

From Reactive to Climate-Ready: A Cross-Sector Simulation and Planning Workshop for Schools, Cities, and Counties

Green California Summit
September 2026

Today's Slides: www.tinyurl.com/TSClimateReady

Session Focus

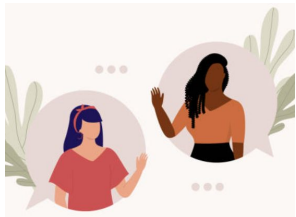
This session guides public school, municipal, and county partners through a regional climate impacts simulation and collaborative planning framework to connect shared resilience priorities—such as heat mitigation, stormwater management, and emergency preparedness—into actionable, integrated cross-sector strategies.

Discussion of
Climate
Impacts

Introduction to
Adaptation
Strategies

Planning for
Climate Impacts

Debrief and Call
to Action



Please introduce yourself to an elbow partner, and share what climate impacts you are facing in your community.

Ten Strands Mission

Our mission is to strengthen the partnerships, strategies, and systems that advance environmental literacy, ensuring all California TK–12 students thrive in sustainable, resilient schools and engage in meaningful environmental learning experiences, both in and beyond the classroom.

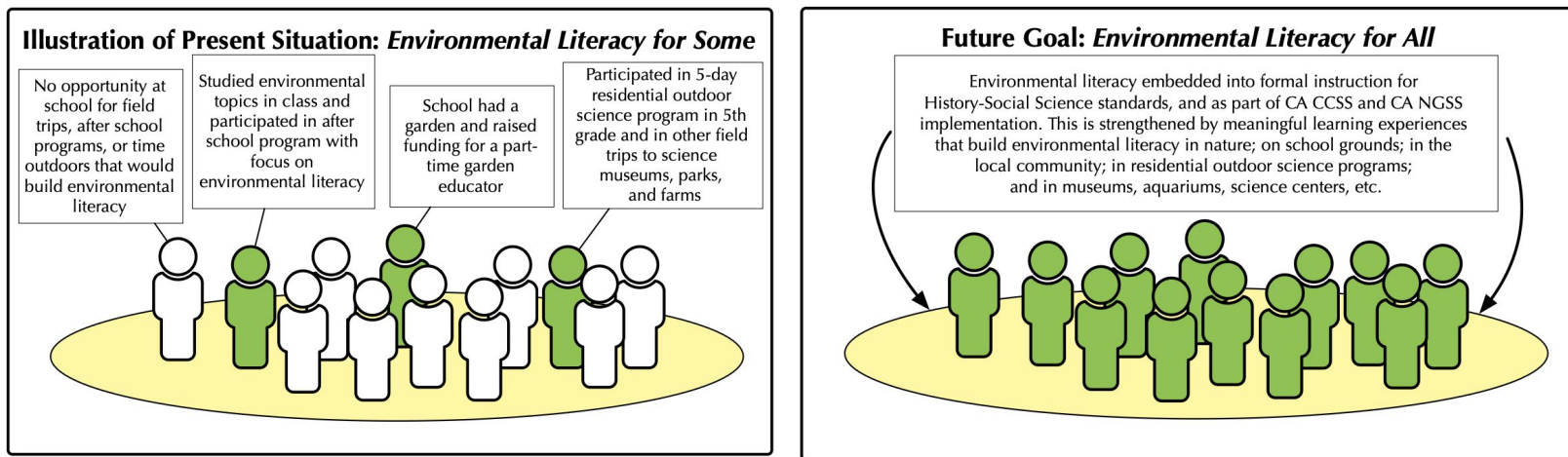
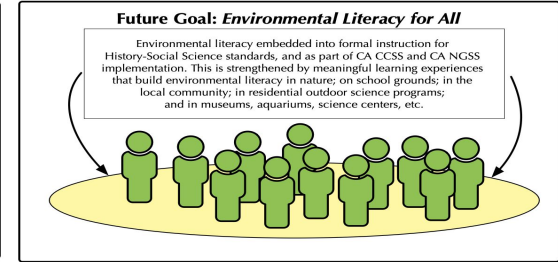
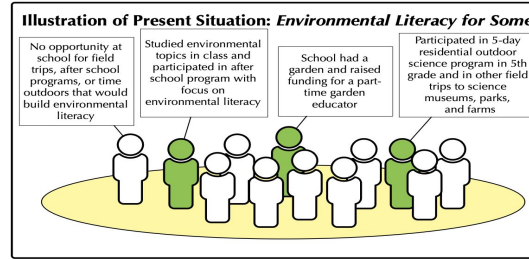
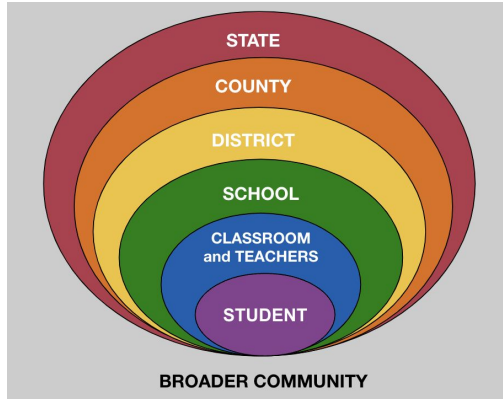


Image Source: CA Blueprint for Environmental Literacy (2015)

North Stars: Vision, Mission, Scales of Influence, and Whole Systems Change



4Cs Whole Systems Framework for Environmental and Climate Action in Schools

*Adapted from Sustainable Schools Project & Plymouth University: Andra Yeghohan - 2013

 CAMPUS	 CURRICULUM	 COMMUNITY & CULTURE
Operations across the buildings and grounds model sustainable and resilient practices, minimize disruptions for learning, and serve as a lab for learning.	Curriculum integrates Environmental and Climate Literacy as well as principles and practices for Solutionary Teaching and Learning.	Evidence exists within the "walk" and the "talk" of the school community for prioritizing sustainability and resiliency, and developing strategic partnerships with community based organizations.

Constituents

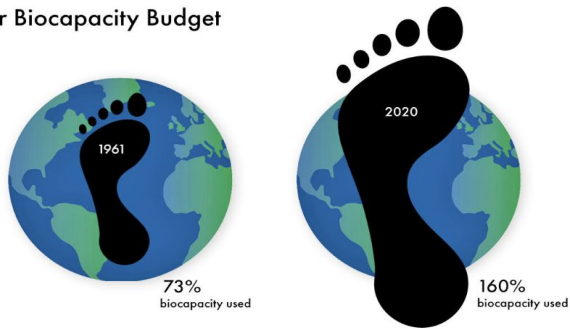


Environmental and Climate Crisis Overview

Outcomes of Non-Indigenous Human Impact

Human impact has led to two separate but correlated environmental crisis

Busting our Biocapacity Budget



Source: Global Footprint Network, National Footprint & Biocapacity Accounts 2019 Edition
data.footprintnetwork.org



Ecological Overshoot



Global Warming → Climate Change

The Climate Crisis

Habitat Destruction & Ecosystem Degradation



Natural
Resource
Depletion



Built
Landscape

Pollution



Climate Change serves as the greatest
symptom of Habitat Destruction and
Ecosystem Degradation

IPCC Fall 2018: Special Report



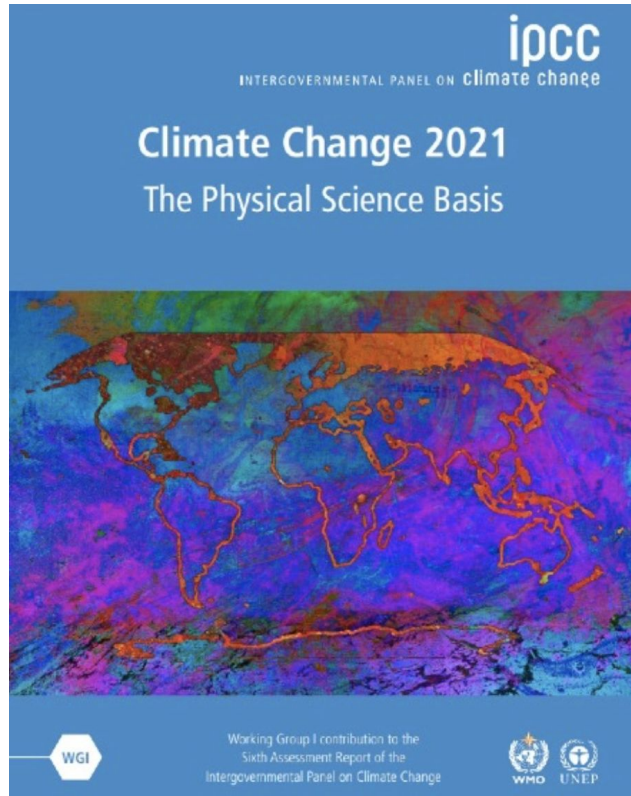
For many decades, there was an assumption that climate impacts were in the distant future in the 2100s...This changed in October 2018...

2020-2030 Pockets of Climate Emergencies

2030-2050 Widespread Emergencies Across all Regions

2050+ Climate Chaos at the Global Scale

IPCC Fall 2021: Sixth Assessment Report (AR6)



Released August 2021

- **First, global warming is unequivocally (100% certain) caused by humans**
- **Second, the impacts of the Climate Crisis are already here**, and are disproportionately impacting low-income, black, indigenous, and communities of color
- **Third, temperatures have already increased by 1.09°C since 1880, and will continue to at least the 1.5°C mark in the next twenty years due to emissions from past decades**

If humans act urgently, temperatures could peak at that 1.5°C mark and then decline, helping to avoid climate chaos, and to stabilize the planet and life on it.

Climate Impacts Review and Discuss

The impacts of climate change vary by region.

Q: Which of these climate impacts do you feel you are already experiencing, and how have these impacted your daily life and routines? How has it felt to experience the impacts both physically and emotionally?

Q: Which impacts are you witnessing more from a distance, and how has that felt physically and emotionally?

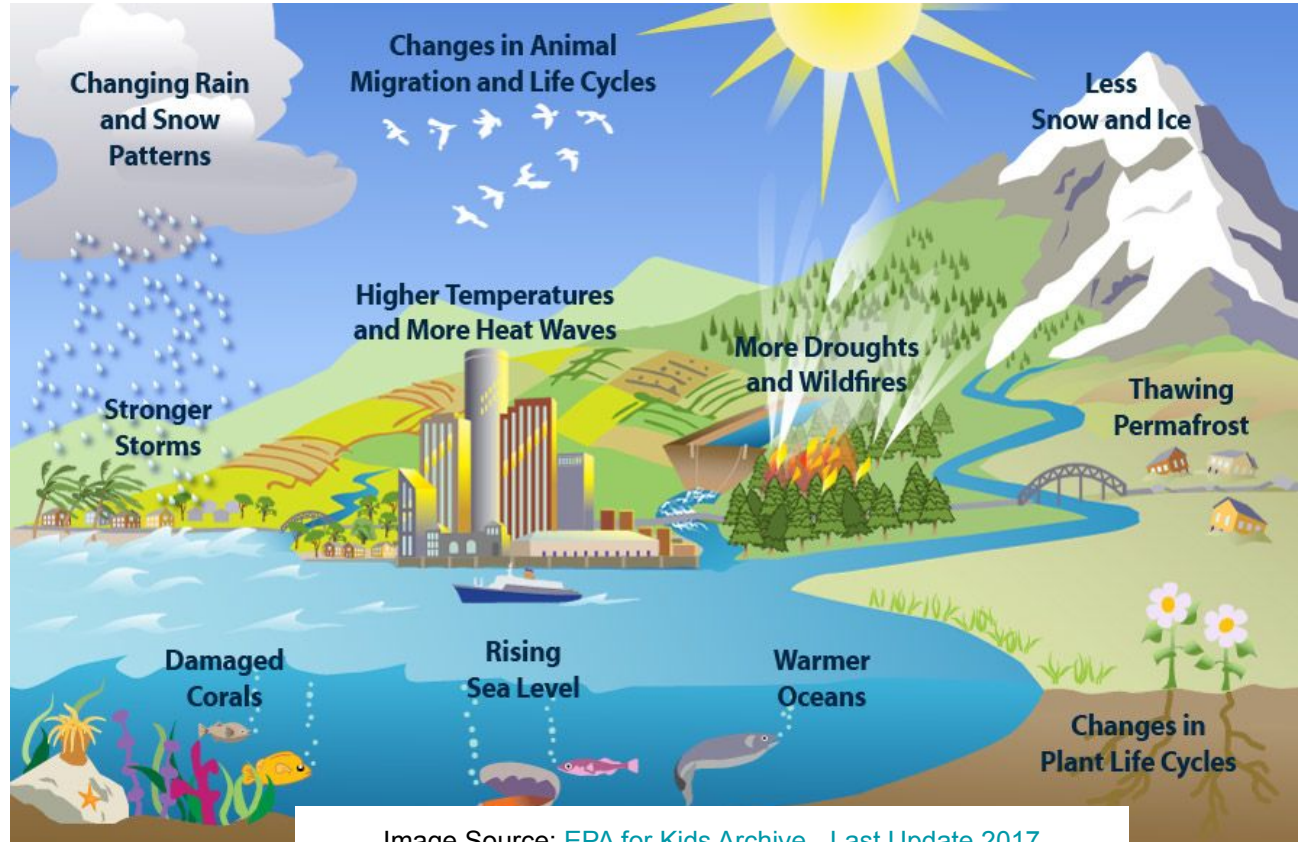


Image Source: [EPA for Kids Archive - Last Update 2017](#)

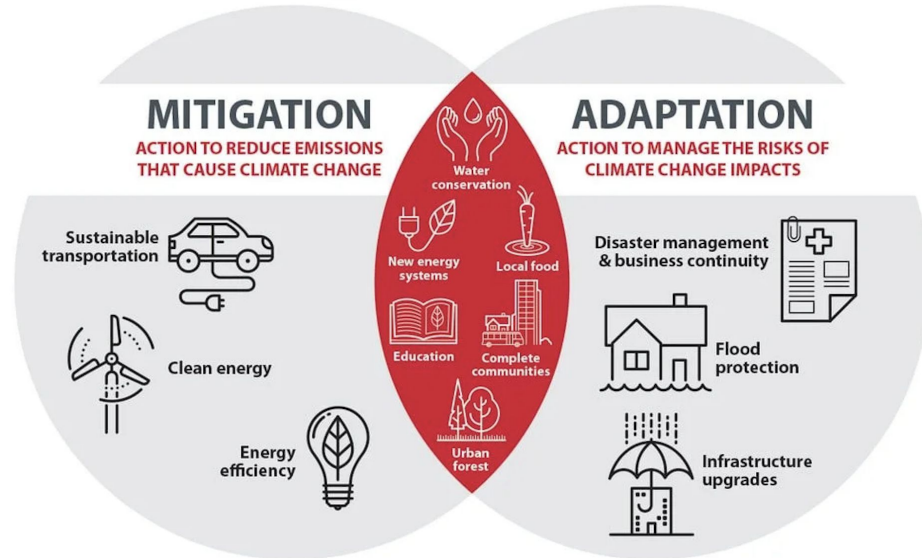
Climate Resilience = Mitigation & Adaptation

Both...And Thinking

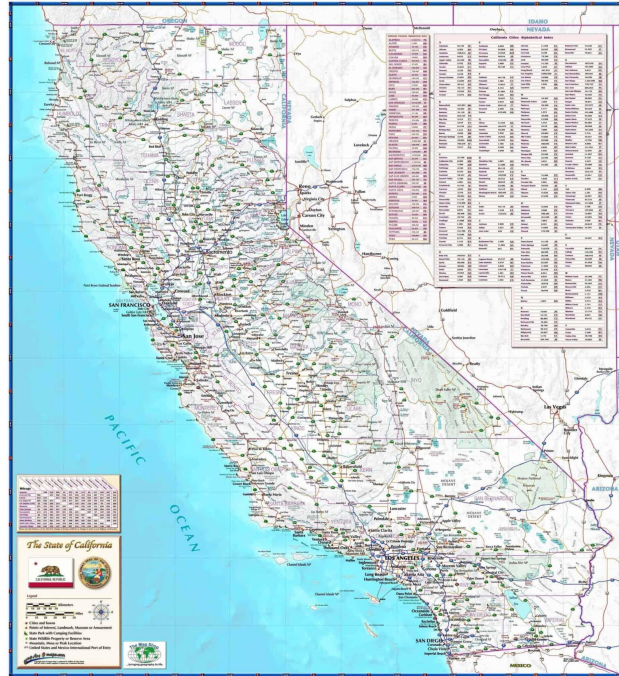
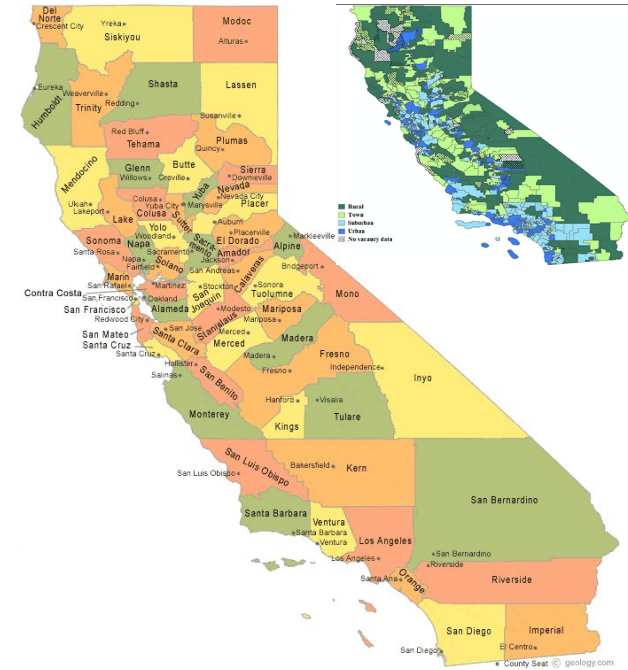
The environmental and climate crisis demand environmental sustainability and climate mitigation strategies that seek to slow and end the crisis, while simultaneously adapting to the impacts of the climate crisis. It is a BOTH/AND!



Building Climate Resilience



Climate Impacts Do Not See Borders



Effective climate adaptation and resilience requires multi-jurisdictional coordination and planning!

Climate Impacts and Resilience Planning Activity



Climate Resilience Planning Simulation

Participants from counties, cities, school districts, and other jurisdictions explore climate impacts, connect them to resilience strategies, and identify opportunities to embed resilience into existing plans and processes.

The activity reinforces both the urgency of addressing the climate crisis and the importance of working across jurisdictional boundaries through coordinated action.

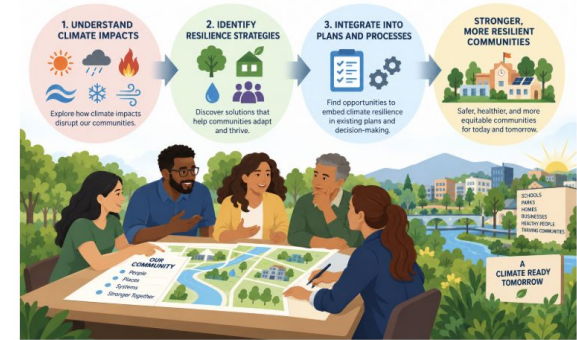


**Climate Resilience Planning for Public Jurisdictions:
Connecting Impacts, Strategies, and Planning for Systems Change**
Workshop Activity - Last Updated September 2026

I. WORKSHOP PURPOSE AND BACKGROUND

Addressing climate impacts in California requires more than isolated projects or individual actions in standalone jurisdictions. It requires integrating climate resilience into the core systems that guide how jurisdictions (county, municipal, school districts, etc.) plan, operate, and make decisions. A key practice for advancing this kind of whole systems change is developing the ability to see how climate impacts, response strategies, and institutional processes are connected within and across systems.

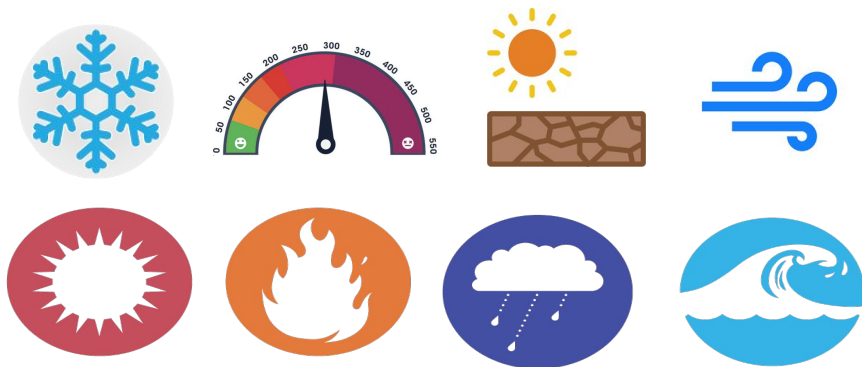
This workshop activity provides an opportunity for participants to shift from a primarily reactive stance to addressing climate impacts, to a more proactive approach that anticipates risks and embeds resilience into everyday planning and decision-making. It also provides an opportunity to practice the kind of systems thinking needed to make this shift by asking participants to analyze relationships, consider trade-offs, and identify where action is most likely to be effective.



Slide Deck and Digital Resources: www.tinyurl.com/TSClimateReady

Step 1: Climate Impacts and Disruptions

- Open the ***Climate Impacts envelope*** and take out the climate impacts cards
- For each climate impact **review the definition** and **scan through the possible disruptions** to your community
- **Consider the following:**
 - Which disruptions are you most concerned about?
 - Which disruptions might have the most direct connection to your professional roles and responsibilities?



EXTREME TEMPERATURE: HEAT



High Heat Definition: Extreme heat or heat waves occur when the temperature reaches extremely high levels or when the combination of heat and humidity cause the air to become oppressive (CDC, 2019).

- Above High Heat Threshold: A day is considered hot if it is above normal range of temperatures based on historical data.
- Above 87 Degrees: A day that exceeds the new California guidelines for what is safe for workers without measures to cool the workplace.

Examples of Disruptions to Schools: In general, children are more likely to be affected by high heat than healthy adults (with the exception of elderly). There are a number of possible disruptions to schools from high heat:

- High temperatures impact a student's ability to focus and learn, and can put strain on school building facilities. When classrooms are subject to high heat, students can become distracted, and experience discomfort such as sweating, panting, or the dilation of blood vessels. High temperatures inside buildings can also exacerbate existing medical conditions like asthma or abnormal blood pressure.
- Extreme temperatures also put students and staff at risk of developing a heat stroke, heat exhaustion, or becoming dehydrated (CDC).
- Due to inadequate infrastructure schools have closed when temperatures rise higher than normal, and infrastructure is not able to cool properly.
- High heat can also impact transportation infrastructure and cause delays for students/staff traveling to and from school.

Resources: [Cal-Adapt](#), [CDPH Climate Change and Health](#), [California Heat Assessment Tool](#), [CDC](#)

Slide Deck and Digital Resources: www.tinyurl.com/TSClimateReady

Grief - Outrage - and Optimism

Reflect and discuss the following prompts:

- **Grief:** What do you love and hope to never lose to environmental and climate chaos?
- **Outrage:** Toward what or who do you want to direct your feelings of anger or rage, and what do you want it/them to hear or understand?
- **Worry:** What are the worries, fears, and anxieties that surface for you when you think about the environmental and climate crisis?
- **Hope:** Where are you finding hope as you consider the future? *If time, explore solutions resources in the ["Museum of Hope and Optimism."](#)*

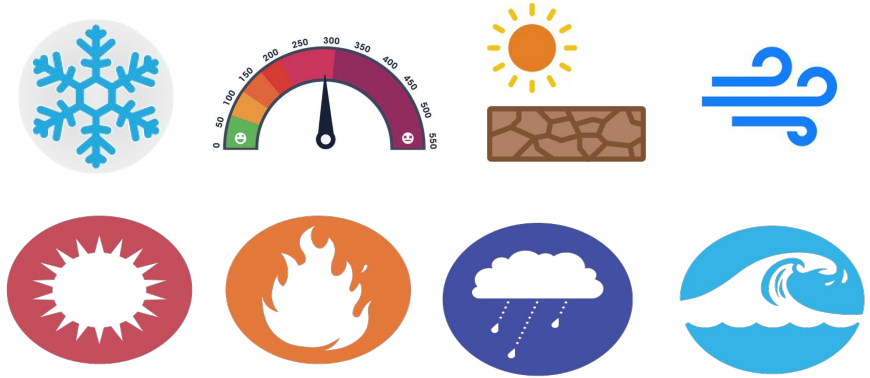
Inspired by the [Climate Ribbon](#)



Museum of
Hope and
Optimism

Step 2: Climate Impacts and Resilience Adaptations

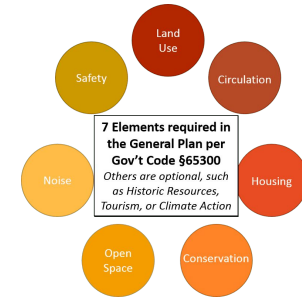
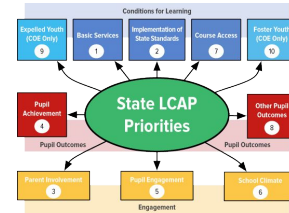
- Take out the ***Adaptation Strategies***
- Review adaptation strategy cards and **pair each with a climate impact(s)** that you think it best addresses.
- **Consider the following:**
 - Which strategies seem familiar to you, and which are less familiar?
 - Which strategies would support resilience in your community?
 - Which strategies are within your sphere of influence to implement?



Community Partnerships Work with organizations to build resilience and response capacity.	Stormwater Capture and Reuse Collect and reuse rainwater to reduce flooding and conserve water.	Native and Climate Adapted Plants Use drought-tolerant, locally adapted plants to increase landscape resilience.	Maintenance and Repair Protocols for Extreme Events Plans for how to adjust operations during heat, smoke, storms.
Staff Training Build internal capacity to respond to climate impacts.	Permeable Surfaces Where possible, replace hardscape with materials that reduce heat and allow water infiltration.	Windbreaks Use living barriers of vegetation to reduce wind exposure and protect outdoor areas.	Emergency Planning Integrate climate impacts into emergency plans with protocols for response and recovery.

Step 3: Plan Connections

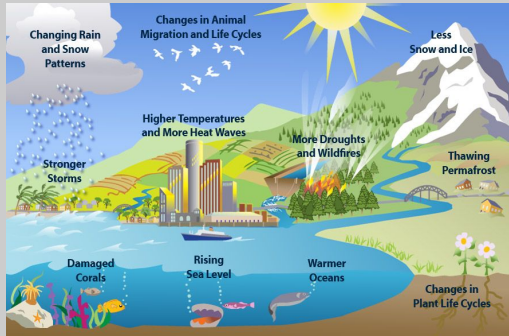
- Take out the **Plan Cards (Appendix C)**
- Review plans to understand the purpose of each one
- With a PARTNER choose **ONE** climate impact, and the adaptation strategies you have already paired, and discuss:
 - Which plan(s) might be the right plan for addressing this climate impact and adaptation strategies?
 - Who would need to oversee this work? Where might new coordination be needed?
 - What are the barriers and opportunities you anticipate for integrating these strategies into the education plans you selected?



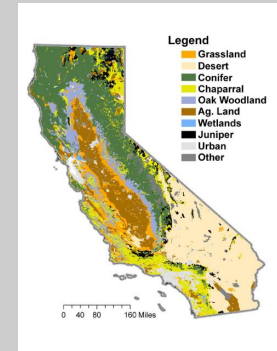
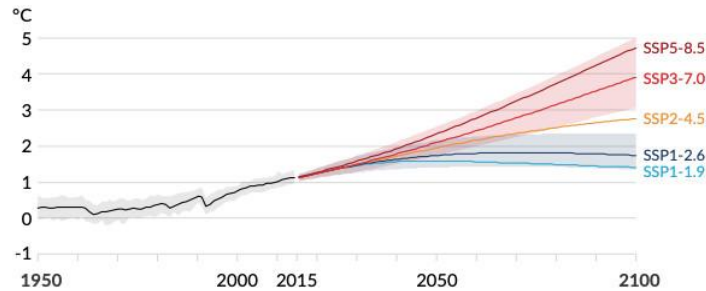
School Plan - Comprehensive School Safety Plan (CSSP)	
Overview	A Comprehensive School Safety Plan is a written, annually reviewed document designed to ensure schools can prevent, prepare for, and respond effectively to emergencies and campus safety challenges. It also establishes policies and procedures that support positive school climate and student well-being. The requirement originates in California Education Code §§ 32280 -- 32289.5. The CSSP requirement ensures every California public school has a structured process to plan for safety, respond to evolving risks, and support student well-being. Plans support: - Improving response times in critical situations. - Reducing confusion during disasters or threats. - Fostering a culture of safety and preparedness across the campus. - Strengthening coordination with local emergency partners (ex: police, fire, and EMS).
Updated	Annually - Schools must adopt or update their CSSP by March 1st, and districts or county offices must notify the California Department of Education if any schools are noncompliant by October 15th.
Approval	School Board
Law	Required by CA Education Code (§ 32282)

Extension: Climate Impacts Simulation

Simulation Overview



a) Global surface temperature change relative to 1850-1900

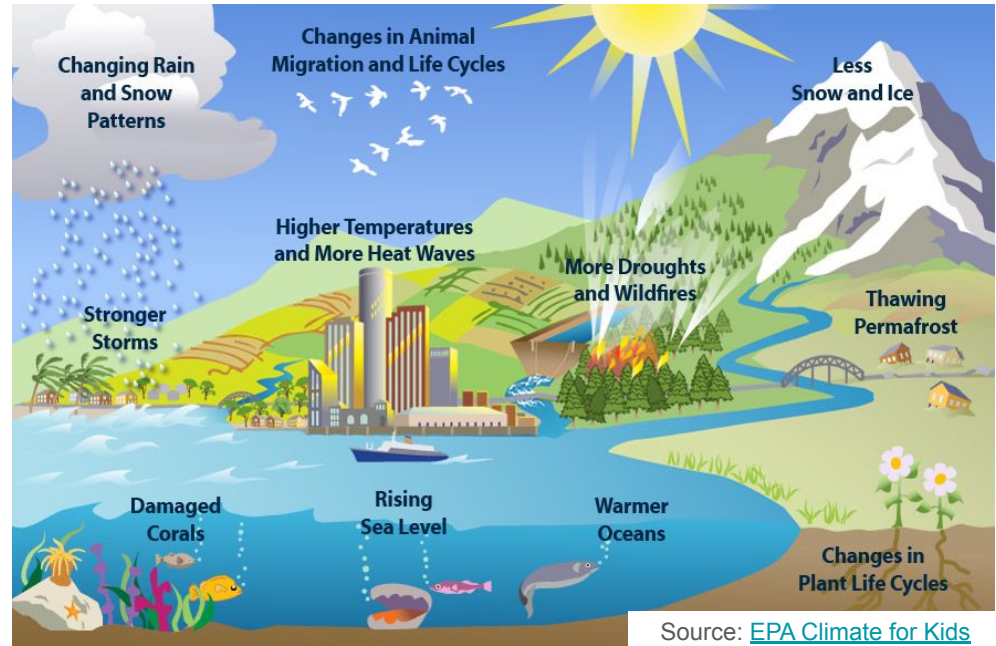


www.tinyurl.com/TSClimateImpacts

Climate Impacts Simulation Purpose & Outcome

Purpose: Experiential roleplay simulation exploring potential effects of climate impacts:

- Review climate impacts data projections for the 2030s, 2040s, and 2050s
- Consider how these impacts will potentially disrupt daily lives personally and professionally, and how to address community needs
- Reflect on emotional reactions to the data, and sense of urgency to take action to mitigate the environmental crisis

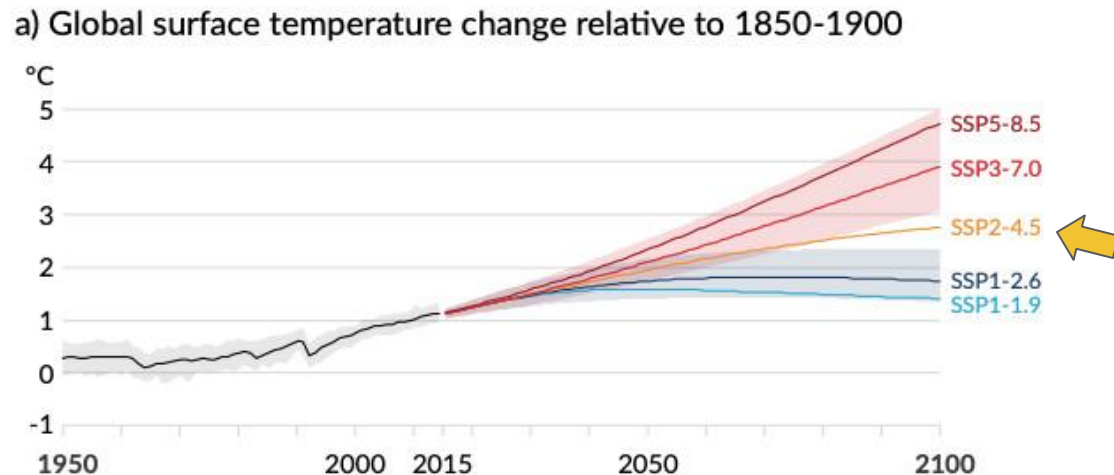


Outcome: Support a shift from a reactive paradigm to a proactive climate resilient (or climate ready) paradigm.

Data for the Simulation utilizes the IPCC Sixth Assessment Report (AR6)

Different Projections of Future Scenarios - Released in 2021

Representative Concentration Pathways (RCPs) provide five different scenarios of GHG emissions and atmospheric concentrations, air pollutant emissions and land use.



This simulation utilizes data from the mid-range scenarios for humans taking action to mitigate human impact

- RCP 8.5: Very High Emissions
- RCP 6.0: Intermediate Higher
- **RCP 4.5: Intermediate Lower**
- RCP 2.6: Low Emissions (intense mitigation)
- RCP 1.9: Limits global warming to below 1.5

Directions: Data Review



Access Data: www.tinyurl.com/TSClimateImpacts

Review Data:

- SELECT a county in your region and the decade
- SCAN through the Global Narrative *and* the Local Data to get a sense of the climate impacts in that decade for your region.

Mindset Suggestion - As you are scanning, think about the following:



- What climate impacts are most concerning, and what emotions are surfacing for you as you review?
- How old will you be for this round of data, and what do you anticipate doing at this phase of life?

Select County  Select Decade 

Alameda 2020-2029

Global Narrative
2020-2029

Climate change is affecting all areas of life, in ways big and small, for people around the world. Communities are facing agricultural challenges, massive migration, and ecosystem instability.

Globally, food systems are struggling to support a planet of 8.2 billion people as food systems continue to use unsustainable practices. Hotter temperatures are shifting regions where certain foods can be grown. Conditions such as longer dry periods and heavier rainfall are inviting new pests and making it difficult for farmers across the world to keep their crops alive and healthy.

U.S. national security experts recognize that environmental damage and climate change will impact human security challenges, threaten public health, and lead to historic levels of human displacement. Climate-related natural disasters are displacing 25 million people both internally and across national borders. Sea level rise continues to inundate communities causing infrastructure damage, stormwater issues, and groundwater salinization.

We are in a human-caused mass extinction on a scale that has occurred only five other times (due to natural elements) in the 4.5 billion year history of the earth. California is home to one of 36 worldwide biodiversity hotspots, where thousands of species are only found in this area (and nowhere else) and over 70% of the habitat has already been lost. 1 million plant and animal species are threatened by extinction, many of which are expected to become extinct within the next 10 years.

Selected County



© 2025 Mapbox © OpenStreetMap

What Life Might Look Like
for Alameda County in 2020-2029



Extreme Heat

As the climate changes in California, one of the more serious threats to the public health of Californians will stem primarily from the higher frequency of extreme conditions, principally more frequent, more intense, and longer heat waves. An extreme heat day or warm night can be defined in multiple ways:

Above High Heat Threshold: a day in a year when the daily maximum/minimum temperature exceeds the 98th historical percentile based on observed historical data (above what would be considered the normal range).

Above 87 Degrees: a day in the year that exceeds the new California guidelines for what is safe for workers without measures to cool the workplace.

Directions: Discussion Prompts



With your table, discuss *any of the following* reflection prompts:

- A. **Daily Life:** How might the projected climate impacts affect plans and activities you would be doing at work, or with family and friends, or daily chores/activities? How might that vary by season?
- B. **Community Needs:** What kinds of challenges and needs will come up for the community? Consider the following areas, and how perspective would shift if one is a resident or a decision maker:
 - Infrastructure: Roads, homes, schools, parks, community centers, hospitals, businesses, communication channels, etc.
 - Physical and Mental Health
 - School Specific: What kinds of challenges and needs come up related to campus, curriculum, community and culture (including social and emotional well-being)?
- C. **Ecosystem Consideration:** Think about the biome of your area, how might these challenges impact the plants, and animals in different seasons?



Reminder: This simulation is a thought exercise, not a predictive model. Data and narratives in this simulation are not meant to forecast the future literally, but are examples of what is possible. The action we take now to reduce human impact on planetary systems will have effect on the severity of climate impacts.

Closing and Reflection

Today's Slides: www.tinyurl.com/TSClimateReady

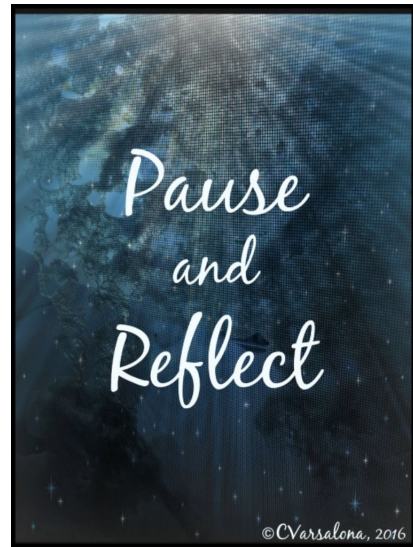


Closing Reflection Prompts

Our Hopes and Dreams for You: The school community(ies) you are connected to will institutionalize a climate ready mindset and shift from a reactive to a proactive approach, centering climate resilience as a core tenet of education.

Reflection Questions:

- What resonated with you in this session?
- What questions do you have that you want to explore further?
- What commitments can you make to reduce disruptions to your school community from our changing climate?



**Please reach out if
you have questions
or need support!**



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