

LEARNING ABOUT...

Climate Change

EVIDENCE

Shorter periods of water freezing in lakes and rivers.

Decrease in the extent of permafrost (permanent ice cover on the surface grounds levels in very cold areas).

Rising ground temperatures.

Earlier leaf dropping or flowering of plants.

Changes in wildlife migrations.

SCIENTIFICALLY OBSERVED CHANGES

Rising sea levels around the world

Reduction in the coverage of snow and ice.

Changes in precipitation levels

Increase in forest fires.

"THE CLIMATE IS CHANGING. SO SHOULD WE." GRETA THUNBERG

GLOBAL WARMING

Since the Industrial Revolution, human activities have caused, both directly and indirectly, the significant increase in Greenhouse Gases (GHG) in the atmosphere.

CAUSES

GREENHOUSE GASES

The greenhouse effect is the process by which the absorption and emission of infra-red radiation by the gases in a planet's atmosphere heat up their internal atmosphere and the surface.

AEROSOLS AND SOOT

Global dimming is a gradual reduction in the amount of direct irradiance on the Earth's surface. The main cause of this dimming is thought to be solid and liquid particles known as aerosols.

SOLAR ACTIVITY

Since 1978, radiation from the Sun have has measured accurately using satellites. These measurements indicate that the emissions from the Sun haven't increased since 1978, which means that the global warming over the last 30 years cannot be attributed to an increase in the amount of solar energy that reaches Earth.

VARIATIONS IN THE EARTH'S ORBIT

The tilt of the Earth's axis and the shape of its orbit around the sun vary slowly over tens of thousands of years and are a natural source of climate change by modifying the seasonal and latitudinal distribution of insolation.

IN THE CLASSROOM...

CLIMATE CHANGE

ANSWER THE QUESTIONS

1. What's climate change?

2. Mention some causes and evidence

3. State the causes of global warming

-
-
-

TRUE OR FALSE

Permafrost is the hardening and resistance of the surface layer of ice in cold regions.

Climate changes influences the migrations of animal species.

Emissions of radiation from the sun have increased since 1978.

Aerosols are the main cause of global dimming.
