

Welcome to GCSE Geography



Where will it take us today?

	A01: Knowledge	A02: Understanding	A03: Application of K&U
Comprehensive	good range detailed and accurate fully relevant to the Qn	good range detailed and accurate fully relevant to the Qn	detailed & accurate analysis substantiated judgements substantiated evaluation
Thorough	range accurate relevant to the Qn.	range accurate relevant to the Qn.	accurate analysis supported judgements supported evaluations
Reasonable	some relevant to the Qn.	some; relevant to the Qn	some accuracy partially supported judgement partially supported evaluation
Basic	limited relevant knowledge	limited but relevant	limited analysis unsupported judgement unsupported evaluation



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GEOGRAPHY Home KS3 **KS4** Links Twitter Games! GeoLingo Key Dates More... 🔍 👤

Welcome!

OCR B GCSE 9-1: Geography for Enquiring Minds

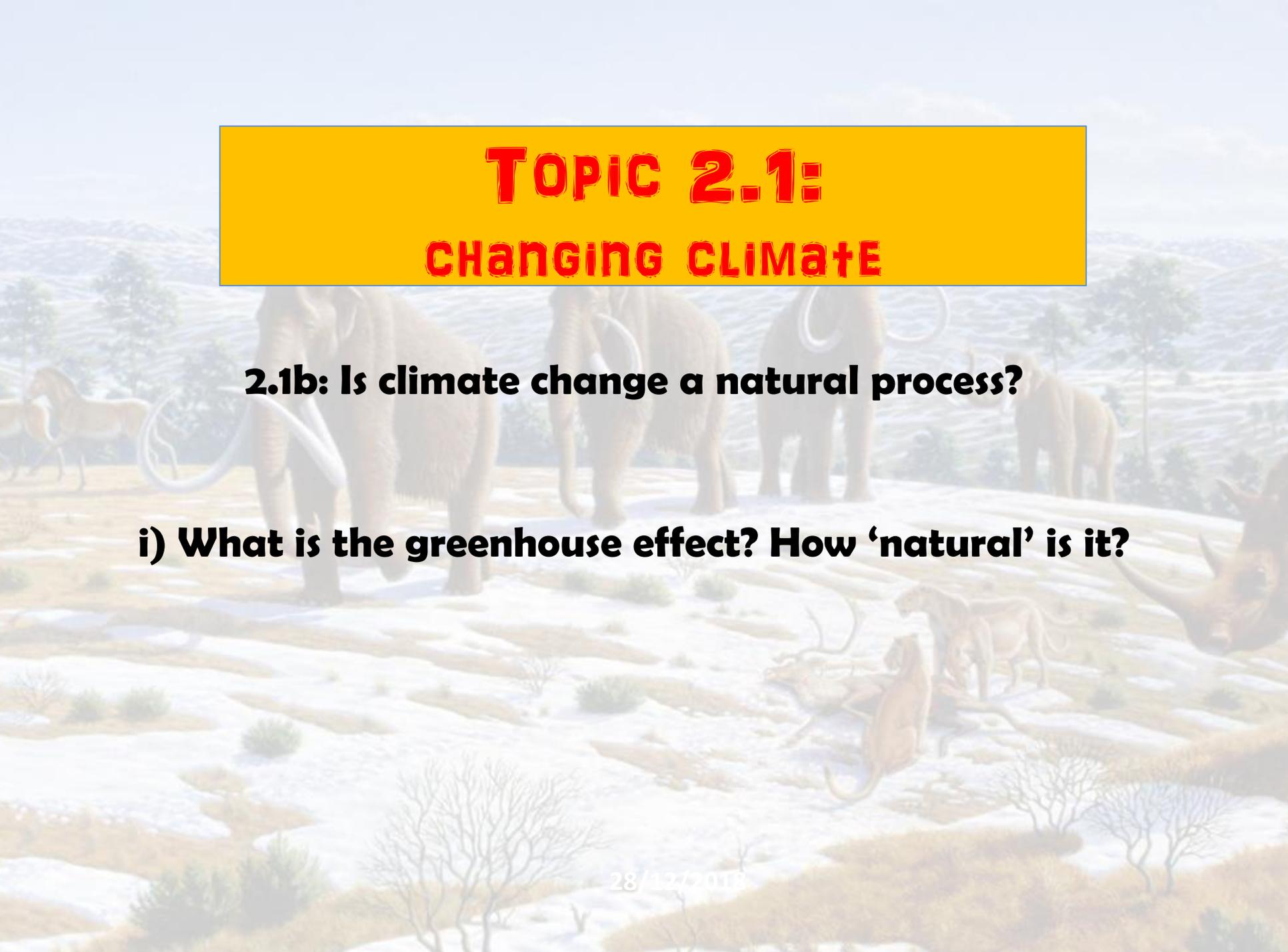
Use the links below to navigate to your current GCSE geography topic

- [1. Global Hazards](#)
- [2. Changing Climate](#)
- [3. Distinctive Landscapes](#)
- [4. Sustaining ecosystems](#)
- [5. Urban Futures](#)
- [6. Dynamic Development](#)
- [7. UK in the 21st century](#)
- [8. Resource Reliance](#)
- [9. Y11 Revision Resources](#)

The G.C.S.E geography course in a nutshell [well... a one page summary]

 [gcses_9-1_geography_news.pdf](#)
Download File

1	G	3c
		3b
		3a
2	F	4c
		4b
		4a
3	E	5c
		5b
		5a
4	D	6c
		6b
		6a
5	C	7c
		7b
		7a
6	B	8c
		8b
		8a
7	A	EP
		EP
		EP
8	A*	EP
		EP
		EP
9	A*	EP
		EP
		EP

A prehistoric landscape illustration featuring several mammoths in the foreground and middle ground. In the background, there are other animals like horses and a rhinoceros. The terrain is hilly with sparse vegetation and a clear sky.

TOPIC 2.1: CHANGING CLIMATE

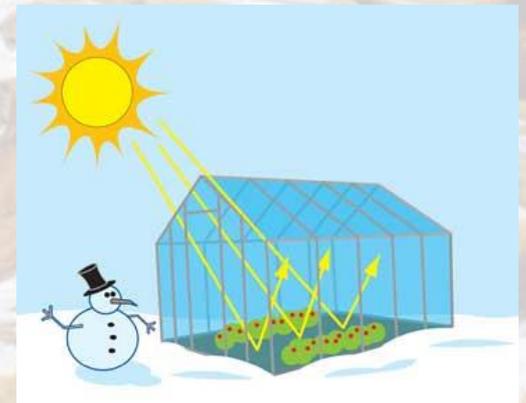
2.1b: Is climate change a natural process?

i) What is the greenhouse effect? How 'natural' is it?

1. Unscramble 2. Link together 3. link to previous learning



sugnoeheer
sgsae
oacbrn ddexiio
haentm
rtnidiaao
riganwm



4. Add your own!

Think back.....



Nepal earthquake -
magnitude

Nepal earthquake: cost of
damage

Measures plate
movement

3 ways of adapting
buildings to reduce/quake
damage



Drilling for climate
change evidence?

P's & D's are subjective

This is retreating in the
Arctic

Happened most recently
in 1963



MC – evidence of
natural climate
change

2 years after the
eruption of Mount ?
Earth's temperatures
dropped by ? degrees
Celsius

'wobble'

'Mad' spinning?

How many points can you rack up?

Climate Change – Natural Causes

Learning is successful when I can:

*To understand the difference between the greenhouse effect and the enhanced greenhouse effect

Impressive
Vocabulary

Keywords

Greenhouse gases
Radiation
Sub-zero

Geography Skills:

Scale
Conceptual
understanding

Literacy Skills:

Exam response
writing
Describing trends

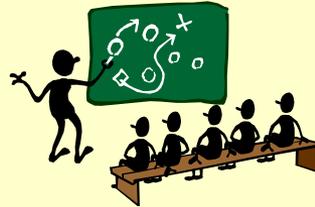
Employability Skills:

Independent thinking
Evaluating sources



PRESENT NEW INFORMATION

LOOK, LISTEN, LEARN



What do we already know about...

the Greenhouse Effect?



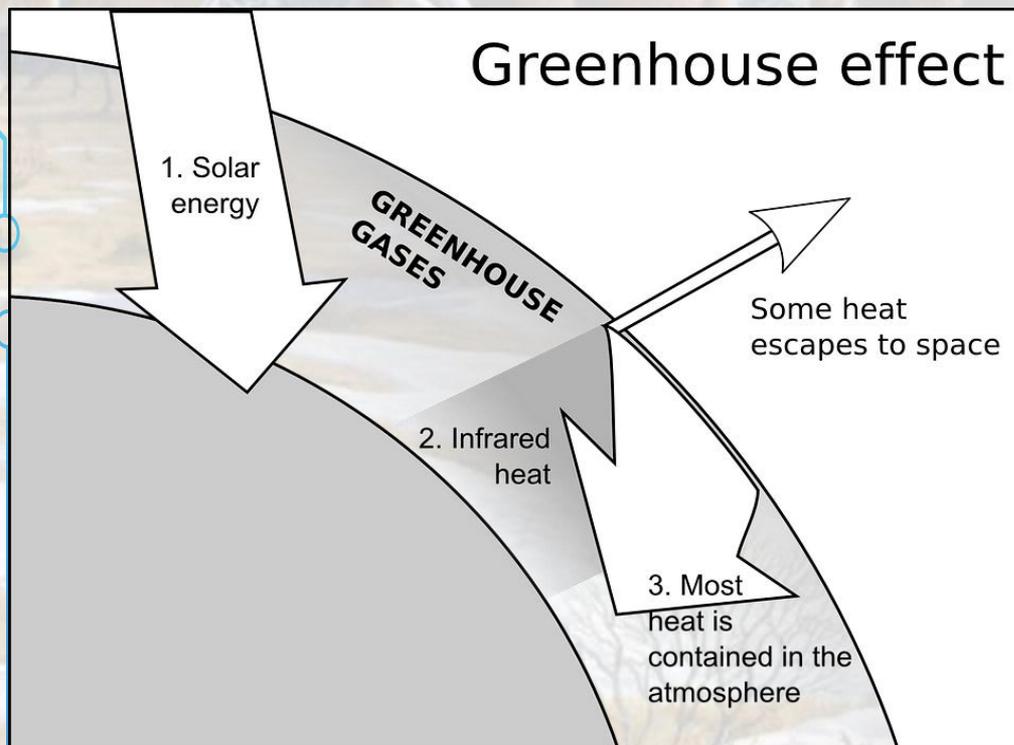
What are we sure of?

What are we pretty sure about?

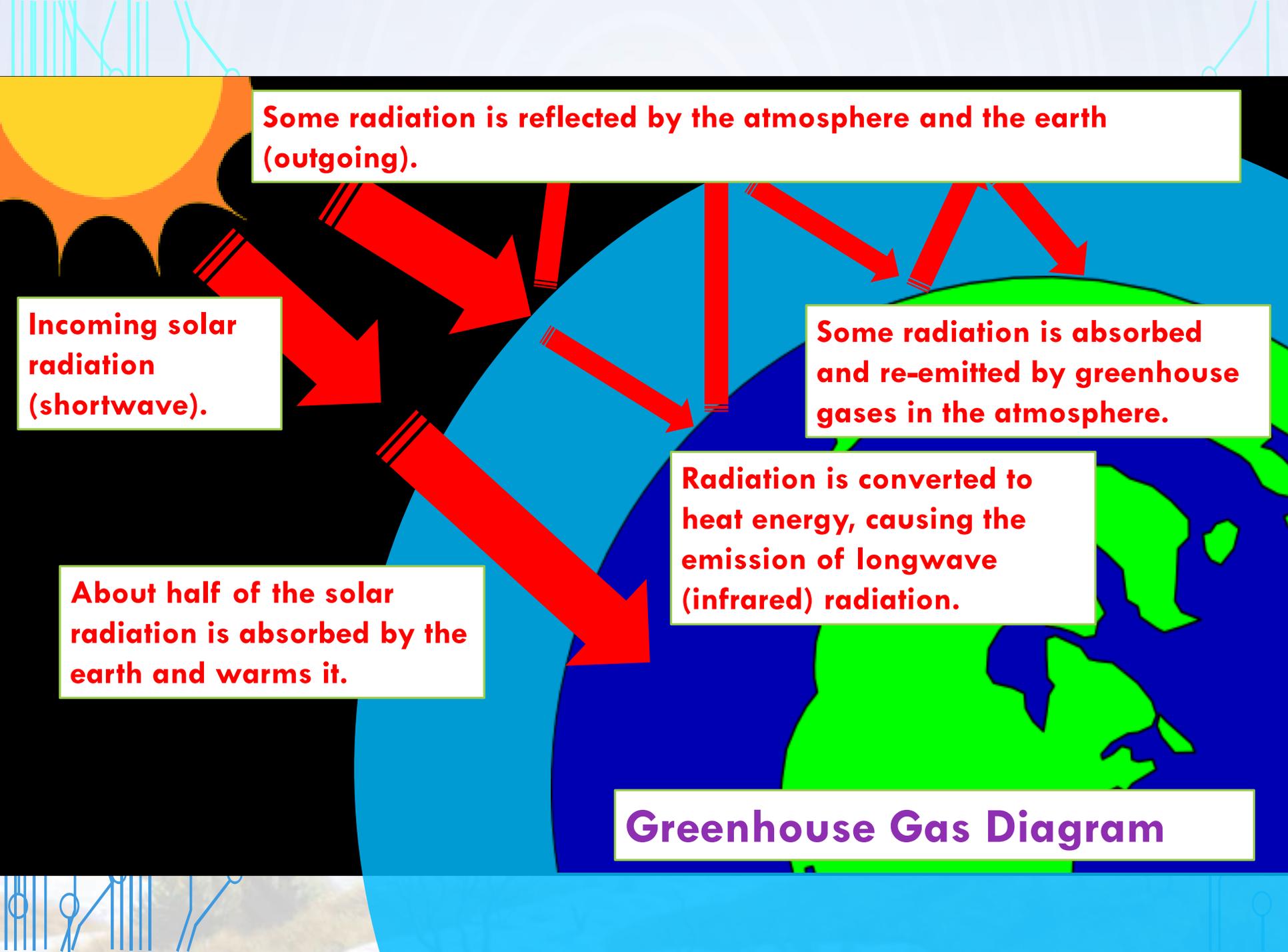
The Natural Greenhouse Effect

RE-ARRANGE ME to get a definition of the natural greenhouse effect!

atmosphere by Earth gases in insolation keep naturally occurring the the trapping warm



Without them it would be too cold for life to exist on Earth. The average temperature would be -18 rather than $+15$!

A diagram illustrating the greenhouse effect. It shows a yellow sun on the left emitting red arrows representing solar radiation towards a blue and green Earth. Some arrows are reflected away from the Earth's surface and atmosphere. Some arrows hit the Earth's surface and are then shown as smaller arrows pointing up towards the atmosphere, where they are reflected back down towards the Earth. Text boxes explain these processes.

Some radiation is reflected by the atmosphere and the earth (outgoing).

Incoming solar radiation (shortwave).

Some radiation is absorbed and re-emitted by greenhouse gases in the atmosphere.

Radiation is converted to heat energy, causing the emission of longwave (infrared) radiation.

About half of the solar radiation is absorbed by the earth and warms it.

Greenhouse Gas Diagram

Greenhouse Gases – what?

1. **W. V. Has a big Effekt as there is more of this than another. Huemanz do not influenza the amount of this so it duzzn't normalee get a menshun in the globe warming debait**
2. **CO₂ Is the most signifekant greenhouse gas, it accounts 4 60% of the enhanced greenhouse Effekt. sources of CO₂ = ???**
3. **Methane accounts for 15% of the enhanced greenhouse efektt; is only prezant in small amounts but is 25 times more effektive than CO₂ radyashun. sources of methane = ???**
4. **Halocarbons, mainly CFCs are the only human-made greenhouse gases. They make up a minute proportion of all greenhouse gases but are 15 000 times more eefishunt at trapping radyashun so account for 15% of the enhanced greenhouse efektt. sources of halocarbons = ???**
5. **Nitrous Oxide is 250 times more eefishunt than CO₂ at trapping radyashun and accounts for 6% of the enhanced greenhouse efektt. sources = ???**

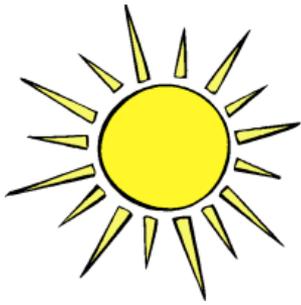
Considering the causes of each of the gases, which would be the easiest to reduce? Explain your answer.

How could we present this data? Why would that techniques be most effective?

Which of the gases is most effective in trapping radiation? **(this is known as the global warming potential)** Why is this important to know?

If you enhance something you intensify, increase, or further improve the quality, value, or extent of. Which of these best fits the definition of the 'enhanced greenhouse effect'?





Light from the Sun

1. What type of radiation does the sun emit?

2. The radiation passes through the Earth's _____ and hits the Earth's surface.

3. When radiation passes through something this means that it is *absorbed / reflected / transmitted*

4. When the radiation hits the Earth's surface some of it bounces back into space. This means it has been *absorbed / reflected / transmitted*

5. Some of the radiation that hits the Earth's surface does not bounce back. This means it has been *absorbed / reflected / transmitted*

6. This radiation warms the Earth's surface and the heat energy is radiated back into space.

This is called _____ radiation.

The Greenhouse effect

Which gases in the atmosphere stop the heat from escaping?

- i.
- ii.
- iii.
- iv.

This is because these gases (*absorb/reflect/transmit*) the heat energy?

Which gas has increased due to humans?

What human activities have led to an increase in this gas?

- i.
- ii.
- iii.



Climate change

What is the difference between the terms 'climate' and 'weather'?

How has the Earth's climate changed over the last 150 years?

What is being done to prevent climate change?

What negative effects might this have?

The biggest overall CO₂ emitter is ?

The biggest CO₂ per capita emitters are ?

Page
59

How does the UK compare?

Think about it #1 what's the fairest way of judging the carbon footprint of a country?

- a) Total amount of carbon dioxide emissions produced? OR
- b) Per capita (per person) carbon dioxide emissions

Think about it #2 China makes a lot of products consumed by other countries?

- a) Where should this CO₂ be accounted for? In China

Climate Change – Natural Causes

Learning is successful now I:

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Exam response
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Employability Skills:

Independent thinking
Evaluating sources

WHAT WOULD AN EXAM QUESTION LOOK LIKE?

12
mins



“Explain why the lifestyles of AC people might be causing climate change” [6]

Steps to Success

1. Box
2. Underline
3. Lingo to include
4. Write it! Remember to Glance back
5. Spell- check

* Point Explain Evidence Evaluation Link

S H E E P Place Specific Detail

WHAT WOULD AN EXAM ANSWER LOOK LIKE?

6
mins
peer
assess

“Explain why the lifestyles of AC people might be causing climate change” [6]



Energy Use - think about demand

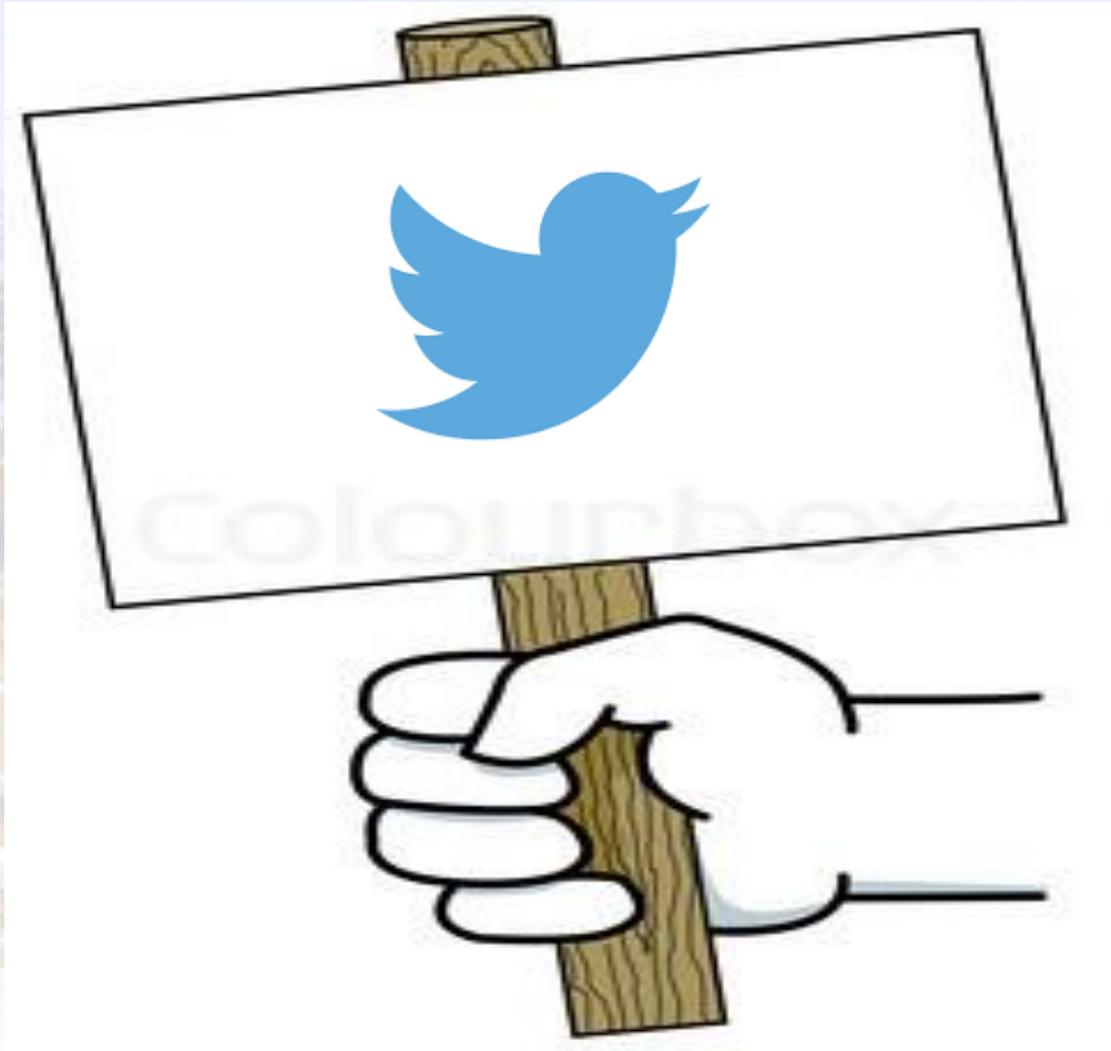
Amount of technology in use at home and at work

Transport Use

‘Disposable’ lifestyles

‘Food’ and ‘Product’ miles

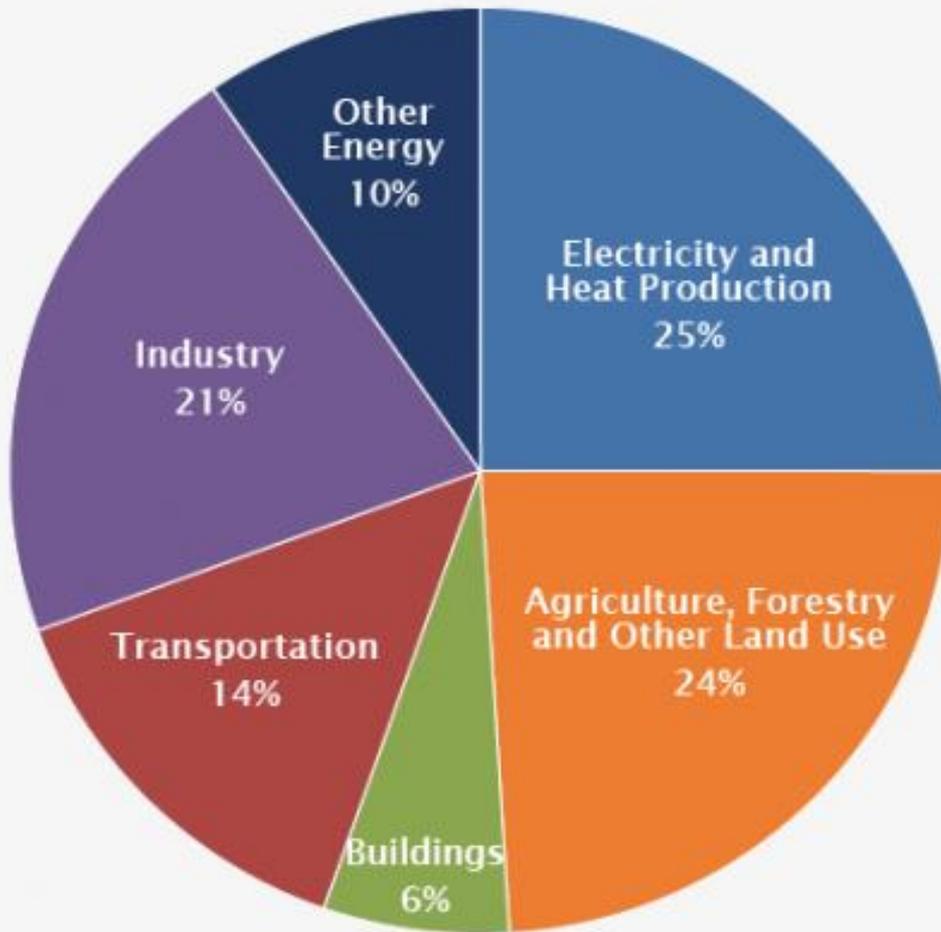




Summarise today's learning in a 240 character tweet in the 4 lines at the bottom of your page OR write two questions that someone could ask you to check if this content has been mastered!

Homework

Global Greenhouse Gas Emissions by Economic Sector



1. Which sector contributes the most GHGs?
2. How does the transportation sector use fossil fuels?
3. How can use of electricity at home sometimes be wasteful?
4. Describe two ways farming releases greenhouse gases.
5. How might the % on the pie-chart change for an AC? Explain your thinking!
6. How might the % on the pie-chart change for an LIDC? Explain your thinking!