What is the Quaternary period?

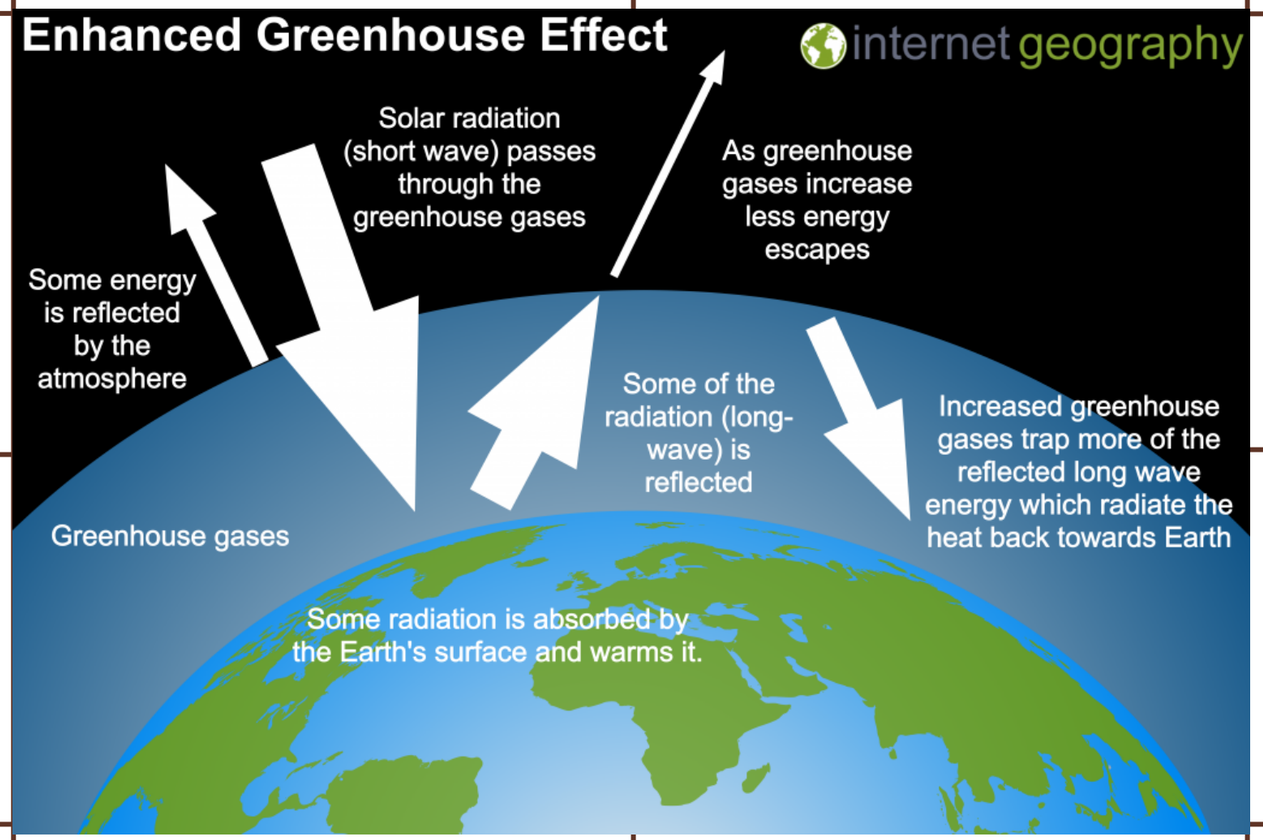
Define:
Glacial:

Interglacial:

Give three impacts of the Little Ice Age.

What is the enhanced greenhouse effect?

What is climate change?



Identify the 4 main natural causes of climate change.

Identify four sources of evidence for natural climate change?

Identify the four main human activities that produce greenhouse gases that cause the enhanced greenhouse effect.

Explain how agriculture has contributed to the enhanced greenhouse effect.

How does transport contribute to the enhanced greenhouse effect?

Identify two negative environmental effects of climate change.

Identify two negative social effects of climate change.

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The Quaternary period is the past 1.8 million years of the world's history.

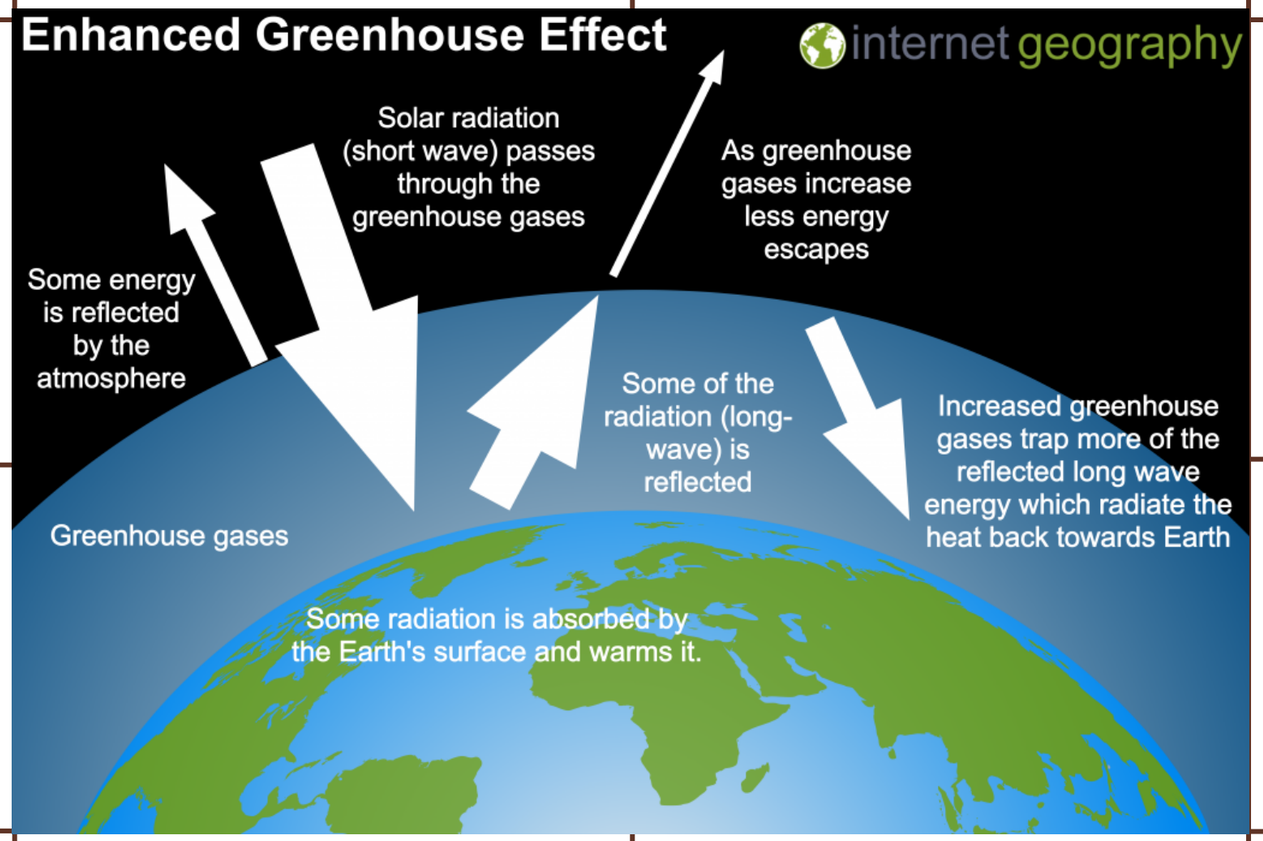
Glacial - is an interval of time (thousands of years) within an ice age that is marked by colder temperatures and glacier advances

Interglacial - are periods of warmer climate between glacial periods.

- The Baltic Sea froze over in winter, as did rivers across Europe, including the Thames.
- Sea ice reached as far south as Iceland.
- Colder and longer winters, reducing the growing season by several weeks.
- Widespread crop failure and famine.
- Social unrest and revolt occurred due to an increase in the price of grain.
- In the Alps and norther Europe, glaciers advanced, destroying towns and farms in the process.

The enhanced greenhouse effect is the impact on the climate from the additional heat retained due to the increased amounts of carbon dioxide and other greenhouse gases that humans have released into the earths atmosphere since the industrial revolution.

Climate change is a long-term, large-scale change in the planet's average temperatures and weather patterns.



Natural causes of climate change:
Orbital changes / Milankovitch cycles
Solar variation
Volcanic activity
Asteroid collisions

- Ice and sediment cores indicate a higher concentration of greenhouse gases and higher temperatures
- Temperature records
- Tree rings indicate a warmer, wetter climate recently
- Pollen analysis
- Historical sources such as paintings, diaries and documentary evidence

- Industry
- Transport
- Energy
- Farming

Livestock, especially cattle, produce methane as part of their digestion. Almost one-third of emissions from agriculture originate from cattle. An increase in rice production due to growing populations in Asia has also seen an increase in the production of methane.

Most motorised transport use fossil fuels to power them. Burning fossil fuels releases carbon dioxide into the atmosphere adding to the enhanced greenhouse effect.

Environmental
- Increased drought in areas such as sub-Saharan Africa and Mediterranean regions leading to loss of habitat
- Sea level rise increases flooding and coastal erosion
- Ice melts so wildlife that depends on it suffer e.g. polar bears & penguins
- Increase in forest fires, pests and disease leading to loss of habitats
- Warm rivers will affect marine wildlife
- Weather will become more extreme causing an increase in flooding

Social
- Increased risk of diseases such as skin cancer and heat stroke due to temperature increase
- Winter related deaths decrease due to milder temperatures
- Drought reduces food and water supplies, especially in sub-Saharan Africa and water shortages in south-east England
- Increased flood risk close to rivers and coast
- Difficulty getting home and contents insurance in areas at risk of flooding
- New jobs in prediction and protection

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