

Parent Guide



@twinklparents

We're excited to share this activity with you. If you are interested in finding more exciting, fun and interesting activities for you and your children, then check out these links to different areas of the [Twinkl Parents](#) website.

games



crafts



puzzles



experiments



word searches



What is this resource and how do I use it?

Read about climate change and the reasons why it is happening. The questions after the text will not only test your child's knowledge but will also help to improve the reading skills they practise in school such as inference, retrieval and sequencing.

What skills does this practise?

Reading

Understanding

Retrieval

Summarising

Further Activity Ideas and Suggestions

This **step-by-step guide** is full of helpful tips and advice. Once children start to read longer chapter books, it can become a bit monotonous reading the same book for a long time; this **Creative Reading Challenge** might inject a little interest into reading. Take a look at the **Year 6 Reading Comprehension** category on the Parents Hub for more comprehension tasks.

Parents Blog



Twinkl Kids' TV



Homework Help



twinkl

Parents Hub

Why is the climate changing?

Reading Comprehension

Ages
10-11



What is climate change?

Climate change is the change in the temperature and weather of an area over a long period of time. Scientists estimate that since the Industrial Revolution, human activity has caused the Earth to warm by one degree Celsius. While this might sound like a minor change, it means big things for people and wildlife around the world. Unfortunately, a rise in temperature doesn't mean nicer weather - the changing climate will bring more extreme and unpredictable weather. In fact, many of the warmest years on record have happened in the last twenty years. Some of these changes are as a result of natural changes, such as variations in the solar system, but the majority are as a result of human activities.

What causes climate change?

The main causes of climate change are human activities - like cutting down forests, driving cars, creating electricity and burning fossil fuels. The process of burning fossil fuels (coal, gas and oil) has impacted climate change significantly. This process creates greenhouse gases which absorb heat/energy leaving Earth's surface, warming the atmosphere. The greenhouse effect is a natural process that makes the Earth a comfortable place to live. However, the increase in greenhouse gases from human activity is making things hotter than they should be. Plants, soils and the oceans can absorb these harmful gases, but they can't keep up with the quantity being produced. Some greenhouse gases stay in the atmosphere for very long periods of time, from hundreds to even thousands of years.

Climate Change Greenhouse Gases

The most common types of greenhouse gases are:

- Carbon Dioxide (CO₂): This is the most common greenhouse gas created by human activity. Burning fossil fuels and making cement are two ways in which this gas is released into the atmosphere.
- Methane (CH₄): This is the second most common greenhouse gas created by human activity.

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Most of this gas comes directly from raising livestock.

Others include nitrous oxide (N₂O), which is released by agricultural and industrial activities, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆), which make up only three percent of all greenhouse gases.

The Effects of Climate Change

Warmer temperatures, changing weather patterns and disrupting the usual balance of nature over time pose many risks to both humans and wildlife. Some of these risks include:

Rising Temperatures

Higher temperatures can make it more difficult to work and move around. More heat-related illnesses are also being reported. Wildfires have been a significant problem in recent years.

More Severe Weather Conditions

Changes in temperatures lead to changes in rainfall. In recent times, there have been more frequent and more severe storms around the world. These storms have led to increased flooding and some reports of landslides, destroying buildings and homes.

Increased Drought

While some places are reporting increased flooding, other areas are reporting drought, with water becoming more scarce in more regions. Deserts are expanding, resulting in a loss of land for growing food.

Loss of Species

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Climate change has a devastating, alarming effect on the survival of species both on land and in our oceans. Rising temperatures, loss of land, forest fires, extreme weather and the rise of invasive pests are among these threats.

Warming Oceans

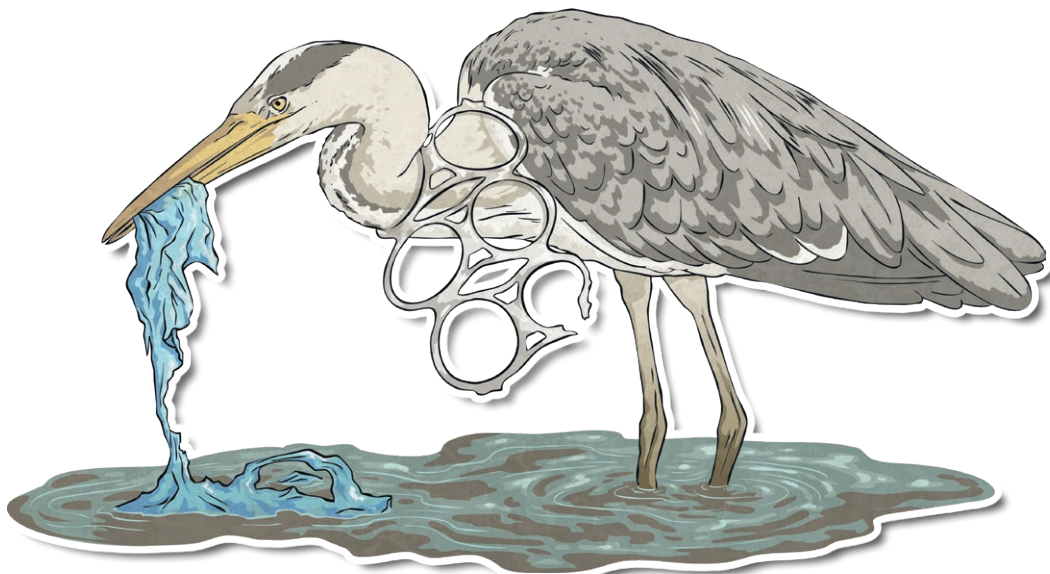
The ocean absorbs heat from global warming, resulting in more ice sheets melting and sea levels rising. It also absorbs carbon dioxide from the atmosphere. Increased levels of carbon dioxide make the oceans more acidic, which sadly endangers marine life.

Lack of Food

The continued changes in the climate are having an impact on food production around the world. Decreased food production contributes to a global increase in hunger and poor nutrition.

Health

Climate change can result in diseases spreading, such as malaria. Extreme weather conditions put a strain on our healthcare systems, making it difficult to help everyone in need.



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What are the solutions?

Everyone can play a part in reducing our carbon footprint (the total amount of greenhouse gases that are generated by our actions) by making small changes. Some of these changes include:

- choosing cleaner ways to power homes and cars
- turning off lights and appliances that are not in use
- planting trees
- walking or cycling if possible
- recycling and reducing food waste

Making these small changes won't erase the significant problem of climate change, but it will certainly work towards a brighter future for us and for generations to come.



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Questions

1. What is climate change also known as? Tick one.

a. Earth cooling

b. temperature/weather changes

c. rivers expanding

d. trees growing

2. Human activity has caused the Earth to warm by how many degrees since the Industrial Revolution? Tick one.

a. 0.1°C

b. 1°C

c. 0.01°C

d. 10°C

3. Find and copy one word which shows that the weather will be 'uncertain'.

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4. Fill in the missing words.

Climate change has a _____, alarming effect on the _____ of species both on land and in our oceans.

5. Name two of the less common greenhouse gases.

6. Why do you think we should be concerned about climate change?

7. What, in your opinion, is the most impactful effect of climate change and why?

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8. Imagine you have been appointed Project Manager of the task of tackling global warming. Name the first three steps you will take.

1. _____

2. _____

3. _____

9. Summarise what you learnt about climate change using 25 words or fewer.

10. Tick one box in each row to show whether each statement is true or false.	True	False
Climate change (or global warming) usually occurs over a short period of time.		
The two most common greenhouse gases are carbon dioxide and nitrous oxide.		
Plants, soils and oceans can absorb harmful greenhouse gases.		
People, products and entire industries have carbon footprints.		
There are no solutions to combating climate change.		

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Questions - Answers

1. What is climate change also known as? Tick one.

a. Earth cooling

b. temperature/weather changes

c. rivers expanding

d. trees growing



2. Human activity has caused the Earth to warm by how many degrees since the Industrial Revolution? Tick one.

a. 0.1°C

b. 1°C

c. 0.01°C

d. 10°C



3. Find and copy one word which shows that the weather will be 'uncertain'.

unpredictable

4. Fill in the missing words.

Climate change has a **devastating**, alarming effect on the **survival** of species both on land and in our oceans.

5. Name two of the less common greenhouse gases.

Accept any two of the following:

nitrous oxide (N₂O)

hydrofluorocarbons (HFCs)

perfluorocarbons (PFCs)

sulphur hexafluoride (SF₆)

6. Why do you think we should be concerned about climate change?

Child's own response, such as: We should be concerned about climate change as its effects are devastating. If we continue to ignore what is happening, we will cause irreversible damages for future generations. We need to all act together to make a change.

7. What, in your opinion, is the most impactful effect of climate change and why?

Child's own response, such as: In my opinion, I believe that loss of species is the most impactful effect of climate change as this could result in many of our wildlife species becoming extinct. Once they become extinct we can't get them back. This will cause irreversible problems for our food chains and other species.

8. Imagine you have been appointed Project Manager of the task of tackling global warming. Name the first three steps you will take.

Child's own response, such as: As Project Manager my first three steps will be to:

- **inform people more about climate change and the devastation it causes**
- **create 'How to Tackle Climate Change' promotional videos and advertisements**
- **create an award system for companies who use less packaging and for homeowners who use less electricity**

9. Summarise what you learnt about climate change using 25 words or fewer.

Child's own response, such as: I have learnt that climate change is a massive problem that affects both us and wildlife. We need to work together to make a change.

10. Tick one box in each row to show whether each statement is true or false.	True	False
Climate change (or global warming) usually occurs over a short period of time.		✓
The two most common greenhouse gases are carbon dioxide and nitrous oxide.		✓
Plants, soils and oceans can absorb harmful greenhouse gases.	✓	
People, products and entire industries have carbon footprints.	✓	
There are no solutions to combating climate change.		✓

***Disclaimer:** We hope you find the information on our website and resources useful. As far as possible, the contents of this resource are reflective of current professional research. However, please be aware that every child is different and information can quickly become out of date. The information given here is intended for general guidance purposes only and may not apply to your specific situation.

While every care has been taken to ensure that there are no significant emotional triggers regarding eco-anxiety for learners in this lesson, any feelings that arise should be embraced and discussed non-judgementally.