WHAT IS CLIMATE CHANGE?

The climate on earth has always been changing, but due to human activity it is currently changing at an **accelerated rate**.

Climate change describes long-term shifts in temperatures and weather patterns, in particular linked to human-induced changes.

Over most of the lifetime of Earth, this change has been natural, leading to ice ages and warm periods alternating over earth's history.

Historical climate can be measured by evaluating carbon deposits from rock or sediment drillings, via ice or coral samples and even by examining tree rings.

Life on earth has flourished in both, cold and warm periods, as species tend to adapt to climate change. Since the Industrial Revolution however, human activities, primarily the burning of fossil fuels and deforestation, have become the main driver of climate change. The emission of carbon dioxide and other greenhouse gases is trapping increasing amounts of heat in the earth's atmosphere and oceans. This has caused global heating at a rate well beyond the normal climate variability.

The speed of this change is beyond the natural and human capacity to cope, leading to a significant loss in biodiversity and to water, food, and energy insecurities.

DID YOU KNOW?

Earth has already warmed by more than 1 degree C compared to pre-industrial levels.

CLIMATE SCIENCE LITERACY

IN SUPPORT OF THE **SUSTAINABLE DEVELOPMENT GOALS**

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