

Gottesman Hall of Planet Earth

BACKGROUND FOR EDUCATORS

Overview of Student Worksheets

Using [worksheets](#), students visit exhibits in the hall to analyze the factors and complex interactions that determine local weather patterns, influence climate, and impact ecosystems on a local and global scale.

Students will explore Earth's climate system and the impacts of changing climate. Students will explore the **investigation questions**: How human activity is influencing Earth's climate system?

Extension Ideas

Back in the classroom, students apply what they learned about Earth's climate system and local impacts . Students research the 2023 Canadian wildfires featured in the “Before and After” section of the Climate & Climate Interactive Wall: how did feedback in the global climate system lead to smoke from the Canadian wildfires coming to New York City? What were the local impacts of the wildfire smoke in New York City?

Students work in groups to brainstorm possible mitigation strategies (such as the strategies in the “Climate Change in New York City” section of the Climate & Climate Interactive Wall) that would either address the feedback affecting climate systems on a global scale, or reduce the impact of wildfire smoke on a local level.

Correlation to Standards

This activity supports the following Next Generation Science Standards:

Disciplinary Core Ideas	ESS3.D: Global Climate Change Through computer simulations and other studies, important discoveries are being made about how the ocean, the atmosphere, and the biosphere interact and are modified in response to human activities. Though the magnitudes of human impacts are greater than they have ever been, so too are human abilities to model, predict, and manage current and future impacts.
Crosscutting Concepts	Stability and Change Change and rates of change can be quantified and modeled over very short or very long periods of time. Some system changes are irreversible.
Science and Engineering Practices	Analyzing and Interpreting Data Analyze data using tools, technologies, and/or models in order to make valid and reliable scientific claims or determine an optimal design solution.