

Climate Change Glossary of Terms: Variables you might investigate

Variable	Student-Friendly Definition	Common Units
CO₂ Concentration	How much carbon dioxide gas is in the air. Higher levels can trap more heat in Earth's atmosphere.	parts per million (ppm)
Temperature Anomaly	How much warmer or cooler a place is compared to a "normal" or average temperature over time	°C (degrees Celsius)
Sea Ice Extent	How much of the ocean surface is covered by sea ice at a given time	million km ²
Sea Level	How high the ocean is compared to a baseline level; rising sea levels can lead to flooding	millimeters (mm) or centimeters (cm)
Precipitation Totals	How much water falls from the sky over a period of time	millimeters (mm) or inches
Wildfire Acreage	How much land is burned by wildfires in a given time period	acres or hectares
Global Average Temperature	The average temperature of the entire planet over time	°C
Glacier Mass / Size	How much ice glaciers have; shrinking glaciers indicate warming	gigatons or km ²
Ocean Temperature	How warm the ocean water is; oceans absorb a lot of Earth's heat	°C
Carbon Emissions	The amount of carbon dioxide humans add to the air (from cars, factories, etc.)	metric tons
Drought Index	A measure of how dry an area is over time	index (no units)
Hurricane Frequency	How often hurricanes occur in a given time period	count per year