

# Building Young Leaders to Accelerate Climate Solutions



**Mission**

Building leaders to  
accelerate climate  
solutions



**Vision**

A resilient world where all  
communities thrive



**Values**

We are committed to  
impact; we are networkers  
and collaborators; we are  
inclusive and just; we are  
always learning; we are  
one team.

# SEI's Flagship Programs



## ENERGIZE SCHOOLS

Provides pre-K-12 teachers with project-based curriculum, teacher training and tailored support to inspire student climate leaders



## CLIMATE CORPS education outside

Garden educator Fellows plant the seeds of ecoliteracy and science in their outdoor classrooms, growing elementary environmental leaders



## CLIMATE CORPS

A flexible bridge-to-career fellowship program working for higher education institutes, governments, nonprofits, and for-profit businesses



## ENERGIZE COLLEGES

Builds climate-focused communities of practice across campuses and gives students hands-on internships and academic learning experiences



## ENERGIZE CAREERS

Creates a diverse energy and climate workforce through industry-advised training of people who experience systemic barriers to high-wage jobs



Pre-Kindergarten

Career



**ENERGIZE  
SCHOOLS**

A PROGRAM OF SEI



**Problem to Solve:** Students are not building needed climate solution leadership skills, largely because schools and teachers do not have the resources needed to confidently engage students with climate solutions.



**Our Solution:** Students will be best equipped to drive climate solutions in the future by engaging with climate issues in the present.

We provide resources, partnership, and training. We begin with easy-to access challenges, then grow into deeper climate education through project-based curriculum and professional development.

## Answer in the Chat:



How comfortable do you  
feel teaching about  
climate solutions?

Provide your answer from  
1-5, with 5 being most  
comfortable!




# Student-led Challenges

- Challenge resources are designed to be flexible, minimizing burden on teachers.
- Students learn about environmental issues and then receive guidance as they take action to improve their local environment!
- Often, these challenges are the beginning of fruitful collaborations.

**Earth Day Challenge Part 2:**  
Build Your Knowledge on Air and Water Quality

**Welcome to Part 2!**  
Before proceeding with Part 2, please check with your teacher, as they may have additional instructions or requirements. If you do not have a teacher or advisor, feel free to reach out to your Challenge Advisor if you have any questions or need support.

In this section, you will complete Steps A through C to analyze the air and water quality in your community. Part 2 requires you to use the free online mapping tool CalEnviroScreen 4.0.



CalEnviroScreen 4.0 is a screening methodology that can be used to help identify California communities that are disproportionately burdened by multiple sources of pollution.

However, you will need to complete a Document that you will use to work through the challenge campaign.

2  
4  
5  
8

Strategic Energy Innovations.



# From Challenges to Projects in San Diego

- High Tech High International first signed up for our Energy Challenge in 2016.
- SEI projects have become a core part of the school's project-based curriculum and students have engaged in a variety of field trips, presentations, and more!
- This school year, students improved indoor air quality by building and delivering air purifiers to their school community.



# SEI's Curriculum Library

- Hundreds of NGSS-aligned units on sustainability, energy, climate change, and more!
- Ready-to-use, including the following elements:
  - Educator Unit Outline
  - Educator Instructional Guide
  - Presentation Slides
  - Student Handouts

The collage features four overlapping educational materials:

- Introduction to Climate Change:** A white page with a green title and a circular image of a tree against a blue sky.
- The Science of Climate Change Table of Contents:** A white page with the Energize Schools logo and a blue header. It lists various sections and their page numbers:

Table of Contents	
Table of Contents	1
Lesson Overview	2
Lesson Outline	2
Time	2
Topic	2
Assignments	2
Lesson Objectives	2
Preparation	3
Materials	3
Discussion/Presentation - Engage: Introduction to Climate Change Science	3
Discussion - Explore: Historic Climate Trends	
Presentation - Explain: Recent Climate Trends	
Activity - Elaborate: Strength of the Evidence	
Discussion: Elaborate - Environmental Justice	
Exit Ticket: Evaluate - Climate Change Connections	
- Handout: Strength of the Evidence - Group 1:** A white page with a green header, a name and date line, and a line graph titled "Global Temperature Anomalies (°C)". The graph shows a clear upward trend from 1880 to 2010. Below the graph are instructions for a group activity and a citation for the data source.

Use this handout for the in-class Strength of the Evidence activity.

**Graph\***

Global Temperature Anomalies (°C)

As a group, discuss what the graph is showing and how it is connected to climate change, using the guiding questions.

Assign a person in your group to take notes and another person to summarize your conversation during the large group share-out.

\*Thanks to the following: Global Temperature Records in Close Agreement; Guided Instruction for Science Students; NASA, January 13, 2015; [www.nasa.gov/content/1.10113.101](http://www.nasa.gov/content/1.10113.101)

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[www.sei.org](http://www.sei.org) © 2011
- The Science of Climate Change Presentation Slide:** A dark slide with a background image of a person in a field and the Energize Schools logo.



# Activating Campuses as Living Labs

- The Zero Waste Schools program provides classroom presentations, facilities support, and guidance for student Green Teams to properly manage waste at schools.
- Collaboration with ForeFront Power, a utility-scale solar provider, allows us to turn infrastructure upgrades into learning opportunities.



# Building Career Pathways in the Bay Area

- SEI has worked with Antioch High School, in the East Bay Area, since one teacher signed up for programs in 2018.
- Now, Antioch High School has a green careers CTE pathway made up of SEI's two full-year courses, Innovations in Green Technology and Energy and Environmental Design.
- Over 250 students take these courses each year.



# The School of Environmental Leadership

- The Marin School of Environmental Leadership builds environmental leadership through a project-based high school education
- Students complete hands-on learning through projects that make a tangible change on their campus.





**What kinds of resources would be most helpful for you in engaging students with climate solutions?**

# Preparing Students for Tomorrow's Careers

- **Every job is a climate job**, including the roles of consumer and citizen.
- Green jobs are growing faster than the rest of the economy.
- We can prepare students by encouraging their love of nature and providing high-quality **Career and Technical Education**.
- Making use of school **campuses as living labs** gives students opportunities to practice these skills and grow into leaders.





**sei** BUILDING LEADERS FOR A  
**RESILIENT WORLD**

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