



Understanding Climate Change

What is Climate Change?

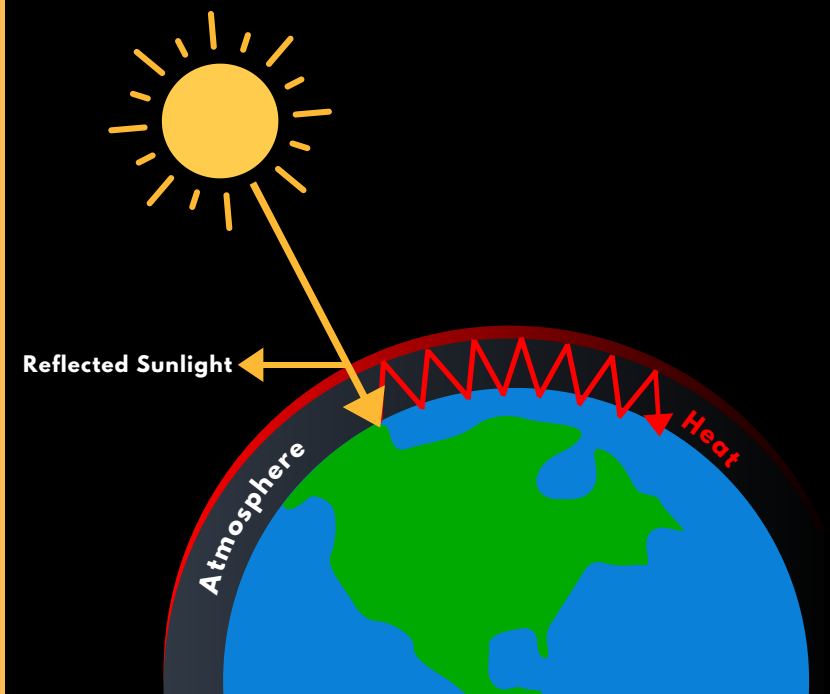
Climate change refers to a significant shift in the measures of climate (such as temperature, precipitation and wind patterns), lasting for an extended period of time.

While the Earth's climate is naturally influenced by solar energy, ocean tides and land cover, changes in the climate over the last century are due primarily to human influences.¹

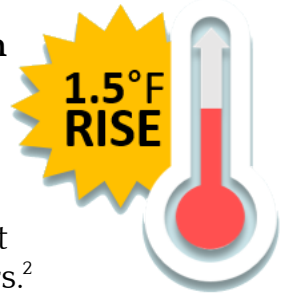
The Greenhouse Effect

Carbon dioxide and other gases in the atmosphere trap heat, **warming** the Earth.

Adding more greenhouse gases to the atmosphere exacerbates the greenhouse effect, making Earth's surface and lower atmosphere even **warmer**.



The Earth's average temperature has risen by 1.5 degrees Fahrenheit over the past century and is projected to rise up to 8.6 degrees Fahrenheit over the next 100 years.²



Small changes in the average temperature of the planet can translate to large and potentially dangerous shifts in climate and weather. This change in temperature is largely due to human activities, such as the burning of fossil fuels, transportation and deforestation.

Burning fossil fuels releases large amounts of carbon dioxide (CO₂) into the atmosphere. Carbon dioxide is the most abundant greenhouse gas. These gases trap heat in the atmosphere and contribute to climate change.



Transportation is the No. 1 source of greenhouse gas emissions in New Jersey.³

Learn what you can do to help stop climate change:
www.nj.gov/dep/climatechange/action.html



1. U.S. Global Change Research Program (USGCRP). (2017). *Climate Science Special Report*. Retrieved from science2017.globalchange.gov/downloads/CSSR2017_FullReport.pdf
2. The Intergovernmental Panel on Climate Change (IPCC). (2013). *Climate Change 2013: The Physical Science*. Retrieved from www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf
3. New Jersey Department of Transportation (NJDOT). (2015). *Public Roadway Mileage and Vehicle Miles Traveled*. Retrieved from www.state.nj.us/transportation/refdata/roadway/vmt.shtm

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