

Secondary

# A Promise to Our Planet

Get involved,  
learn about climate change,  
make your own leaf,  
write your own promise.

Visit John Hansard Gallery and  
find your promise on our  
“Promise Tree”



John  
Hansard  
Gallery

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Southampton

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# Climate Change

## CAUSES



## Effects



## IMPACTS

## SOLUTIONS

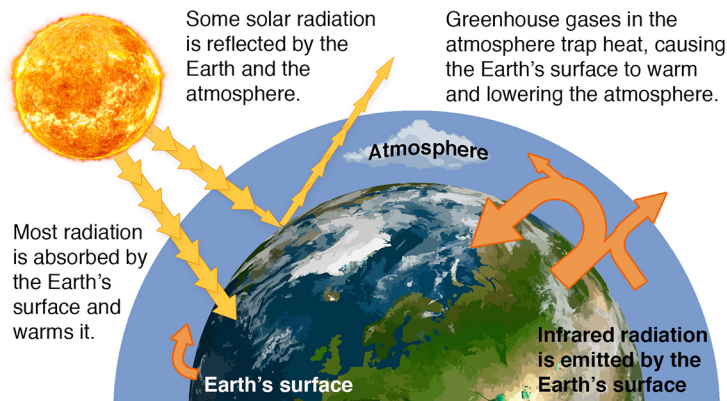


# Climate Change

Climate change describes the long-term changes in Earth's temperature.

Global temperatures have been rising for over a century, they have accelerated in the past 30 years and are now the highest on record.

The actions of humans are causing the temperature to rise faster than any time in Earth's history. These changes are causing the Earth to heat up and is also known as global warming, affecting people, wildlife and the future of our planet.



# Causes

The main cause of climate change is human activity and the release of greenhouse gases causing the Earth's atmosphere to trap more and more heat.

**Burning fossil fuels** Fossil fuels such as oil, gas, and coal contain carbon. When burnt they release Carbon dioxide into the air.

**Deforestation** Forests remove and store carbon dioxide from the atmosphere. Cutting them down means that carbon dioxide builds up quicker since there are no trees to absorb it.

**Agriculture** Planting crops and rearing animals releases many different types of greenhouse gases into the air.

**Cement** Producing cement is another contributor to climate change, causing 2% of our entire Carbon dioxide emissions.

**Dumping waste in landfill** When the waste decomposes it produces methane.



# Effects & Impacts

Climate change has already had observable effects on the environment. Glaciers have shrunk, ice on rivers and lakes is breaking up earlier, plant and animal ranges have shifted and trees are flowering sooner.

Effects that scientists had predicted in the past would result from global climate change are now occurring: loss of sea ice, accelerated sea level rise and longer, more intense heat waves. Small changes in the climate system can have significant consequences.

Some of the impacts from these changes to our climate system include:

- Risk to water supplies
- Conflict and climate migrants
- Flooding of coastal regions
- Damage to marine ecosystems
- Loss of biodiversity
- Change in seasonality
- Heat stress
- Forest mortality and increased risk of fires
- Damage to infrastructure
- Food insecurity



# Solutions

**Alternative energy** using alternative energy such as solar, wind or tidal can reduce the use of fossil fuels.

**Planting trees** encouraging afforestation, means that there will be more trees to absorb the carbon dioxide in the atmosphere.

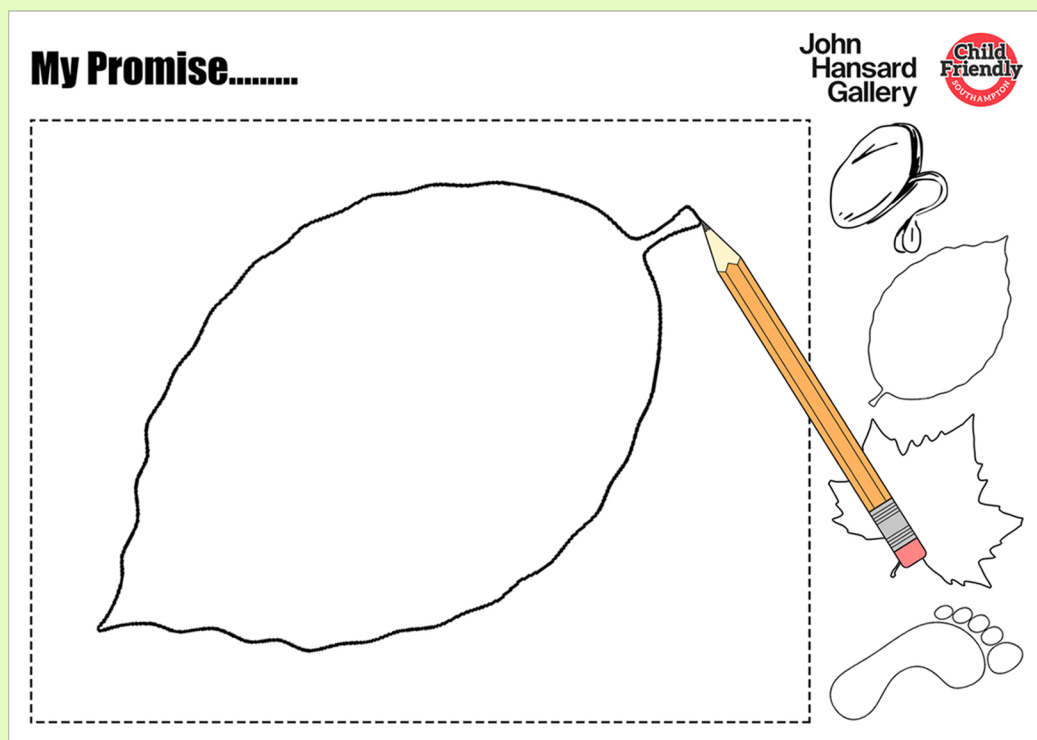
**Carbon capture** this is the removal of carbon dioxide from waste gases from power stations and then storing it in old oil and gas fields or coal mines underground.

**Agriculture** farmers will have to adapt as some crops may not be able to grow in a warmer climate.

**Water supply** water transfer schemes could be used. This is where water is transferred from an area of water surplus to an area of water shortage.

**Reducing risk from sea level rise** areas at risk from sea level rise may use sea defences to protect the land from being eroded away.





## What to do?

**Step 1.** Draw a leaf, seed or footprint and colour it in.

**Step 2.** Think about what you can do to help our planet.

**Step 3.** Write your promise on the leaf.

**Step 4.** Return to John Hansard Gallery.

**Step 5.** Visit the John Hansard Gallery during Community Takeover and see if you can find your promise on our 'Promise Tree'.

## Community Takeover

**19 March - 23 April**

We are excited for the return of Community Takeover at John Hansard Gallery, a celebration of the talents of local people in Southampton of all ages and backgrounds.

Over the course of two months, we will be hosting a range of vibrant, creative responses to themes exploring the environment, sustainability and wellbeing. Working with schools, local charities, artists, and community leaders, we shall explore what we can do to help our planet and our health. Gallery One will be transformed by an assortment displays, films and workshops.

**Handing in dates: 14 March to 8 April 2022**

The sooner you hand your artwork in the longer it will be on display.



For more information  
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023 80  
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**John Hansard Gallery**  
142–144 Above Bar Street  
Southampton  
SO14 7DU

# My Promise.....

John  
Hansard  
Gallery



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**PLACE  
STAMP  
HERE**

**Kat Henderson  
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