## Unit 1

### Lesson 1.1

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| **Term** | **Definition** | **Example Sentence** |
| climate change | Changes in the measures of Earth’s climate over a long period of time including weather, precipitation, and temperature patterns. | Rising global temperatures due to climate change are causing more frequent and intense extreme weather events, such as hurricanes and heatwaves. |
| fossil fuels | Natural carbon-rich fuels that are formed over long periods of time and release greenhouse gases when burned. | Since 1750, the burning of fossil fuels has added more and more carbon dioxide to the atmosphere, rapidly warming the planet and causing climate change. |
| greenhouse gases | Gases that trap heat in Earth’s atmosphere. | Greenhouse gases, such as carbon dioxide, methane, and nitrous oxide, trap heat from the Sun inside Earth’s atmosphere. |
| parts per million (ppm) | A unit of measurement used to express very small concentrations of a substance within a larger mixture, often used for measuring gases like carbon dioxide (CO₂) in the atmosphere. | In June 2023, the concentration of carbon dioxide (CO2) in Earth’s atmosphere reached 424 parts per million (ppm). |
| temperature anomaly | A way of measuring the increase or decrease in temperature in relation to a baseline average. | This chart shows both temperature anomaly and carbon dioxide atmospheric concentration over the last 800,000 years. |

### Lesson 1.2

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| **Term** | **Definition** | **Example Sentence** |
| disinformation | False information deliberately spread to mislead, either by influencing public opinion or obscuring the truth. | Disinformation about climate change is often spread through misleading claims, such as exaggerating scientific uncertainty. |
| greenwashing | When a company exaggerates or falsely claims to be more sustainable than it actually is. | Greenwashing is sometimes hard to identify because companies work hard to disguise it. |
| fossil fuels | Natural carbon-rich fuels that are formed over long periods of time and release greenhouse gases when burned. | Since 1750, the burning of fossil fuels has added more and more carbon dioxide to the atmosphere, rapidly warming the planet and causing climate change. |
| Intergovernmental Panel on Climate Change (IPCC) | An international organization that assesses the science of climate change. | The Intergovernmental Panel on Climate Change (IPCC) says that “Scientific evidence for the warming of the climate system is unequivocal.” |
| misinformation | False or inaccurate information. | Misinformation can lead to misunderstanding climate solutions, their effectiveness, and their drawbacks. |

### Lesson 1.3

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| **Term** | **Definition** | **Example Sentence** |
| **optimism** | A sense of hope and confidence in the future. | Optimism inspires people to innovate and drives people to take risks—investing money and time in the hopes of making a better future. |
| **perspective** | An individual’s or group’s point of view on or attitude toward something. | Our perspective is crucial when it comes to tackling climate change. |
| **climate doomer** | Someone who, when it comes to climate change, believes either that fear will inspire action or that there’s no point in acting because it’s already too late to solve climate change. | Climate doomers might think otherwise, but there’s a lot we can do to mitigate climate change. |
| **climate optimist** | Someone who, when it comes to climate change, believes that hope is a better motivator than fear and that we must focus on more than the bad news of climate change. | Climate optimists believe we can make a difference if we act quickly and get our priorities in order. |

### Lesson 1.4

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| **Term** | **Definition** | **Example Sentence** |
| **anthropogenic** | Caused by human activity. | Anthropogenic carbon dioxide emissions must quickly decline if we want to avoid the worst impacts of climate change. |
| **net zero** | Achieving a balance between the amount of greenhouse gases emitted into the atmosphere and the amount removed. | Specifically, the IPCC report called for global greenhouse gas emissions to reach “net zero” by 2050. |
| **emissions** | The release of substances, such as gases, particles, or radiation, into the air, water, or soil. | The countries with the highest CO₂ emissions per person are wealthy countries—like Canada and Australia—or oil-producers like Qatar and Saudi Arabia. |
| **contemporary** | Existing or happening in the present; modern, new. | Many contemporary scientists are developing innovation solutions to address climate change. |
| **per capita** | Per person. A measurement often used to compare metrics between countries or cities while accounting for differing population sizes. | Per capita emissions are much lower in populous countries, such as India, China, and Nigeria. |