A cheat sheet for the climate terms being used at COP26

From 'carbon capture' to 'hydrofluorocarbons,' these are the terms you need to know as climate negotiations in Glasgow unfold

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Adaptation: An adjustment to life as the climate changes. That includes modifying behaviors or systems in the face of shifting temperatures, sea levels, precipitation and other weather and climate patterns. A recent study found that at least 85 percent of the world's population has already been affected by climate change. **[This separate WAPO study says that more than 4/5 of the global land population has experienced climate change enhanced weather events,]**

Anthropocene epoch: An unofficial unit of geologic time, from the Greek "anthropo," meaning "man" or "human being," and "cene," meaning "new." A group of geoscientists suggests that humans have altered the Earth so extensively that sometime circa 1945-1964, we moved into this new geological epoch.

Biodiversity: A contraction of "biological diversity," this is a term that refers to the variety of life on Earth. Biodiversity is trending downward, with a 2019 U.N. report calling the decline "unprecedented" and noting that 1 million species are threatened with extinction.

Carbon capture and storage (CCS): When greenhouse gas emissions — particularly carbon dioxide — are captured, transported and stored instead of being released into the atmosphere. Although the technology remains relatively nascent, it is thought to be a key toward achieving net-zero emissions targets. The world's largest carbon capture plant opened this year in Iceland.

Carbon dioxide: A naturally occurring gas that is also released during the burning of fossil fuels. It's a heat-trapping greenhouse gas that contributes to climate change. Carbon dioxide concentrations in the atmosphere have already reached the highest levels in recorded human history, levels that scientists say haven't been seen in 2 million years.

Carbon sink: Anything that absorbs more carbon from the atmosphere than it releases. Common examples include peatland, permafrost and forests. But carbon sinks aren't permanent — parts of the Amazon rainforest, for instance, have degraded to the point that they are actually releasing more carbon than they can absorb.

Climate: The average weather in a particular region over a long period. The World Meteorological Organization standard of 30 years is typically used to establish what are known as climate normals.

Updates on the COP26 climate conference in Glasgow
Climate change: The long-term change in average weather in a region — reflected in rainfall, temperatures and other weather systems. The latest Intergovernmental Panel on Climate Change report said that evidence for human-caused climate change is "unequivocal."

Climate crisis or climate emergency: Terms that some use relatively interchangeably with "climate change" as a way of emphasizing the severity of the issue.

Conference of the Parties: Annual gathering of countries and entities that agreed to the 1992 United Nations Framework Convention on Climate Change to discuss next steps to combat climate change. The first COP convened in 1995 and has taken place every year since, with the exception of 2020, when the COP was postponed because of the coronavirus pandemic. This year's rescheduled summit in Glasgow marks the 26th COP — hence the moniker COP26.

Fossil fuel: Combustible fuels that formed over geologic time scales from decaying plant and animal matter. Common examples include oil, coal and natural gas. When burned, fossil fuels produce greenhouse gases that contribute to climate change. In recent years, environmental activists have pushed entities to divest from fossil fuel — a move Harvard University and others have taken.

Global warming: The warming of the Earth's climate system since preindustrial times (1850 to 1900), which is driven primarily by human activities — especially the burning of fossil fuels. The United Nations estimates

that the world has already warmed 1 degree Celsius (1.8 degrees Fahrenheit) and could pass the 1.5-degree Celsius mark as early as the 2030s. Parts of the world have already seen more than 2 degrees Celsius of warming.

Greenhouse gases and greenhouse effect: When the sun beats down on Earth, the planet radiates energy back toward space. But Earth's atmosphere includes gases that trap some of that heat and prevent it from escaping — acting like the glass walls of a greenhouse.
These heat-trapping gases are known as "greenhouse gases," perhaps the best-recognized of which is carbon dioxide. But there's also methane, nitrogen oxide, water vapor and a suite of fluorinated gases, among others. Greenhouse gases are naturally occurring and in many ways beneficial. According to NASA, Earth's surface would be about 60 degrees Fahrenheit cooler without them.

But human actions, primarily the burning of fossil fuels, have added greenhouse gases to the atmosphere at a rate that is unprecedented in the history of our species. Concentrations of these gases are almost 50 percent higher than they were just a few centuries ago. This means the atmosphere is trapping much more heat, and Earth is warming up faster than people and ecosystems can adapt.

You asked: What can I do as a teenager to stop climate change?
Hydrofluorocarbons: A set of powerful, man-made greenhouse gases that are commonly used as refrigerants. The chemicals were introduced in the 1990s to replace ones that were depleting the ozone. The Environmental Protection Agency recently established a program to cut the use and production of HFCs by 85 percent over the next 15 years.

Intergovernmental Panel on Climate Change (IPCC): The U.N. body designated with "assessing the science related to climate change." The IPCC releases periodic reports on climate change, including its latest in August, which found that humans have pushed the climate into "unprecedented" territory.

Methane: A potent, short-lived greenhouse gas. When released directly into the atmosphere instead of being burned first, it has more than 80 times the warming potential of carbon dioxide over a 20-year period. Methane is the primary component of natural gas, which research has shown is leaking out of production and distribution systems at vastly underreported rates.

Mitigation: To reduce climate change, particularly by minimizing greenhouse gas emissions into the atmosphere. Getting countries to curb emissions is a central aim of the United Nations Framework Convention on Climate Change — but even the United Nations acknowledges that current pledges are far too meager.

Nationally determined contributions: Core to the 2015 Paris agreement, these are each country's nonbinding plans for reducing greenhouse gas emissions and taking other climate actions, such as adaptation measures.

Net-zero emissions: When human emissions of greenhouse gases are balanced out completely by human removal of greenhouse gases from the atmosphere. Often set as a target over a specific time. President Biden, for example, has a goal of reaching net-zero carbon emissions by 2050.

Ozone: A highly reactive gas made up of three oxygen atoms, ozone can be found in both the lower (troposphere) and upper (stratosphere) atmospheres. Stratospheric ozone is known as "good" ozone because it helps block harmful ultraviolet light from reaching Earth, but there are holes in this ozone layer (such as the one over the North Pole). Tropospheric ozone, often known as "smog," is considered harmful to human health.

A recipe for fighting climate change and feeding the world
Permafrost: Ground that remains frozen (below 32 degrees Fahrenheit or 0 degrees Celsius) for at least two years straight. Permafrost acts as a carbon sink, but when it thaws it can release greenhouse gases back into the atmosphere. Thawing permafrost in Siberia is leaving millions on unstable ground.
Resilience: The capacity for a community, environment or other system to prevent, withstand, respond to and recover from a disturbance or threat — in this context, climate change.

Sea level rise: An increase in the base level of oceans and seas due to climate change.
Sea level rise is location dependent and can vary widely. The United Nations says that between 1901 and 2018, the global average sea level rose 0.2 meters (7.9 inches). By the end of that period, it was rising about an eighth of an inch more annually. In worst-case scenarios, sea level rise could approach 2 meters (6.56 feet) by 2100.

Short-lived climate pollutants (SLCPs): Compounds that have relatively short lifetimes in the atmosphere but can have powerful climate and environmental impacts. Common SLCPs include hydrofluorocarbons, methane, tropospheric ozone and black carbon.

Tipping point: The point — or points — of "no return," after which certain changes caused by warming become irreversible. A 2019 paper in the journal Nature identified nine climate tipping points, ranging from ice sheet collapse to large-scale coral reef die-off.

United Nations Framework Convention on Climate Change (UNFCCC): A U.N. entity that describes itself as "tasked with supporting the global response to the threat of climate change." It was established in 1992, after the UNFCCC was nearly universally adopted (197 parties, including all U.N. member states).

Weather: Short-term atmospheric phenomena such as temperature, precipitation, humidity and wind. Individual weather events — for example, a snowstorm or heat wave — are not necessarily signs of climate change. However, warming makes certain kinds of weather extremes more likely. The latest IPCC report found that climate change is intensifying hurricanes, lengthening droughts and making wildfires more severe. Today's children will live through three times as many disasters as their grandparents if the world continues to warm.

Sarah Kaplan and Steven Mufson contributed to this report.