

Climate-Resilient California Schools: A Call to Action

Safeguarding Children's Health and Opportunity to Learn in TK-12

EXECUTIVE SUMMARY

Amid fires, wildfire smoke, extreme heat, and other climate-driven disasters and health hazards, California's leading experts in children's health and education have come together to call for a cost-effective, ten year \$150 billion investment to ensure K-12 public schools can remain open and provide safe and healthy places for California's children to learn and grow. This coalition of more than 50 stakeholders urges state lawmakers to prioritize schools in California's climate action plan, and proposes a path to ensuring every school in the state helps to mitigate both the impacts and the causes of the climate crisis. This is the first comprehensive report on climate-driven impacts on children in CA that addresses the full scope of the problem while laying out an immediately actionable plan.



Context

For children growing up in California today, the impacts of climate change are as close as the air they breathe. And yet, the places where young people spend the majority of their days — California's public school buildings and campuses — remain woefully underprepared for heat, smoke, drought, wildfire, and other extreme weather events that have become increasingly frequent in California's changing climate.

Experts agree California has tremendous work to do in order to keep the state's aging school buildings open, healthy and conducive to learning in the face of our rapidly changing climate. Prolonged time out of school disrupts students' learning, and can affect their mental health, and disrupt their social-emotional development. The evidence is clear from the effect school closures had on students' learning and emotional health during the COVID-19 pandemic. Without swift action to make California's schools more climate resilient, children across the state will continue facing deep and inequitable learning losses and suffer health consequences from learning in facilities poorly equipped to keep children safe.

14 Recommendations

Campus: How we can create healthy, climate-resilient, sustainable school facilities.

Two out of five public school buildings in California are at least 50 years old — built long before we knew anything about the climate crisis. These schools rely on antiquated technologies that are expensive to repair and may create health hazards rather than solve them. To protect students and teachers from climate-related harms and to move schools closer to the State target of net zero emissions, campuses should:

1. Adopt sustainable construction practices;
2. Power schools with solar technology and battery storage;
3. Electrify building energy systems to transition away from fossil fuel dependence;
4. Upgrade heating, ventilation and air conditioning (HVAC) systems to electric heat pumps;
5. Improve the efficiency of water use;
6. Create green schoolyards that increase shade and reduce the presence of asphalt and other impervious surfaces and create a buffer against flooding;
7. Grow food in regenerative schoolyard gardens; and
8. Electrify their school bus fleets.

Community: How we can develop a culture of resilience in and around schools.

Amid the uncertainty of climate change, schools must be places of social-emotional support for students experiencing fear and anxiety. We recommend that district leaders:

9. Staff schools with students' mental health in mind;
10. Respond directly to students' climate anxiety; and
11. Connect students with climate allies and solutions in their communities.

Curriculum: How we can prepare climate-literate leaders for tomorrow's California.

Each generation must prepare the next to live in a world they cannot fully imagine; but, the challenge we face today is extreme. Many of the understandings, skills, and technologies young people will rely on in the future are unknown to us or just emerging. To adapt, innovate and ultimately thrive, our children will need to be climate-literate. We recommend that schools center the study of the environment in education and career preparation.

12. Amplify implementation of environmental & climate education;
13. Expand climate-related Career Technical Education (CTE) pathways; and
14. Enhance teacher education and professional development on climate literacy.

Building a Master Plan

A Master Plan for Sustainable and Climate-Resilient Schools would serve as a guiding light to California's massive TK-12 system and help direct state and local investments and technical assistance to align the education sector with the state's public health and climate mitigation goals. In the last two years, state leaders have dedicated appreciable one-time funds toward school construction and modernization projects. Still, the investment needed to fully modernize all facilities and ensure that every child in California attends a climate-resilient school far outstrips these one-time funds. With the abundance of newly available federal funding through the Inflation Reduction Act and U.S. Department of Energy, now is the time for schools to invest in clean energy improvements to promote student health and learning.

Who We Are

A statewide coalition of nearly 50 stakeholders – including doctors, medical and environmental health researchers, educators, youth and community groups – convened in 2021 to examine the challenges of climate change from the perspective of children's health and education. Findings and ideas from these workshops were developed under the leadership of Stanford University's [Sean N. Parker Center for Allergy and Asthma Research](#), [Stanford Medicine's Center for Innovation in Global Health](#), and [Action Lab for Planetary Health](#), the University of California, Berkeley's [Center for Cities + Schools](#), [Ten Strands](#), and [UndauntedK12](#), with support from the [11th Hour Project](#) of the Schmidt Family Foundation.

To view the full report, visit: <https://www.climatereadyschoolscoalition.org/ourwork/climate-resilient-schools-report> March 2023