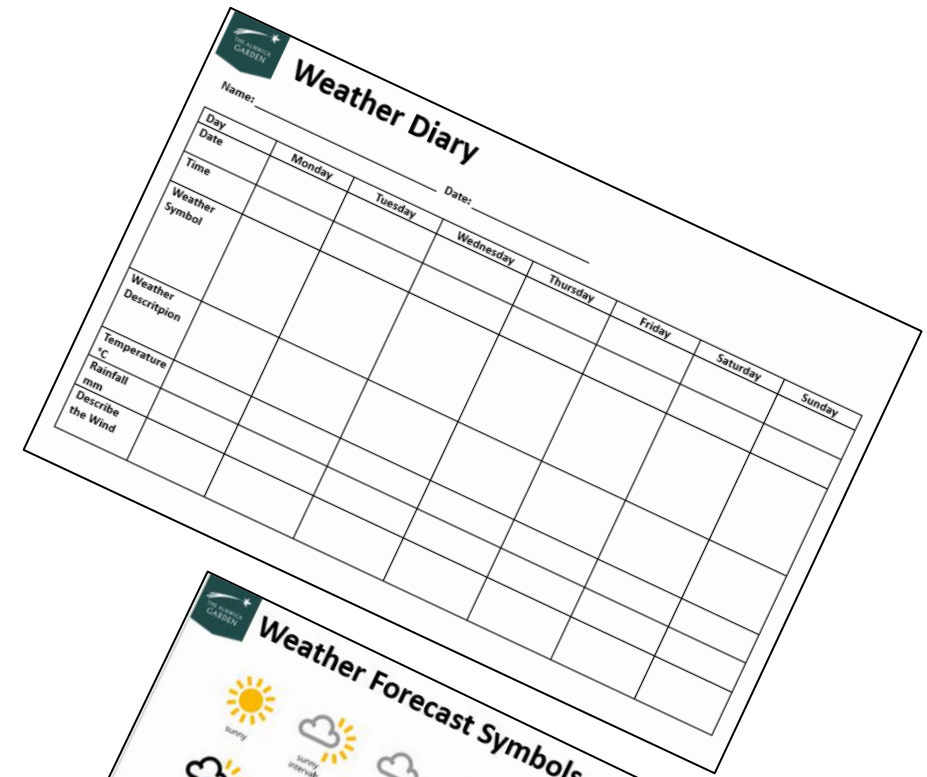
- <https://www.bbc.co.uk/teach/class-clips-video/articles/zkk6t39>
- Climate is influenced by lots of different things, including:
  - how near or far a place is from the Equator
  - how near or far it is from the sea
  - how high or low the ground is
  - its position on a continent

**LO: I can keep a  
weather diary.**



# Weather Diary

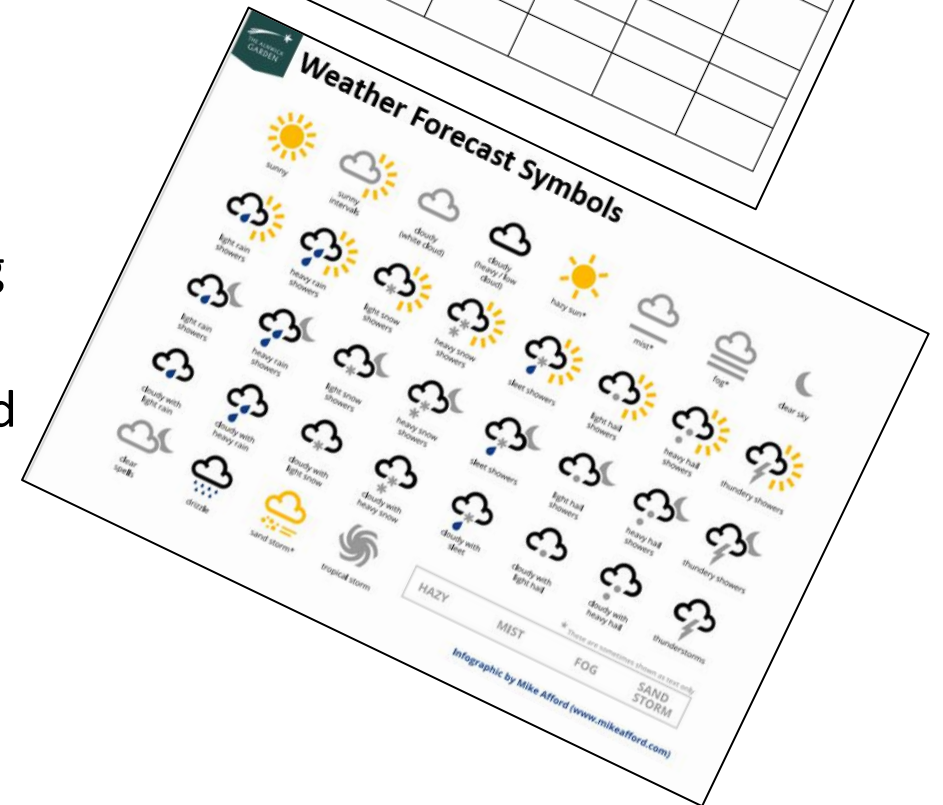
- Using the Weather Diary Activity Sheet, you are going to record the weather for each day.
- For each day, draw a symbol to show what the weather is like - for example, a cloud symbol, a sun, or raindrops.
- You could be as specific as you like – recording the weather just once a day, or perhaps in both the morning and evening, or even every hour.
- Record the temperature ( $^{\circ}\text{C}$ ) each day at a specific time using a thermometer.
- Measure the rainfall each day by placing a beaker outside and measuring the amount of water that fills it each day.
- Measure the wind by using a bubble mixture to create bubbles and timing how long the bubbles take to drift across a metre of ground (if they just drop then there is no, or very little wind).



**Weather Diary**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

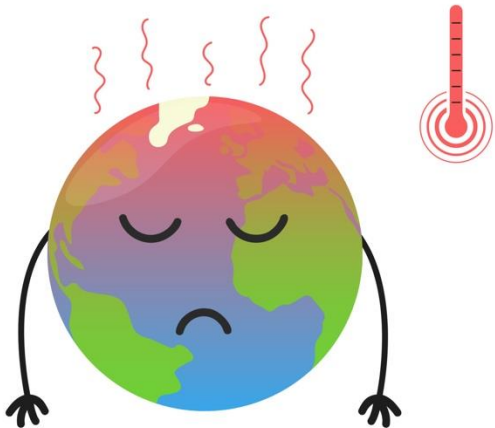
Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Time							
Weather Symbol							
Weather Description							
Temperature $^{\circ}\text{C}$							
Rainfall mm							
Describe the Wind							



**LO: I understand what  
Climate Change is.**



**What words do you  
think of when you hear  
Climate Change?**



# Climate Change – True or False

- The climate across the world has **changed naturally** over thousands and millions of years.
- In the past, the UK has experienced both freezing ice ages and warm tropical climates.
- Over the past 100 years, more carbon dioxide has entered the Earth's atmosphere.
- The atmosphere helps to keep our planet at just the right temperature to live on.
- The extra carbon dioxide in the atmosphere acts like a **greenhouse**. It lets the Sun's rays through to heat up everything, but stops the heat from escaping.
- The increase in gases from human activity is making our planet warm much faster than it naturally would.
- World climates are changing. It seems extreme weather is now happening more frequently.



Watch the video:

<https://www.bbc.co.uk/bitesize/articles/z4g3f82#zs7jwnb>

# Impact of Climate Change Drought – WHY?



# Impact of Climate Change Melting Glaciers, Sea Ice and Ice Sheets – WHY?



# Impact of Climate Change Frequent and Powerful Flooding and Storms –WHY?





# Impact of Climate Change Forest Fires – WHY?





# Impact of Climate Change Hurricanes – WHY?



# Impact of Climate Change Animals Losing Habitats – Deforestation – WHY?



# Impact of Climate Change Hunger – WHY?



**LO: I can  
suggest ways  
that humans  
can help reduce  
climate change.**



# The Impact of Climate Change on the UK

- The UK is suffering more extreme weather events as the climate changes.
- The UK's climate is changing – the 21<sup>st</sup> Century has so far been warmer than the past 3 centuries.
- Temperature, rainfall and sunshine for 2020 were all in the top ten highest on record – the first time this has happened in a single year.

## 2020 was the...

- 3<sup>rd</sup> warmest year. All of the top 10 warmest years have occurred since 2002.
- 5<sup>th</sup> wettest year . Wettest February. Six of the top 10 wettest years have occurred since 1998.
- 8<sup>th</sup> sunniest year. Sunniest spring. Sunniest calendar month (May 2020)
- One of the least snowy years on record. The number and severity of some events has generally declined since the 1960s.

# Save the Planet

## Activity

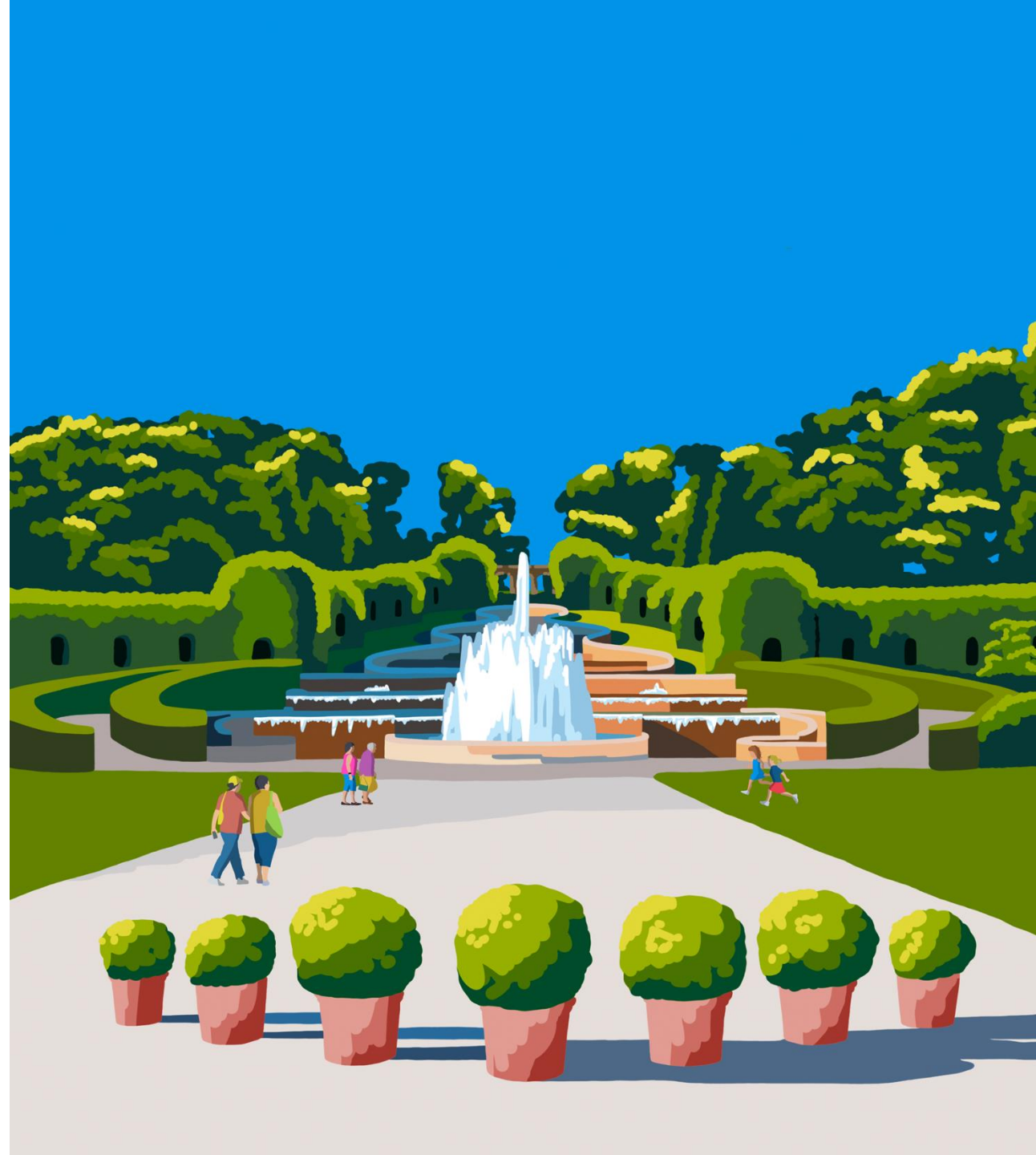
- Look at the activity sheet that you have been given.
- For each of the statements that are made, can you give the reason why this will help Save the Planet.
- Are you able to suggest anymore actions that we can take to Save the Planet.
- Choose one of the statements given and design an A4 poster to reinforce this message.
- This can be displayed in school to make everyone aware of what they could be doing to help Save the Planet.



**Save the Planet**  
Explain how each of the activities below will help Save the Planet.

Activity	Why will this help Save the Planet?
Plant a tree or plant	
Turn off the taps	
Shop at the local shops	
Eat less meat	
Up-cycle old belongings	
Get the bus	
Switch off the lights	
Pick up litter	
Bring own water bottles	
Recycling	
Put solar panels on your house	

**LO: I can suggest ways  
that The Alnwick  
Garden can contribute  
to stopping Climate  
Change.**



# The Alnwick Garden Carbon Reduction Plan

- The Alnwick Garden is committed to achieving net zero emissions by 2030.
- Some initiatives have been introduced to reduce our carbon footprint including:



Employee electric  
car scheme



Waste reduction  
recycling



Reduced deliveries



Sustainable purchasing



Single-use plastic  
reduction



Increased employee and  
customer education

# The Alnwick Garden Climate Scenario

- You are an Environmentalist and have been employed by The Alnwick Garden.
- An Environmentalist is a person who is highly trained in performing various duties that support environmental preservation and protection.
- When you visited The Alnwick Garden, you visited various parts of the Garden.
- As you know, The Alnwick Garden is already introduced some initiatives to reduce their carbon footprint.
- You have been tasked to think of something extra that The Alnwick Garden could adopt to help reduce their carbon footprint even further.
- Your ideas could be sent into The Alnwick Garden to be displayed in the Apiary.
- Your idea could possibly be adopted across The Alnwick Garden.



# Climate Change Key Vocabulary



- Weather
- Climate
- Anemometer
- Thermometer
- Precipitation
- Run-off
- Equator
- Mediterranean Climate
- Temperate Climate
- Ocean
- North Pole
- South Pole
- Continent
- Environmentalist
- Flood
- Hurricane
- Drought
- Carbon Footprint
- Sustainable
- Recycling