

U.S. DEPARTMENT OF EDUCATION INFRASTRUCTURE AND SUSTAINABILITY NOTES



The Education Sector in Climate Action

Climate action in the education sector generally focuses on solutions through the strategies of mitigation, adaptation, education, and advancing equity.¹

How the Education Sector is Impacted by Climate Change

As the effects of climate change intensify, schools are facing damage to facilities and encumbered operations, and events that force school closures and curtail learning.² Climate change disproportionately affects schools with historically underserved communities, which experience these effects at a higher rate and with a heavier burden.³ To address climate change, schools are working to both **mitigate** further impacts and **adapt** to the current and expected changes.

Climate Mitigation	Climate Adaptation
Climate Mitigation, as defined by the United Nations, ⁴ refers to measures to reduce or prevent greenhouse gas emissions. Schools can effectively mitigate their greenhouse gas emissions by switching to renewable energy sources in powering buildings and vehicles, encouraging active transportation, improving land management practices, and reducing waste sent to landfills.	Climate Adaptation ⁵ includes strategies that aim to prepare for and react to the current and future impacts of climate change. Schools can adapt by updating guidelines and planning for school disruptions; changing facilities and grounds practices to prepare for wildfires, heat, floods, or other extreme weather conditions; and partnering with local and state actors to prepare for and recover from climate-related disasters.

Student Learning and Community Benefit from Climate Action

Although climate change presents a risk of disrupting learning, there are also opportunities to connect climate change to all subject areas, prepare students for college and career pathways in the green economy, and engage in civic learning.⁶ Research has shown that solutions-oriented education regarding climate can support students experiencing climate change related anxiety.⁷ By adopting climate solutions, schools can serve as role models for climate action and trusted sources of

¹ Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. 2023. "Chapter 1: Overview. Fifth National Climate Assessment". U.S. Global Change Research Program, Washington, DC, USA. <https://doi.org/10.7930/NCA5.2023>.

² Reidmiller, David R., Christopher W. Avery, David R. Easterling, Kenneth E. Kunkel, Kristin L.M. Lewis, Thomas K. Maycock, and Brooke C. Stewart, eds. 2018. "Impacts, Risks, and Adaptation in the United States: The Fourth National Climate Assessment, Volume II." <https://doi.org/10.7930/nca4.2018>.

³ Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. 2023. "Chapter 1: Overview. Fifth National Climate Assessment". U.S. Global Change Research Program, Washington, DC, USA. <https://doi.org/10.7930/NCA5.2023>.

⁴ Environment, U. N. 2017. "Mitigation." UNEP - UN Environment Programme. September 14, 2017. <https://www.unep.org/explore-topics/climate-action/what-we-do/mitigation>.

⁵ US EPA, OA. 2021. "Climate Adaptation and EPA's Role." www.epa.gov. September 17, 2021. <https://www.epa.gov/climate-adaptation/climate-adaptation-and-epas-role>.

⁶ "K12 CLIMATE ACTION PLAN." 2021. <https://www.thisisplaneted.org/img/K12-ClimateActionPlan-Complete-Screen.pdf>.

⁷ Cianconi, Paolo, Sophia Betrò, and Luigi Janiri. 2020. "The Impact of Climate Change on Mental Health: A Systematic Descriptive Review." *Frontiers in Psychiatry* 11 (74): 1–15. <https://doi.org/10.3389/fpsy.2020.00074>.

information for communities. In addition, school facilities often have a critical role in community emergency planning as centers for accessing basic services, including medical care and food. Organizations across the nation are developing overarching frameworks for climate action in education, such as the K12 Climate Action Plan offered by the Aspen Institute, which includes strategies for both mitigation and adaptation.⁸

Federal Support to Schools in Climate Action

The most significant sources of federal support for schools to tackle both climate mitigation and adaptation are through the [Bipartisan Infrastructure Law](#) and [Inflation Reduction Act](#). These appropriations represent historic investments in infrastructure and climate action across the United States, spanning many sectors that directly affect schools. This includes transportation (electric buses), clean energy infrastructure (renewable energy incentives, energy efficient retrofits, electric vehicle charging), and resilience (preventative strategy and recovery from environmental disasters). These funding and [tax incentive programs](#) are administered through several federal agencies, including the U.S.



AERIAL VIEW OF THE MILLERSVILLE UNIVERSITY (PA) LOMBARDO WELCOME CENTER SOLAR ARRAY.

Department of the Treasury, U.S. Department of Energy, and U.S. Environmental Protection Agency.

In 2021, the U.S. Department of Education adopted its first [Climate Adaptation Plan](#). The Department's Climate Adaptation Plan looks at every available tool at its disposal to prioritize equitable access to healthy, safe, sustainable, 21st-century learning environments and sustainability learning that equips students to face the challenges of the future.

Finding More Resources

Did you know that the U.S. Department of Education has a sustainable schools monthly newsletter featuring resources, events, and opportunities? [Sign up](#) today.

⁸ K12 CLIMATE ACTION PLAN.” 2021. <https://www.thisisplaneted.org/img/K12-ClimateActionPlan-Complete-Screen.pdf>.

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