

# *Global Warming*

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**From your  
perspective,  
what is global  
warming?**



The fact



**The earth is becoming warmer**  
**---but does it matter?**



The problem



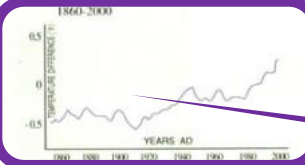
# Read for structure

## THE EARTH IS BECOMING WARMER - BUT DOES IT MATTER?

During the 20th century the temperature of the earth rose about one degree Fahrenheit. That probably does not seem much to you or me, but it is a rapid increase when compared to other natural changes. So how has this **come about** and does it matter? *Earth Care's* Sophie Armstrong explores these questions.

There is no doubt that the earth is becoming warmer (see **Graph 1**) and that it is human activity that has caused this global warming rather than **random** but natural **phenomenon**.

Graph 1: Temperature difference from long-term average



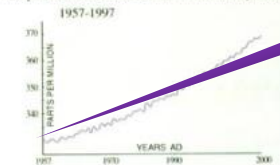
All scientists **subscribe to** the view that the increase in the earth's temperature is due to the burning of fossil **fuels** like coal, natural gas and oil to produce energy. Some byproducts of the process are called "greenhouse" gases, the most important of which are carbon dioxide and methane.

Janice Foster explains: "There is a natural phenomenon that scientists call the 'greenhouse effect'. This is when small amounts of gases in the atmosphere, like carbon dioxide, methane and water vapour, trap heat from the sun and therefore warm the earth. Without the 'greenhouse effect' the earth would be about thirty-three degrees Celsius cooler than it is. So, we need those gases. The problem begins when we add huge **quantities of** extra carbon dioxide into the atmosphere. It means that more heat energy **tends to** be trapped in the atmosphere causing the global temperature to **go up**."

We know that the levels of carbon dioxide have increased greatly over the last 100 to 150 years. It was a scientist called Charles Keeling, who made accurate measurements of the amount of carbon dioxide in the atmosphere from 1957 to 1997. He found that between these years the carbon dioxide in the atmosphere went up from around 315 parts to around 370 parts **per million** (see Graph 2).

All scientists accept this **data**. They also agree that it is the burning of more and more fossil fuels that has resulted in this increase in carbon dioxide. So how high will the temperature increase go? Dr Janice Foster says that over the next 100 years the amount of warming could be as low as 1 to 1.5 degrees Celsius, but it could be as high as 5 degrees.

Graph 2: Carbon dioxide content in the atmosphere, 1957-1997



However, the attitudes of scientists towards this rise are **completely different**. On the one hand, Dr Foster thinks that the **level** which increases the temperature by 5 degrees would be a **catastrophe**. She says, "We can't predict the climate well enough to know what to expect, but

it could be very serious." Others who agree with her think there may be a rise of several metres in the sea level, or predict severe storms, **floods**, droughts, famines, the spread of diseases and the disappearance of species. On the other hand, there are those, like George Hambley, who are **opposed to** this view and believe that we should not worry about high levels of carbon dioxide in the air. They predict that any warming will be **mild** with few bad environmental **consequences**. In fact, Hambley **states**, "More carbon dioxide

is actually a positive thing. It will make plants grow quicker; crops will produce more food; we will encourage a greater number of animals - and all of which will be a life for human beings - better than we have now."

Greenhouse gases continue to build up in the atmosphere. **Even if** we start reducing the amount of carbon dioxide and other greenhouse gases the climate is going to **keep on** warming for decades or centuries. **No one** knows how long it will take to stop global warming. Does that mean we should do nothing? Or, are the risks too great?

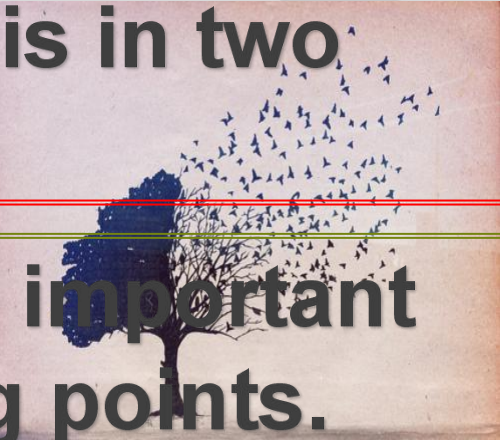
**Title:** It gives the topic and main idea.

**Para1:** It runs across the page and is in bold.

**Two graphs:** They illustrate points by providing evidence.

**Para2-7:** The main text is in two columns.

**Three quotes:** They are important and interesting points.



# Read for specific information(Para1)

Reading



1°C=33.8°F

**THE EARTH IS BECOMING WARMER BUT DOES IT MATTER?**

During the 20th century the temperature of the earth rose about one degree Fahrenheit. That probably does not seem much to you or me, but it is a rapid increase when compared to other natural changes. So how has this come about and does it matter? Earth Care's Sophie Armstrong explores these questions.

**Q1: What's the purpose of the Para1?**

To introduce the topic and specify the title.

**Q2: Who wrote the magazine article? What is the name of the magazine?**

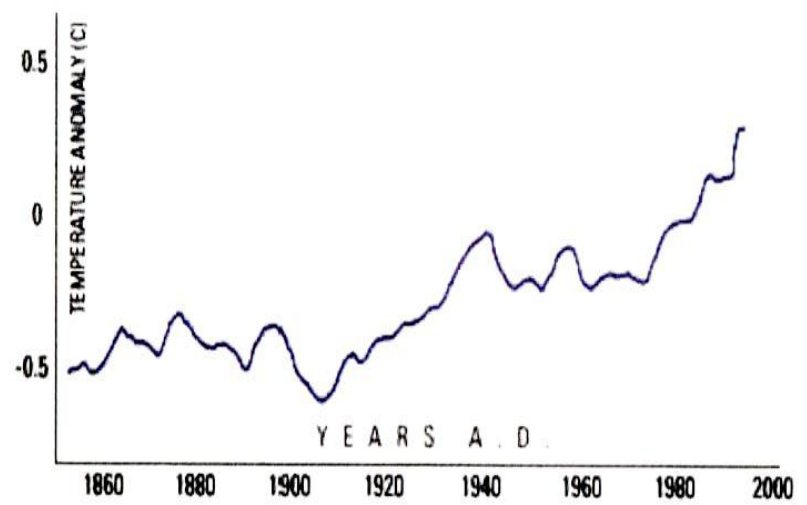
Sophie Armstrong. Earth care.



# Read the Graph1 for specific information

## (Para2)

Graph 1: Temperature difference from long-term average, 1860-2000



There is no doubt that the earth is becoming warmer (see Graph 1) and that it is human activity that has caused this global warming rather than a random but natural phenomenon. ~~X~~

## Detailed information

Between 1860 to 2000, the global average temperature went up from -0.5 to 0.5 Fahrenheit.



# Read for specific information(Para3)

**Q:** What causes the increase of earth's temperature?

The burning of fossil fuels like coal, natural gas and oil.

To produce energy.

CO<sub>2</sub> greenhouse gases

Some byproduct.

**Q:** Do all scientists share the same view?

**YES. They subscribe to the view.**

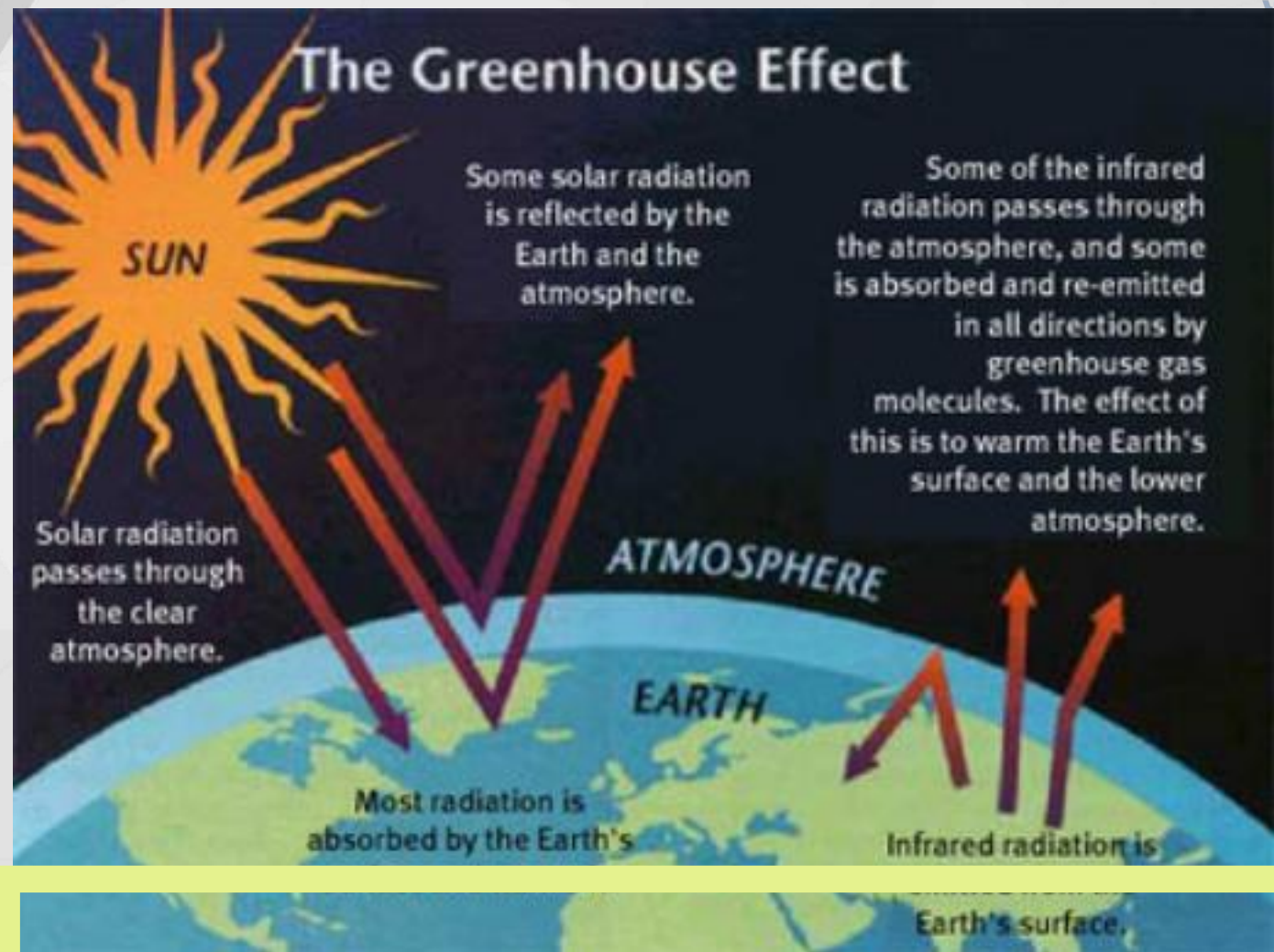
(share the view / agree with others / reach an agreement)



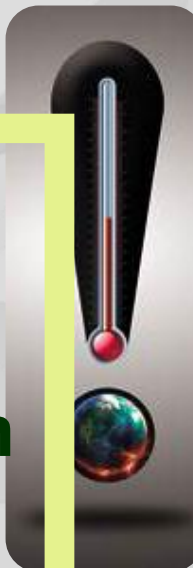
# Greenhouse



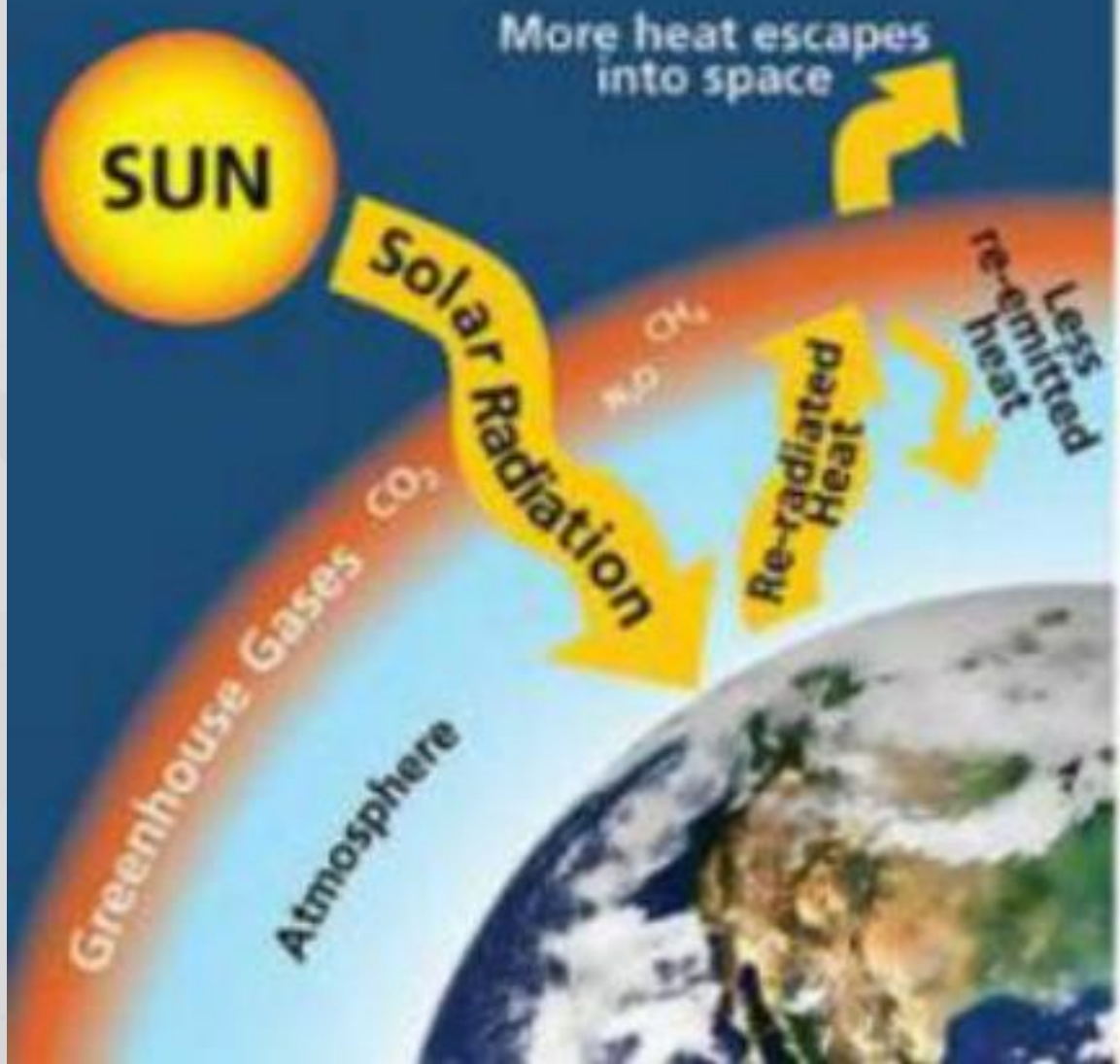
Glass traps the heat from the sun and keeps it from escaping, making the greenhouse heat up.



The greenhouse gases perform the same function as the glass. They trap the heat from the sun and keep it from escaping, making the earth heat up.



# Natural Greenhouse Effect



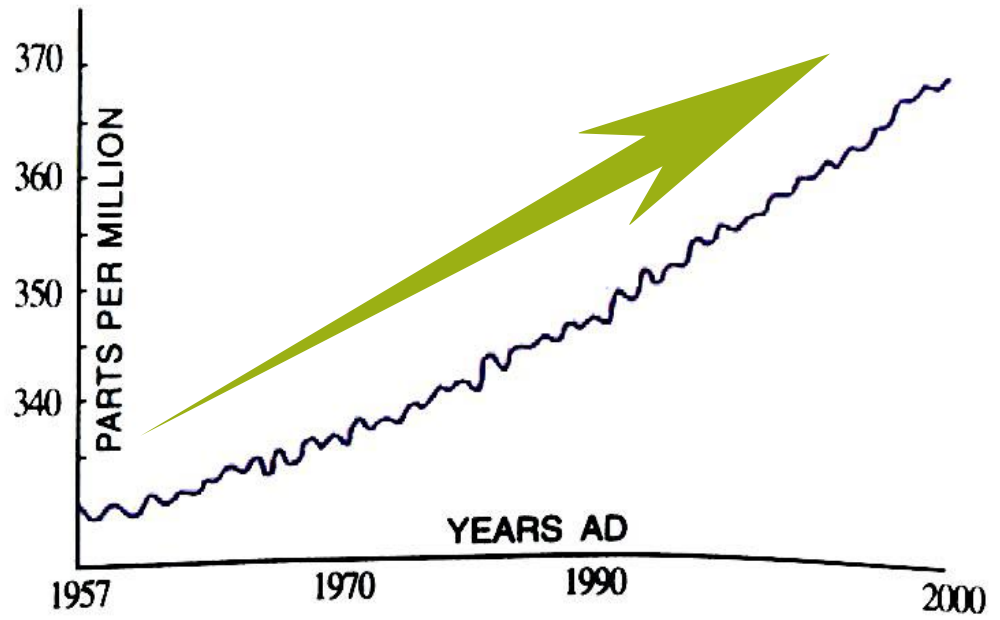
# Human Enhanced Greenhouse Effect



# Read the Graph2 for specific information

(Para4-5)

Graph 2: Carbon dioxide content in the atmosphere, 1957-1997



➤ We know that the levels of carbon dioxide **have increased greatly** over the last 100 to 150 years.

➤ It was a scientist called **Charles Keeling** who made accurate measurements of CO<sub>2</sub> in the atmosphere from **1957** to **1997**. He found that between these years, the carbon dioxide content of the atmosphere went up from around **315** parts per million to around **370** parts per million.



**Q:** Do all scientists subscribe to this data?

**YES.** They accept this data.

**P2:** All scientists subscribe to the view that the increase in the earth's temperature is due to the burning of fossil fuels...

They agree that it is the burning of more and more fossil fuels that has resulted in this increase in carbon dioxide.

**Q:** What will happen to the temperature in the next 100 years?

The amount of warming could be as low as 1 to 1.5 °C, but it could be as high as 5°C.



# Read for ideas(Para6)

All scientists **subscribe to** the view.

They **accept** the data.

They **agree that** the burning of fossil fuels has resulted in the increase in carbon dioxide.

Do all scientists share the same attitude towards the rise?

**No. The attitudes are completely different.**

**They agree to some facts.**

Different ideas

Different ideas

Different ideas

Different ideas

## DR Janice Foster

a catastrophe

rise of sea level

severe storms

floods

droughts

famines

spread of diseases

disappearance of  
species

VS

## George Hambley

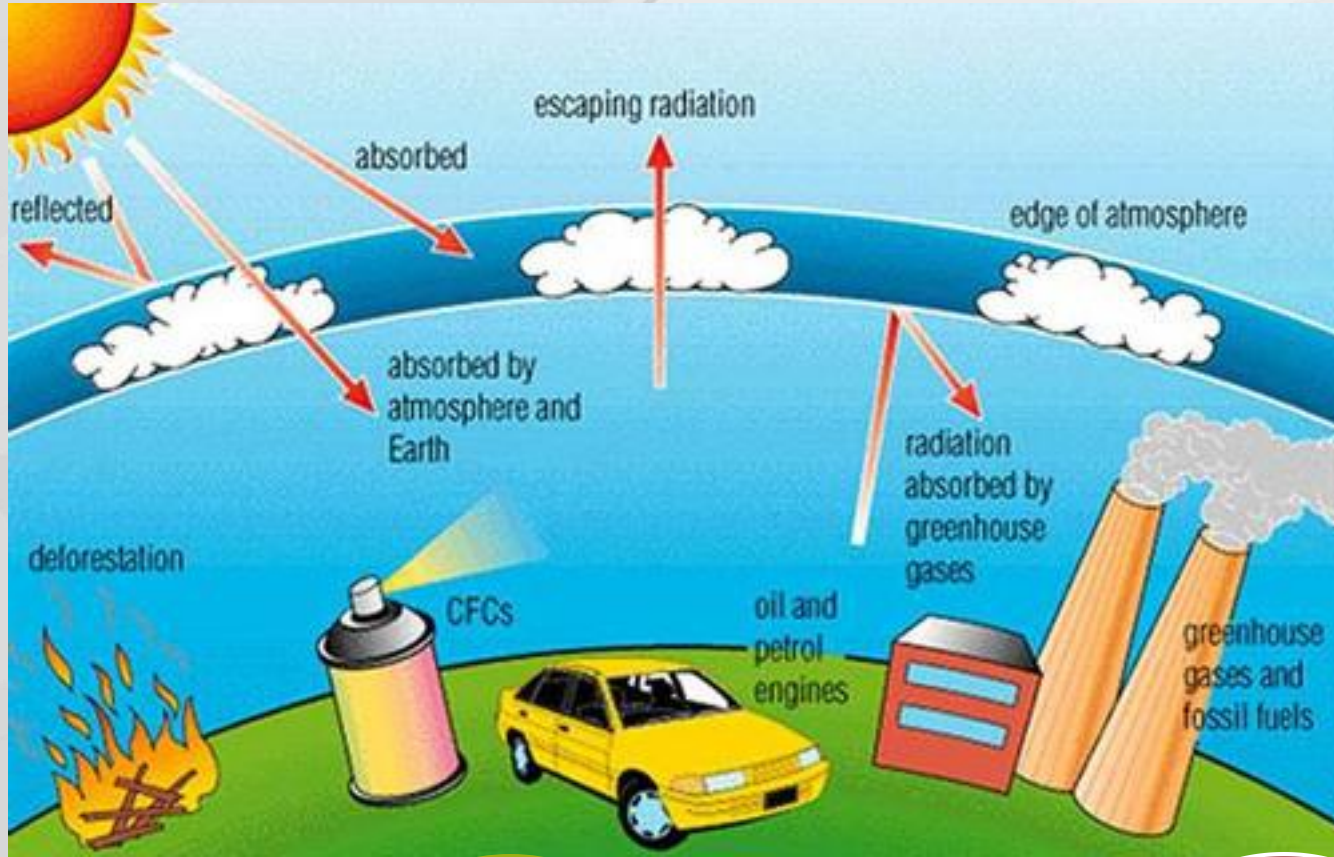
a positive thing

plants grow quicker

crops produce  
more

greater range  
of animals

# Read for further thinking (Para7)



Greenhouse gases

The climate keeps on warming

The amount of

effects

?

do nothing

?

the risks

?

CO<sub>2</sub>



# What should we do for our earth and for ourselves?





# Thank you!

