

# The Climate Crisis and PSB

---

Is climate change a concern for schools?

Roger Grande  
BHS Social Studies

# Graduate Green petition: *where it began*

**To: Brookline School Committee and school leaders**

**From: BHS Climate and Food Justice club**

We can no more afford to ignore the climate emergency now than we could last month, or last year. It is here, now, and its impacts will only worsen the longer we go without taking collective action. As the Covid-19 pandemic reminds us, we ignore scientific expertise and the rising toll of a crisis at our own peril. Human driven climate change increasingly threatens our physical and mental health, our food system, our democracy, the status of immigrants in our community, our confidence in science and truth, and the gains we have made towards racial and gender justice...

# BHS Student Sustainability Survey, March 2022

## Background & Approach

### BACKGROUND

The data presented in this deck is sourced from the Winter 2022 BHS Student Sustainability Survey. This study was undertaken to support sustainability efforts and climate change initiatives at BHS.

The survey explored a number of areas including:

- Students' global warming acumen and attitudes
- Global warming's impact on their lives both in and out of school
- Their political views and demographic information

### APPROACH

Data were collected via a 21-question online survey, which ran from March 4 to March 9.

A total of 512 BHS students participated in the study and all grades were represented as detailed in the table below.

	Sample size
9th   Freshman	95
10th   Sophomore	124
11th   Junior	197
12th   Senior	98

# Who we spoke to

The majority of survey participants are cisgendered and white, though 1-in-4 are AAPI and 1-in-5 identify as multi-racial.

## DEMOGRAPHICS

### Pronouns

He / him / his



She / her / hers



They / them / theirs / other



### Race

White



Asian / Asian American / Pacific Islander



Latino / Latinx / Hispanic



Black / African American



Other

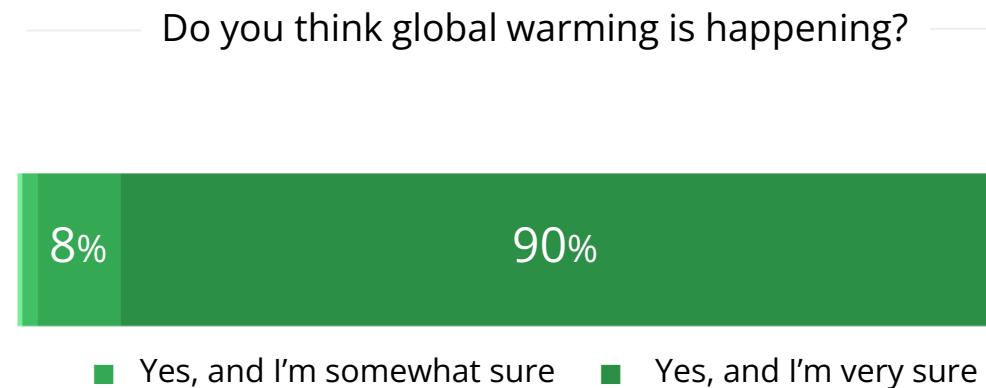


Multi-racial

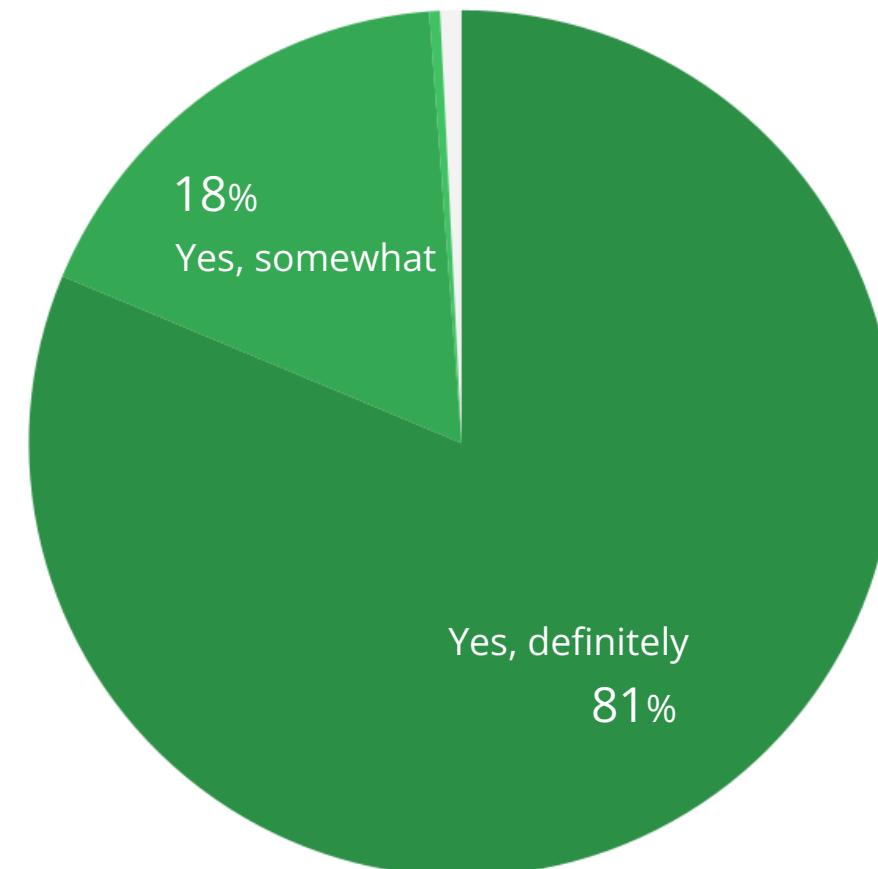


# Nearly all BHS students are confident global warming is happening and 8-in-10 believe humans are responsible

## CLIMATE CHANGE KNOWLEDGE



Do you think global warming is caused by human activities and choices?

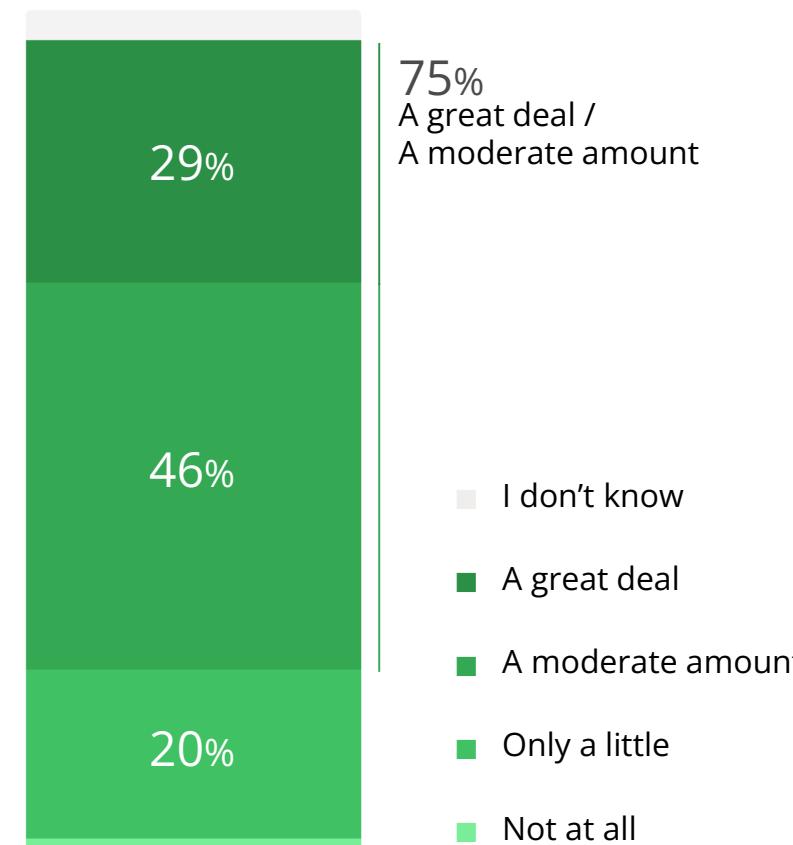


# They also believe climate change's impact is global

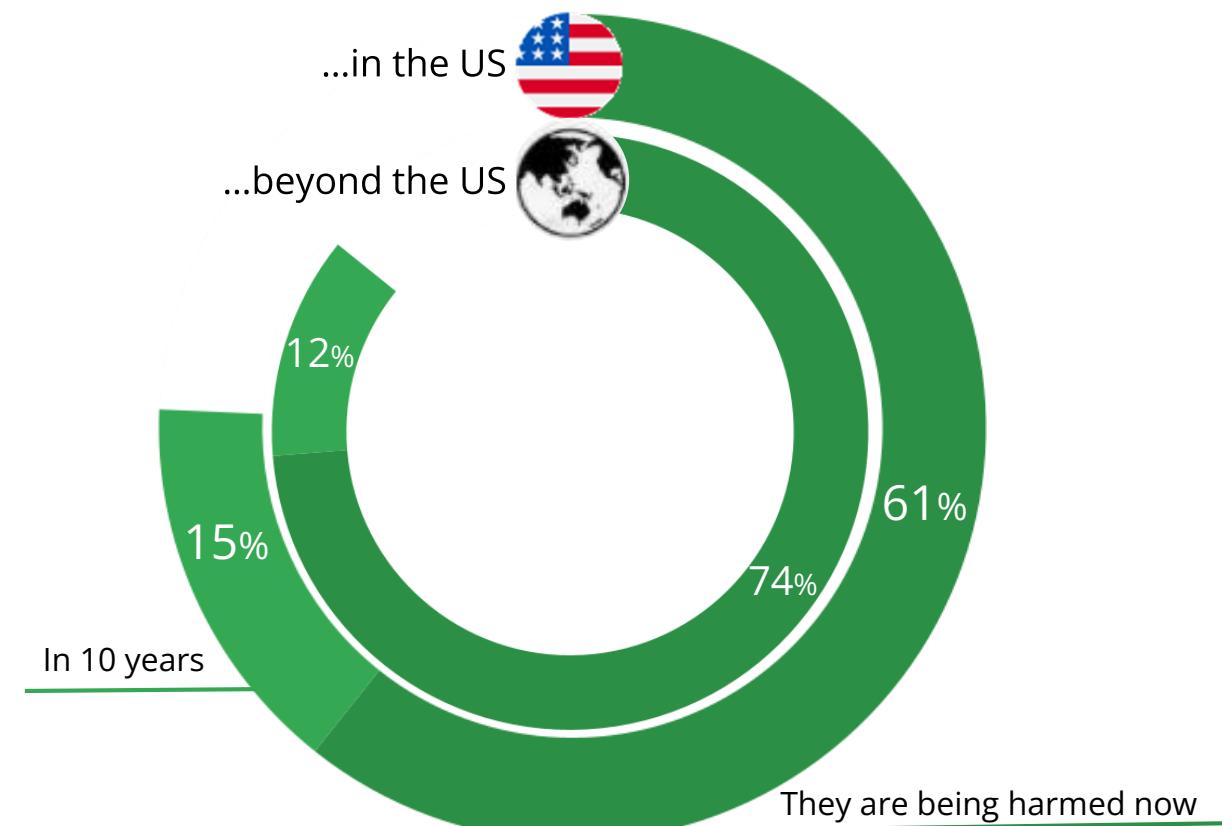
3-in-4 anticipate climate change will cause them at least moderate personal harm. 3-in-4 also believe Americans are already being harmed by climate change's impacts, or will be within 10 years. Even more (nearly 9-in-10) believe that's the case for people outside the US.

## PERCEIVED CLIMATE CHANGE IMPACT

How much do you think climate change will harm you personally?

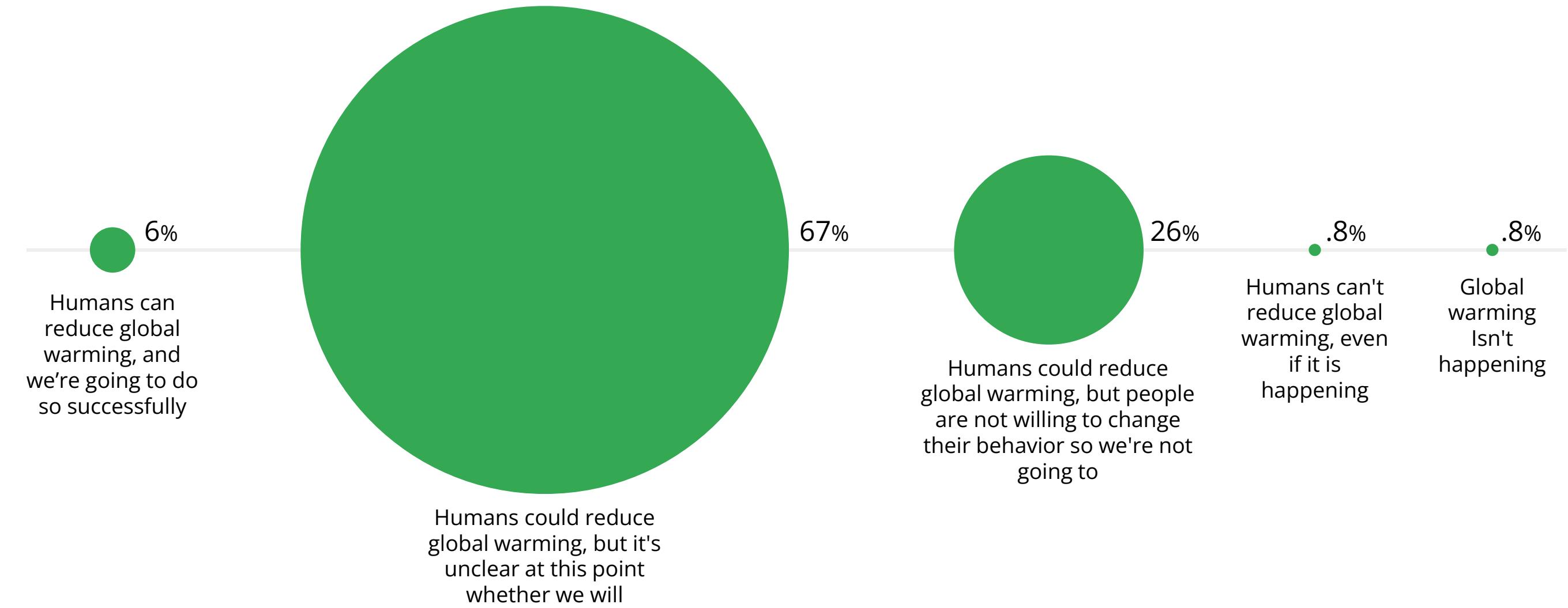


When do you think climate change will start to harm people...?



# Nearly all BHS students are not confident global warming will be stopped

VIEWS ON CLIMATE CHANGE

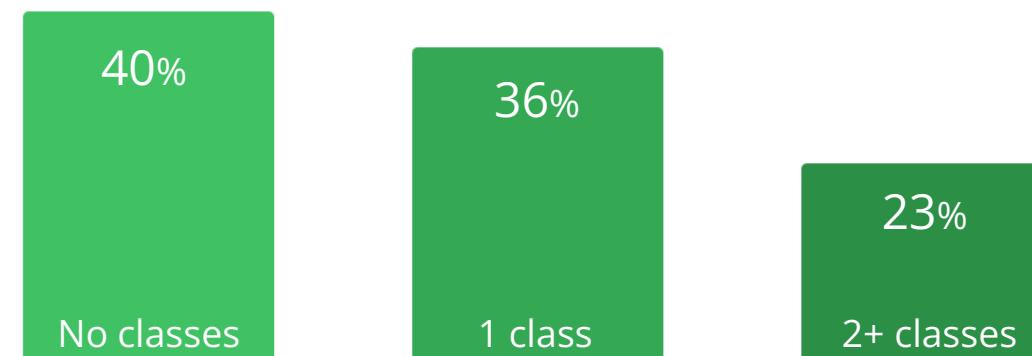


# Demand for climate change education exceeds offerings

Just under a quarter of BHS students report learning about climate change in 2 or more classes, while twice as many would like BHS to require students take climate change classes all four years.

## EXPERIENCE WITH + OPINIONS TOWARD CLIMATE CHANGE EDUCATION

Since you began as a student at BHS, in how many classes have you already learned about climate change at BHS?



Should BHS require that students learn...?

...about climate change in all four years of high school



...skills that prepare them to address & work against climate change & its impacts?



■ Yes ■ No ■ Don't know



OPINION

## **“Why is the Environmental Justice Movement So White?” by Azavia Barsky-Elnour**

March 29, 2022 — 0 Comments



CLASSROOM

## **“How We Compost at School” by Lincoln 7th Graders**

March 29, 2022 — 0 Comments





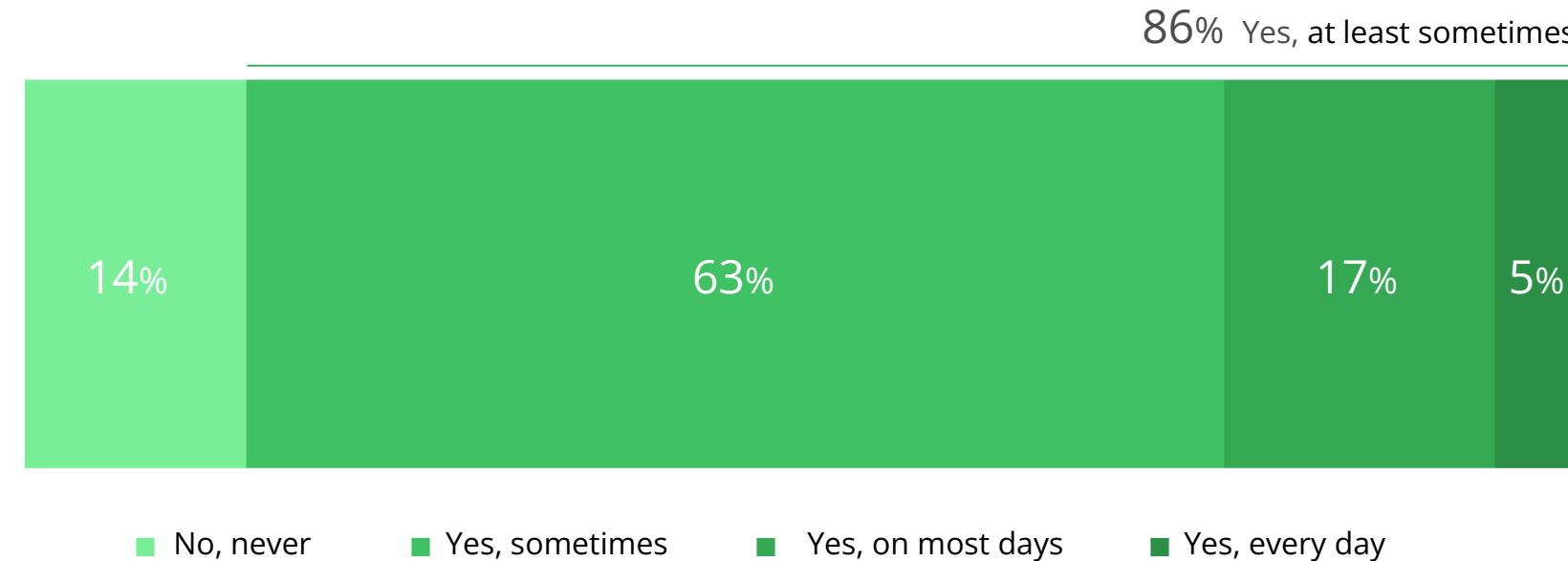
METHANE METHANE



# Nearly 9-in-10 BHS students have thought about climate change and for 1-in-5, it's on their minds “most days”...

## CLIMATE CHANGE'S PRIMACY

In the past month, have you thought about climate change?

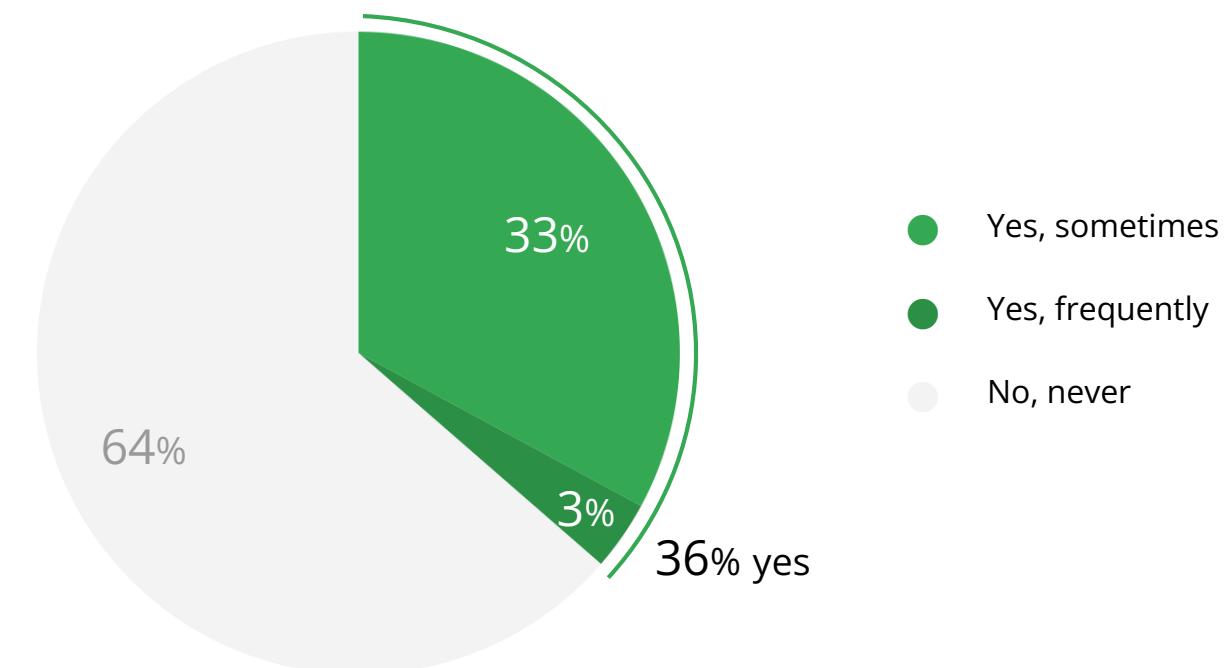


# ...and it's taking a toll

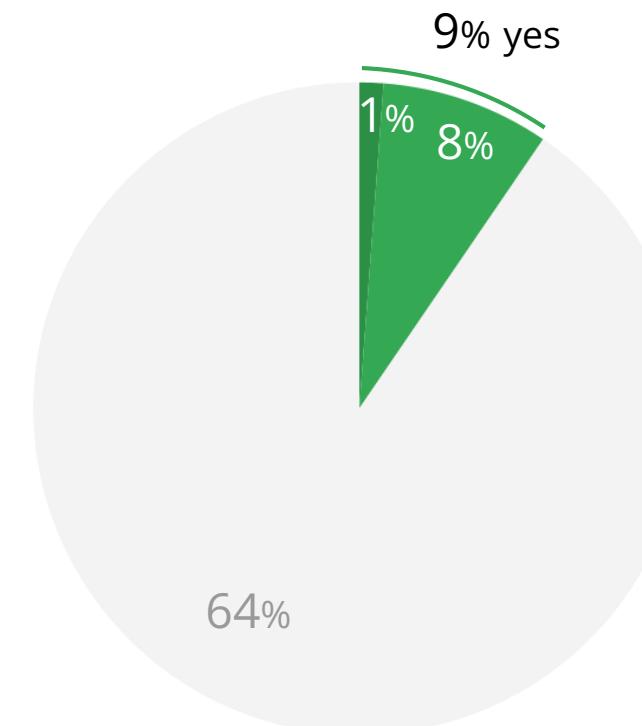
Over 1-in-3 BHS students say climate change negatively impacts their mental health at least sometimes and 1-in-10 report it inhibits their ability to perform normally in school.

## CLIMATE CHANGE'S IMPACT ON MENTAL HEALTH & WELL BEING

In the past month, have you had thoughts or feelings about climate change that negatively impact your mental health or emotional well being, or cause you anxiety or depression?



In the past month, have you had thoughts or feelings about climate change that interfere with your ability to function normally in school?



# Climate change and mental health

MAKING THE CONNECTION:

## Climate Changes Mental Health



Curr Psychiatry Rep. 2018 Apr 11;20(5):35. doi: 10.1007/s11920-018-0896-9.

### The Psychological Effects of Climate Change on Children.

Burke SEL<sup>1</sup>, Sanson AV<sup>2</sup>, Van Hoorn J<sup>3</sup>.

Author information

#### Abstract

**PURPOSE OF REVIEW:** We review recent evidence on the psychological effects of climate change on children, including direct and indirect impacts, and discuss children's psychological adaptation to climate change.

**RECENT FINDINGS:** Both the direct and flow-on effects of climate change place children at risk for mental health problems, including PTSD, depression, anxiety, phobias, sleep disorders, attachment disorders, and substance abuse. These problems can affect children's emotion regulation, cognition, learning, behavior, language development, and academic performance. Children are also at risk for adverse adult mental health outcomes. Children also exhibit high levels of concern over climate change and are more likely than adults to promote well-being and environmental engagement. Both direct and indirect climate change effects can contribute to mental health problems in children. Children in the developing world will suffer the worst impacts. Mental health professionals can help by addressing the psychological consequences of climate change, and researching and implementing approaches to helping children cope with it.

#### FAST FACTS

- More than 40 million adults in the U.S. suffer from a mental illness.
- Victims of natural disasters are at an increased risk of anxiety, depression, PTSD, and suicide.
- 25-50% of people exposed to an extreme weather disaster are at risk of adverse mental health effects.
- Up to 54% of adults and 45% of children report symptoms of

#### BACKGROUND

Mental health encompasses all aspects of well-being. It determines how individuals function within their communities, think, feel, act, and interact. Climate change has a significant impact on mental health. It can lead to depression, anxiety, and other mental health problems. Children are particularly vulnerable to the effects of climate change, especially those from disadvantaged groups who have less access to the land, including indigenous peoples.

#### CASE STUDY: T

**KEYWORDS:** Adolescents; Children; Climate change; Coping; Environmental engagement; Mental health

PMID: 29637319 DOI: [10.1007/s11920-018-0896-9](https://doi.org/10.1007/s11920-018-0896-9)

[Indexed for MEDLINE]



### Global Warming and Violent Behavior

Courtney Plante and Craig A. Anderson

**TAGS:** AGGRESSION | BEHAVIORAL SCIENCE | ENVIRONMENT | INTERGROUP RELATIONS | SOCIOCULTURAL FACTORS | VIOLENCE

Environmental scientists from multiple disciplines have overwhelmingly acknowledged human-driven climate change as fact. Similarly indisputable is the fact that the effects of rising temperatures will be global in scope and resoundingly negative: droughts, coastal city flooding, decreased food production, and extreme weather, to name just a few. What you may not have considered, however, are some of the subtler psychological and social consequences of rapid climate change — including aggression and violent conflict. A growing body of evidence shows that rapid global warming can (and is) increasing violent behavior in three different ways.

### Immediate Effect of Heat Stress on Aggression and Violence

When people get uncomfortably hot, their tempers, irritability, and likelihood of physical aggression and violence increase. This is perhaps best demonstrated in a series of laboratory studies conducted by APS Fellow Craig A. Anderson and his colleagues (Anderson 1989, 2001; Anderson & Anderson 1984, 1996, 1998;

AUTHENTIC  
EDUCATION  
REAL WORLD ENGAGEMENT

EMPOWERMENT AND  
LEADERSHIP  
BUILD A COMMON MISSION

INTERDISCIPLINARY  
DESIGN  
AUTHENTIC CHALLENGES

## EDUCATIONAL OPPORTUNITIES THAT CLIMATE CHANGE PRESENTS: CULTIVATING SKILLS AND RESILIENCE



EQUITY / INCLUSION  
CLIMATE JUSTICE=RACIAL JUSTICE

PROJECT-BASED LEARNING  
COLLABORATE TO SURVIVE

OUTDOOR EDUCATION  
CULTIVATE STEWARDSHIP,  
ENHANCE S.E.L.

AUTHENTIC  
EDUCATION  
REAL WORLD ENGAGEMENT

EMPOWERMENT AND  
LEADERSHIP  
BUILD A COMMON MISSION

INTERDISCIPLINARY  
DESIGN  
AUTHENTIC CHALLENGES

## EDUCATIONAL OPPORTUNITIES THAT CLIMATE CHANGE PRESENTS: CULTIVATING SKILLS AND RESILIENCE



EQUITY / INCLUSION  
CLIMATE JUSTICE=RACIAL  
JUSTICE

PROJECT-BASED  
LEARNING  
COLLABORATE TO SURVIVE

OUTDOOR EDUCATION  
CULTIVATE STEWARDSHIP,  
ENHANCE S.E.L.

AUTHENTIC  
EDUCATION  
REAL WORLD ENGAGEMENT

EMPOWERMENT AND  
LEADERSHIP  
BUILD A COMMON MISSION

INTERDISCIPLINARY  
DESIGN  
AUTHENTIC CHALLENGES

## EDUCATIONAL OPPORTUNITIES THAT CLIMATE CHANGE PRESENTS: CULTIVATING SKILLS AND RESILIENCE



EQUITY / INCLUSION  
CLIMATE JUSTICE=RACIAL  
JUSTICE

PROJECT-BASED  
LEARNING  
COLLABORATE TO SURVIVE

OUTDOOR EDUCATION  
CULTIVATE STEWARDSHIP,  
ENHANCE S.E.L.

AUTHENTIC  
EDUCATION  
REAL WORLD ENGAGEMENT

EMPOWERMENT AND  
LEADERSHIP  
BUILD A COMMON MISSION

INTERDISCIPLINARY  
DESIGN  
AUTHENTIC CHALLENGES

## EDUCATIONAL OPPORTUNITIES THAT CLIMATE CHANGE PRESENTS: CULTIVATING SKILLS AND RESILIENCE



EQUITY / INCLUSION  
CLIMATE JUSTICE=RACIAL  
JUSTICE

PROJECT-BASED  
LEARNING  
COLLABORATE TO SURVIVE

OUTDOOR EDUCATION  
CULTIVATE STEWARDSHIP,  
ENHANCE S.E.L.

AUTHENTIC  
EDUCATION  
REAL WORLD ENGAGEMENT

EMPOWERMENT AND  
LEADERSHIP  
BUILD A COMMON MISSION

INTERDISCIPLINARY  
DESIGN  
AUTHENTIC CHALLENGES

## EDUCATIONAL OPPORTUNITIES THAT CLIMATE CHANGE PRESENTS: CULTIVATING SKILLS AND RESILIENCE



EQUITY / INCLUSION  
CLIMATE JUSTICE=RACIAL  
JUSTICE

PROJECT-BASED  
LEARNING  
COLLABORATE TO SURVIVE

OUTDOOR EDUCATION  
CULTIVATE STEWARDSHIP,  
ENHANCE S.E.L.

EMPOWERMENT AND  
LEADERSHIP  
BUILD A COMMON MISSION

INTERDISCIPLINARY  
DESIGN  
AUTHENTIC CHALLENGES

## EDUCATIONAL OPPORTUNITIES THAT CLIMATE CHANGE PRESENTS: CULTIVATING SKILLS AND RESILIENCE



EQUITY / INCLUSION  
CLIMATE JUSTICE=RACIAL  
JUSTICE

PROJECT-BASED  
LEARNING  
COLLABORATE TO SURVIVE

OUTDOOR EDUCATION  
CULTIVATE STEWARDSHIP,  
ENHANCE S.E.L.

AUTHENTIC  
EDUCATION  
REAL WORLD ENGAGEMENT

EMPOWERMENT AND  
LEADERSHIP  
BUILD A COMMON MISSION

INTERDISCIPLINARY  
DESIGN  
AUTHENTIC CHALLENGES

## EDUCATIONAL OPPORTUNITIES THAT CLIMATE CHANGE PRESENTS: CULTIVATING SKILLS AND RESILIENCE



EQUITY / INCLUSION  
CLIMATE JUSTICE=RACIAL  
JUSTICE

PROJECT-BASED  
LEARNING  
COLLABORATE TO SURVIVE

OUTDOOR EDUCATION  
CULTIVATE STEWARDSHIP,  
ENHANCE S.E.L.

## Graduate Green: an opportunity for PSB

“It’s a magnificent thing to be alive in a moment that matters as much as this one.”

—Katherine Wilkinson, Project Drawdown



# Ayana Johnson

Marine biologist, policy expert, podcast host

June 3, 2020

The Washington Post  
*Democracy Dies in Darkness*

PostEverything • Perspective

Home

Share

544

## I'm a black climate expert. Racism derails our efforts to save the planet.

Stopping climate change is hard enough, but racism only makes it harder

# Graduate Green petition: *where it began*

**To: Brookline School Committee and school leaders**

**From: BHS Climate and Food Justice club**

...We demand that our school leaders:

- Recognize that the core mission of schools is to prepare young people to thrive, as adults, intellectually, emotionally and financially, and that climate change threatens the prospects of young people to achieve those aims;
- Address the demands of students to better understand climate change, cultivate skills to be resilient for a climate-disrupted future, and integrate climate justice with our school system's work to address race and gender equity;
- Declare that climate change is an emergency, and that our School Committee and School Leadership shall take meaningful action by December 31, 2021 to embark upon a system-wide plan for making climate sustainability a core value and practice of our school system at all grade levels. That plan must form a committee that includes educators, students and many other stakeholders and who are charged with preparing a comprehensive set of recommendations and steps forward, including but not limited to curriculum revision, by September 15, 2022.

We want all students and PSB staff, every year, to encounter curriculum and authentic school-wide practices that foster a common purpose so that each student shall 'graduate green.' Our future depends on this.

# Graduate Green petition: *where it began*

**To: Brookline School Committee and school leaders**

**From: BHS Climate and Food Justice club**

...We demand that our school leaders:

- Recognize that the core mission of schools is to prepare young people to thrive, as adults, intellectually, emotionally and financially, and that climate change threatens the prospects of young people to achieve those aims;
- Address the demands of students to better understand climate change, cultivate skills to be resilient for a climate-disrupted future, and integrate climate justice with our school system's work to address race and gender equity;
- Declare that climate change is an emergency, and that our School Committee and School Leadership shall take meaningful action by December 31, 2021 to embark upon a system-wide plan for making climate sustainability a core value and practice of our school system at all grade levels. That plan must form a committee that includes educators, students and many other stakeholders and who are charged with preparing a comprehensive set of recommendations and steps forward, including but not limited to curriculum revision, by September 15, 2022.

We want all students and PSB staff, every year, to encounter curriculum and authentic school-wide practices that foster a common purpose so that each student shall 'graduate green.' Our future depends on this.

# Graduate Green petition: *where it began*

**To: Brookline School Committee and school leaders**

**From: BHS Climate and Food Justice club**

...We demand that our school leaders:

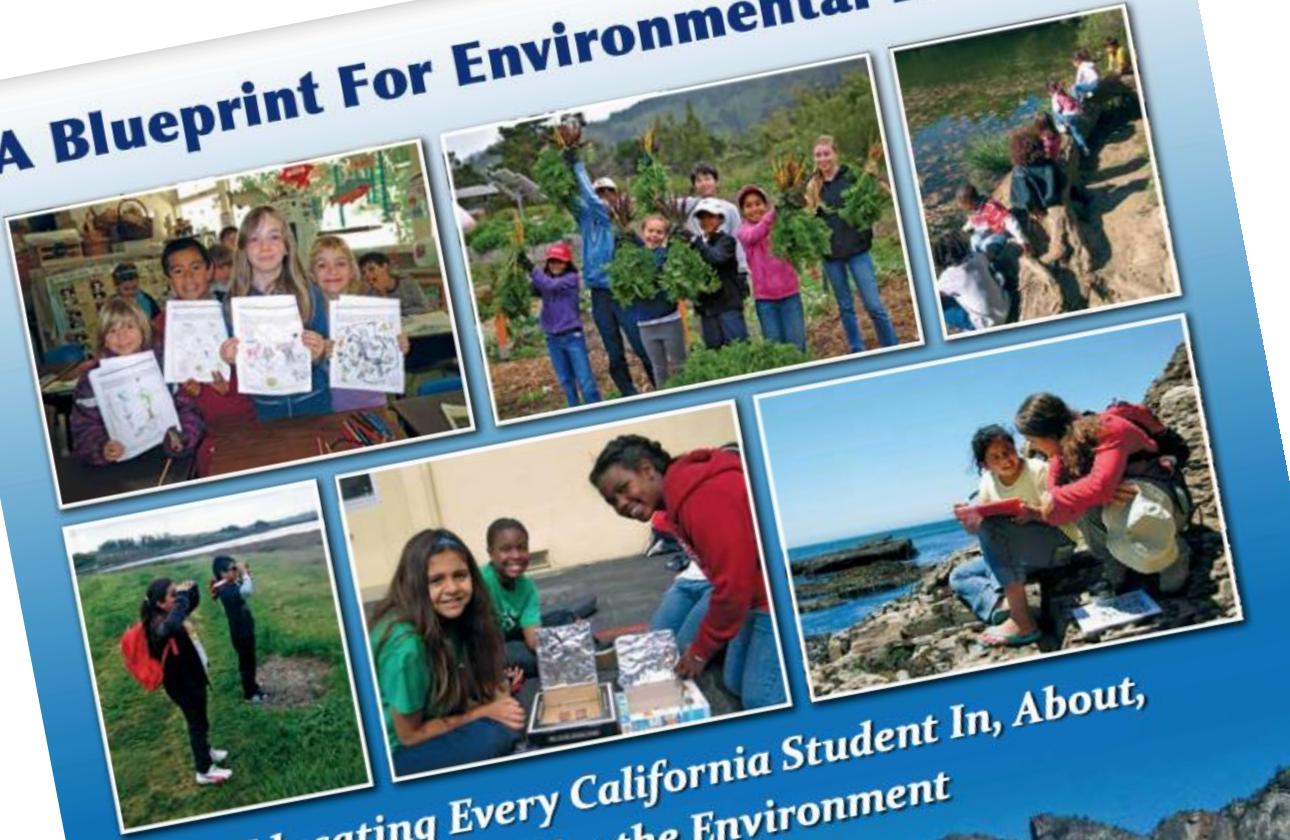
- Recognize that the core mission of schools is to prepare young people to thrive, as adults, intellectually, emotionally and financially, and that climate change threatens the prospects of young people to achieve those aims;
- Address the demands of students to better understand climate change, cultivate skills to be resilient for a climate-disrupted future, and integrate climate justice with our school system's work to address race and gender equity;
- Declare that climate change is an emergency, and that our School Committee and School Leadership shall take meaningful action by December 31, 2021 to embark upon a system-wide plan for making climate sustainability a core value and practice of our school system at all grade levels. That plan must form a committee that includes educators, students and many other stakeholders and who are charged with preparing a comprehensive set of recommendations and steps forward, including but not limited to curriculum revision, by September 15, 2022.

We want all students and PSB staff, every year, to encounter curriculum and authentic school-wide practices that foster a common purpose so that each student shall 'graduate green.' Our future depends on this.

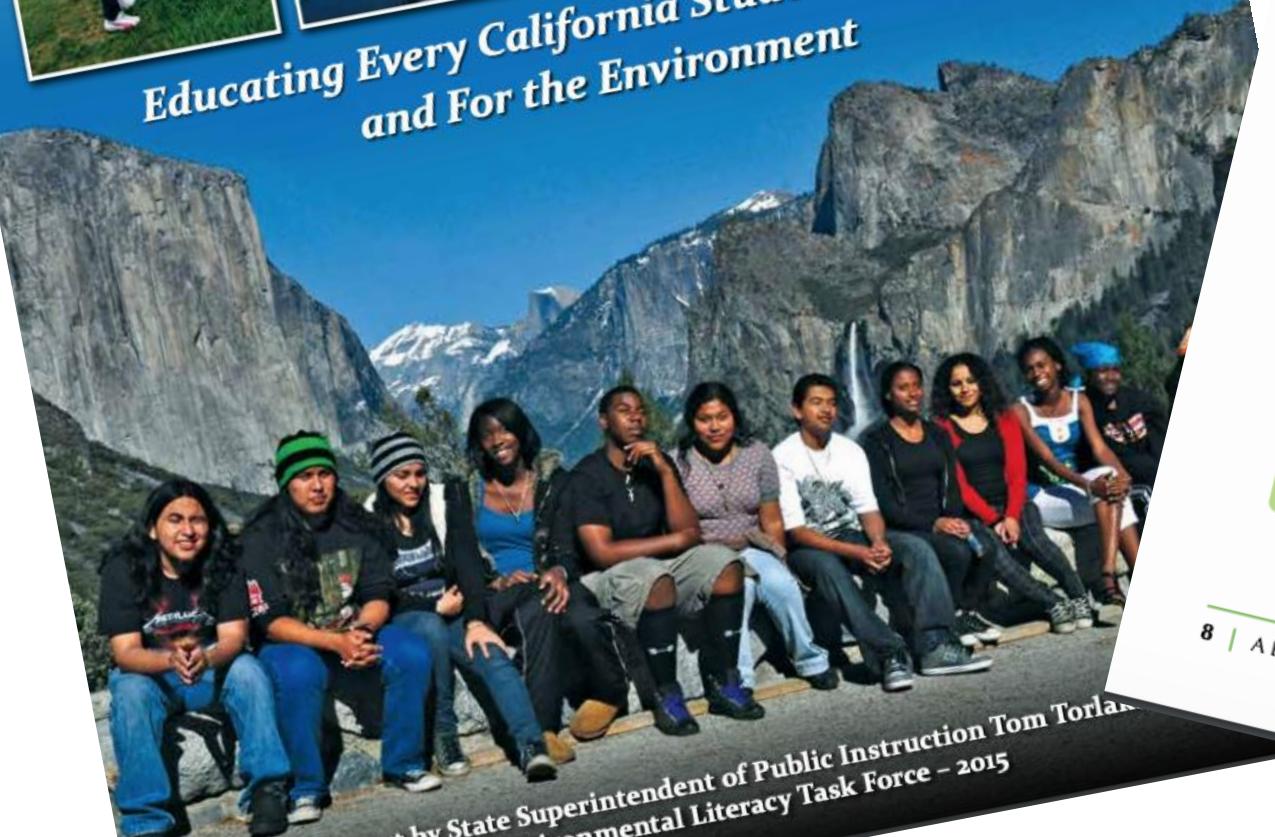
# Draft proposal for core PSB value

**Graduate Green:** We aim to strengthen our sustainability practices and curriculum, and to engage students, staff and families towards that end. All students will engage in a K-12 learning sequence that includes yearly outdoor experiences to understand how human activity and decisions impact our natural systems, cause climate change and exacerbate inequity. Student learning will cultivate skills to resolve social, political and personal impacts of climate change and examine the inequities and opportunities for justice in a rapidly transforming world. The Public Schools of Brookline will support opportunities for civic engagement and student leadership within our schools to address climate change and its intersection with race, gender, geography, nutrition, economy and wellbeing.

# A Blueprint For Environmental Literacy



**Educating Every California Student In, About,  
and For the Environment**



A Report by State Superintendent of Public Instruction Tom Torlakson  
Environmental Literacy Task Force - 2015

Strategies and Sub-Strategies

**Integrate Environmental Literacy Into Existing and Future Education Initiatives.**

- Integrate Environmental Literacy into Curricula and Instructional Materials.
- Make Improved, Integrated, Relevant Professional Learning More Accessible to Educators.
- Integrate Environmental Literacy in California's Existing and Future Accountability and Assessment Systems.

**Strengthen Partnership and Collaboration Amongst Key Stakeholders.**

- Strengthen the California Regional Environmental Education Community (CREEC) Network.
- Build Internal Collaboration at the California Department of Education (CDE).
- Build Collaboration and Partnerships.

**Mobilize the Public and Leverage the State Superintendent of Public Instruction's Influence.**

- Mobilize Public Will and Create Awareness of Strategies for Advancing Environmental Literacy.

**Implement Select Changes to Relevant State Law and Policy.**

- Ensure Implementation through Capacity Building and Continuous Improvement.
- Ensure Implementation of Environmental Literacy Task Force Recommendations.

**Develop a Sustainable Funding Strategy.**

- Organize and Plan Funding Efforts.
- Organize a Funding Network and Partnerships.
- Develop Funding Sources to Support Development of Green Schools and Schoolyards.
- Encourage Funding through Local Control Funding Formula and Local Control Accountability Plans.
- Draw on New and Existing Funding Streams.
- Support Funding for Professional Development for the California Next Generation Science Standards.

Figure 2: A Blueprint for Environmental Literacy: At a Glance  
8 | A Blueprint For Environmental Literacy: Educating Every California Student In, About, and For the Environment

# Next steps

1. Adopt a new core value: Graduate Green
2. Advisory committee to review K-12 curriculum: What do we do already? Where are the opportunities? What benchmark skills and experiences should students have?
3. Identify key points for climate justice and environmental education (interdisciplinary, project-based, etc.)
4. Support summer, other, professional development, to develop grade-level, project-based curriculum.
5. Support garden coordinators. Build the BHS garden! [key beneficiaries]
6. Enact universal composting [gateway habit to stewardship; reinforce mission]
7. Support Farm to School
8. Ask job candidates about their vision for climate justice / sustainability