



# Community Outreach for Climate Change

## Competency

Educators will engage with the community around solutions to climate change.

## Key Method

Educators will create an action plan that supports stakeholder partnerships to carry out a climate change initiative.

## Method Components

### Civics

Community members serve as key stakeholders in efforts to address climate change. When teaching about climate change and devising solutions, educators can look to those in the community as a source of expertise and a bridge to connect with students outside of the classroom.

Understanding the political and social dimensions of climate change and how to participate in civic action are important parts of addressing climate change. By teaching students about civics and modeling best practices as an environmental steward, educators can help learners become more informed and engaged citizens who can make a difference in the world.

Educators can advance climate action by supporting policies (and candidates supporting those policies) that support climate solutions in schools and communities. In addition, educators can:

- Take time to research each electoral candidate's position on environmental issues to make informed decisions when they vote on election day;
- Understand how school policies affect the environment and elect school board officials who will support positive climate efforts; and
- Teach students about the importance of voting and help address potential misunderstandings and barriers related to voting.

### Local Solutions

In each community, there are probably several existing systems for getting involved in environmentally friendly practices. Educators should look to see what has been established in their local area, determine how each program contributes to climate action, and learn how to get involved with or start a program that aligns with their interests and priorities. Local projects also represent an opportunity to engage students in learning that is interactive.

### **City/Community Climate Action Plans**

- Many communities have established climate action plans to guide their efforts.
- Educators can research city climate action plans and policies to better understand how they impact schools and students.

### **Farmers' Markets**

- Many communities host regular farmers' markets where produce and products from local farms and small businesses are sold.
- Farmers' markets benefit small businesses and local farmers and provide people with access to fresh produce.
- This option can support small businesses and local farms while reducing carbon emissions from transportation.

### **Seed Trading**

- In some communities, programs to swap and trade fruit and vegetable seeds for gardeners are common.
- Educators can grow native plants, which is a great way to start and maintain a community garden.

## Community Buy-In

One of the most difficult things when talking about climate and the environment is how to involve the local community in efforts to sustain these climate change practices. It is important for community members to understand that their efforts matter and are beneficial.

### **Community Gardens**

- Students can maintain a community garden and manage plans to donate the produce to local shelters or to families in need.
- Working in a community garden is an opportunity for students to learn about how food is grown and more.

### **Community Relief and Aid**

- A school could provide relief for community members in the event of extreme weather, following natural disasters, or in response to water and food shortages.

### **Service Learning**

- Service learning can be a part of the curriculum, offering students a powerful way to make a difference while partnering with the community to solve climate change problems.

## Engaging Students with Environmentally Friendly Practices

Every educator has received this dreaded question: “But when am I *actually* going to use this?” One way to get students engaged with environmentally sustainable practices is to introduce them to people who do this work for a living. Seeing how people use this knowledge first hand helps students make lasting connections and relate abstract ideas to real life situations.

### **Environmentally Friendly Trades and College Pathways**

Many students have a vague idea about green careers but don't know how many options are available to them. Students should use exploration to research the ever-changing career and college pathways that align with their interests. Featuring careers that are “green” may help students to discover options and opportunities for employment while also helping the environment.

There are many careers educators can discuss with their students who are interested in sustainability. Featured here are just a few of them. Students can also

consider how sustainability and climate change will be relevant to any career they choose.

### **Agriculture and Forestry**

Growing food and managing lands must be done in a sustainable manner. There are many jobs in this field where students can have a positive impact. Not all careers in agriculture and forestry are heavily labor-intensive. Many careers within the industry focus on optimal soil quality or conducting experiments to improve crop yield.

Featured careers in agriculture and forestry include:

- Farmers and ranchers;
- Agricultural inspectors;
- Buyers and purchasing agents for food products;
- Landscape architects; and
- Precision agriculture technicians.

### **Renewable Energy**

Renewable energy is energy that is generated from sources that are naturally replenished, such as sunlight, wind, water, and geothermal heat. Renewable energy is a clean and sustainable source of energy that does not produce greenhouse gases or other pollutants, such as:

- Solar energy;
- Wind energy;
- Hydropower;
- Biomass energy; and
- Geothermal energy.

### **Energy Efficiency**

The energy efficiency industry is a rapidly growing sector focused on reducing energy consumption and greenhouse gas emissions through the development and implementation of energy-efficient technologies, practices, and policies. The industry encompasses a range of sectors, including building construction and renovation, transportation, industrial manufacturing, and energy production and distribution. The industry aims to reduce energy waste, save money on energy bills, and mitigate climate change by reducing greenhouse gas emissions. The energy efficiency industry offers opportunities for job creation and environmental sustainability.

Featured careers in energy efficiency include:

- Electrical engineers;
- Heating and air conditioning mechanics and installation;
- Refrigeration mechanics and installation; and
- Training and development.

### **Environment Protection**

The environmental protection industry is a growing sector focused on preserving and protecting the natural environment. It monitors and analyzes environmental data, develops and implements environmental regulations, designs and implements environmental remediation projects, and consults with businesses and government agencies on environmental issues. It is also an industry that is driven by the need to address environmental challenges, like climate change, pollution, and habitat destruction. The environmental protection industry offers opportunities for job creation and environmental sustainability by promoting the development of clean technologies, reducing waste, and preserving natural resources.

Featured career fields in environmental protection include:

- Climate change analysis;
- Atmospheric and space science;
- Environmental economics;
- Forest and conservation; and
- Industrial ecology.

### **Water**

The water industry is a critical sector that provides clean and safe water for human consumption, agriculture, and industry. It encompasses a range of activities, including water treatment and distribution, wastewater treatment and disposal, water conservation and efficiency, and water resource management. The water industry is essential to public health and environmental sustainability. The industry faces challenges such as climate change, population growth, water scarcity, and an aging infrastructure. The water industry offers opportunities for innovation, job creation, and economic development by promoting the development of innovative technologies and infrastructure projects to address water-related challenges.

Featured career fields in the water industry include:

- Hydroelectric plant technology;
- Hydrology;
- Wastewater engineering; and
- Soil and water conservation.

## **Transportation**

The transportation industry is a crucial sector that encompasses the movement of people and goods by various modes, such as road, rail, air, and water. The industry is essential for economic growth and development, enabling the exchange of goods and services across different regions and countries. However, transportation also contributes to greenhouse gas emissions and air pollution. The transportation industry is transforming, driven by technological advancements and policy initiatives aimed at reducing emissions and improving efficiency. The industry offers opportunities for innovation and job creation by developing new technologies and implementing sustainable transportation systems, such as public transit and bike-sharing programs.

Featured careers in transportation:

- Fuel cell technicians;
- Transportation planners;
- Automotive engineering technicians;
- Electronics engineers;
- Bus drivers; and
- Bike mechanics.

## **Environmental Law**

The environmental law industry is a specialized sector of the legal profession that focuses on environmental regulations, policies, and issues. Environmental lawyers work with businesses, government agencies, and non-profit organizations to ensure compliance with environmental laws and regulations and advocate for stronger environmental protections. The industry encompasses many legal areas, including pollution control, energy law, natural resource management, land use, and climate change. The environmental law industry is essential for promoting environmental sustainability and protecting public health. It offers job creation and economic growth opportunities by encouraging the development of innovative technologies and sustainable practices.

Featured careers in environmental law:

- Regulatory affairs specialists;
- Arbitrators and mediators;
- Chief sustainability officers;
- Compliance managers;
- Environmental lawyers; and
- Energy auditors.

## **Activism**

Environmental activism seeks to promote environmental sustainability and protect natural resources. Environmental activists raise awareness about environmental issues, advocate for policy changes, and mobilize public opinion to address environmental problems. The movement encompasses many activities, including protests, boycotts, lobbying, and education campaigns. Environmental activism has played a significant role in shaping environmental policies and practices, leading to the development of regulations to protect air and water quality, reduce greenhouse gas emissions, and preserve natural habitats. The environmental activism movement offers individuals opportunities to promote environmental sustainability and advocate for stronger environmental protections.

Featured careers in environmental activism:

- Rural agricultural development facilitator;
- Park ranger;
- Conservation scientist;
- Youth activist mentor; and
- Environmental science educator..

## **Career and Technical Education**

In the future, every job will be a climate job. To prepare and train students to do this work, schools can create career and technical education (CTE) programs that focus on meeting the needs of their local community.

CTE programs can play a crucial role in promoting climate solutions by providing students with the skills and knowledge they need to work in industries focused on environmental sustainability. CTE programs can offer training in green technologies—such as renewable energy, energy efficiency, and sustainable agriculture—essential for mitigating climate change. By teaching students practical skills in these areas, CTE programs can help prepare them for careers in the rapidly growing green economy.

In addition to technical skills, CTE programs can provide students with a foundation in sustainability and environmental literacy, including understanding the impacts of climate change and the need for sustainability practices in various industries. This can also help prepare students to be leaders in developing and implementing climate solutions.

CTE programs can collaborate with industry partners, such as environmental consulting firms, green technology manufacturers, and sustainable agriculture

companies, to provide students with real-world experiences and help them establish connections in the industry. These partnerships can also help to bridge the gap between education and employment, ensuring that students are prepared to contribute to developing and implementing climate solutions.

## Messaging for Other Audiences

When creating a message, it is important that educators understand how to convey connections between the classroom and climate action before integrating it into their unit of study. Talking about climate change with families and communities can be daunting; it is a complex and often politicized issue. However, it is essential to engage with a diverse group of people to raise awareness and inspire action.

When discussing climate change with the public, educators should present scientific evidence and discuss real-world examples of climate change impact. They should acknowledge that while there are natural climate variations, the recent changes in temperature, sea level rise, and frequency of extreme weather events are not natural; they are caused by human activities. It is also essential to communicate that everyone has a role in addressing the issue, whether individually or collectively.

Finally, educators must remain hopeful and highlight the benefits of transitioning to a more sustainable, clean-energy future. By engaging with the public in a respectful and meaningful way, they can build support for climate action and positive change.

For more information and guidance on messaging, see [We Make the Future's Climate Action Digital Toolkit](#).

## Families

Remember that caregivers care about their child's academic and emotional well-being, so tailor your communication to address those specific interests. Here are some things to consider when communicating with families:

- Be explicit in how you are using your chosen climate action issue or resource to develop skills connected to your state standards.
- It can be a little scary to think about how your child might be affected emotionally by talking about such a serious topic (especially if the student is young or has a history of mental health concerns), so be upfront with sharing your intent to focus on solutions and empower students by letting them lead the inquiry based on their interests and individual needs.
- Reassure parents that the exploration will be based on scientific facts, not opinion, and will be framed in a positive, solution-oriented way and provide hope.

- Finally, do not forget to invite them to be part of the exploration, where appropriate, and to share their experiences/expertise on the topic with you and their child.

### **Administrators**

Administrators have different interests and concerns, so consider their needs when communicating about your upcoming exploration. Here are some things that you might include in communication to them to meet their needs:

- Make a clear connection to your state standards and existing curriculum maps.
- Explain how your exploration provides natural connections to social-emotional learning skill development.
- Consider sharing resources you plan to use with them in advance, so they know what to expect if they hear anything from parents.
- Explain how you consider the students' developmental needs in your planning process.
- Consult with them on your plan for engaging with parents, colleagues, and community members, and be sure to share if you have any concerns or questions or are in need of support.
- Invite them to be part of the study in your classroom.

### **Colleagues**

It's important to provide colleagues with an opportunity to understand the topics you are exploring and support you. These are ideas to consider when planning how to communicate with your colleagues:

- Provide them with an overview of your plan and how it might affect their work.
- Solicit their expertise with the topic and identify points of common interests or goals.
- Explain your goals for how this exploration will connect to skill development and standards.
- Identify people on your special education team and anyone else who supports your students. Ask them for support in helping you to meet the needs of all students.

### **Community Members**

It may be appropriate for you to share your exploration with members of your community as part of your work bringing local connections into the classroom and/or sharing your students' learning with the public. Consider these talking points and action items:

- Explain how important it is for students to connect with their community.

- Demonstrate your intention to have this be an opportunity for students to lead the exploration.
- Invite guest speakers and groups to share resources or be part of the exploration, as appropriate.
- Identify points of collaboration with or support for the community.

## Supporting Rationale and Research

Agrawal-Hardin, N., & Green, M. (October 10, 2022). "[Why education must lead in addressing climate change.](#)" The Hechinger Report.

Akopian, N., Faggert, M., & Schifter, L. (2022). [K12 Education and Climate Provisions in the Inflation Reduction Act.](#) The Aspen Institute: Washington, DC.

Katz, E., Neuberger, J., & Schifter, L. (2022). [Education and Climate Provisions in the Infrastructure Investment and Jobs Act.](#) The Aspen Institute: Washington, DC.

Katz, E., Schifter, L. & La Pinta, A. (2020). [A State Policy Landscape: K12 Climate Action.](#) The Aspen Institute: Washington, DC.

K12 Climate Action Commission. (2021). [K12 Climate Action Plan 2021.](#) The Aspen Institute: Washington, DC.

## Resources

### General Resources for Climate Change

[Advancing Equity](#)

[Agriculture and Forestry | Green Careers | CareerOneStop](#)

[Climate Literacy: The Essential Principles of Climate Science](#)

[Digital Toolkit\\_ Climate Action.pdf](#)

[K12 Parent Climate Advocacy Toolkit - This Is Planet Ed](#)

[New Jersey Climate Change Standards](#)

[The Most Important Thing You Can Do to Fight Climate Change: Talk About It.](#) Ted Talk.

[Probable Futures website](#)

[Questions to Help You Start Taking Action](#)

[Research and resources from the Harvard Center for Climate Health and the Global Environment.](#)

[SubjectToClimate](#)

[United Nations: What Is Climate Change?](#)

[Yale Center for Climate Communications](#)

Career and Technical Education Standards

[Common Career Technical Core | Advance CTE](#)

Template

[Artifact 3: Progress Tracker](#)

## Submission Guidelines & Evaluation Criteria

*To earn this micro-credential, you must receive a passing score in Parts 1 and 3 and be proficient in all components in Part 2.*

### Part 1. Overview Questions (Provides Context)

**(300-500 words)**

*Do not include any information that will make you identifiable to your reviewers.*

Please answer all of the following questions:

1. What is the greatest environmental issue your local community is confronting, and why?
2. Can your school or district participate in or support any existing systems?
3. How is your school or district currently involved in supporting the community through environmentally conscious ways?
4. What kind of impact would it have on the community if your school or district got involved?

**Passing:**

The educator answers with a thorough and thoughtful response, including supporting details about their community's needs and the impact getting involved would have on the community.

## Part 2. Work Examples/Artifacts/Evidence

To earn this micro-credential, please submit the following three artifacts as evidence of your learning. See the rubric for the passing score.

*Do not include any information that will make you or your students identifiable to your reviewers.*

The goal of these artifacts is to develop and implement an initiative to help your community address a climate or environment-related issue.

Here are some examples of initiatives:

- Create a community vegetable garden and donate the produce to local shelters.
- Sponsor a club to adopt a street picking up litter.
- Have CTE students design and build air filters to help improve air quality. These can be donated to people in need.
- Plan a Career Day focused on industries that have green jobs.

### **Artifact 1: Create a Presentation**

Create a presentation that features one thing your school or district can do to help the community while addressing a climate or environment-related issue. For your initiative to begin, you must first pitch it to your school or district leadership.

In your presentation, you must include:

1. Background information about the issue;
2. Background information about the community demographic and needs;
3. History of this issue in the community;
4. How your school or district can address this issue; and
5. If this issue is addressed, the impact it will have on the community.

### **Artifact 2: Partner with Stakeholders**

Take steps to partner with local stakeholders in the community to support and promote this initiative. Attempt to contact at least four people. Write a reflection on the process. For each stakeholder contacted, document:

- Who you contacted;
- Responses that you received;
- Partnerships that you initiated; and
- The outcome
  - If the partnership resulted in the stakeholder promoting the initiative, attach the promotion documentation.

In 200-400 words, reflect on what it was like to collaborate with stakeholders in the community by answering the following questions:

1. Were they receptive to the initiative? If not, did they provide a reason?
2. Do you feel the initiative will be more successful because you partner with community stakeholders? Why or why not?

**Artifact 3: Track Your Progress**

Implement the initiative and track the progress. Include the following items in your tracking and at least five tasks.

1. Task and Criteria for Success: What tasks need to be done and what is criteria for success?
2. Status: Not Started, In Progress, Completed
3. Completion Goal: When will each tasks end?
4. Stakeholders: Who participates in these tasks?
5. Resources: What is required to complete these tasks?
6. Reflection: What is the outcome of these tasks?

Optional Template can be found at [Artifact 3: Progress Tracker](#)

Part 2. Rubric

|  | <b>Proficient</b>  | <b>Basic</b>  | <b>Developing</b>   |
|--|--|---|---|
| <b>Artifact 1:<br/>Create a<br/>Presentation</b> | Presentation includes all five components:<br>- Background on the issue;<br>- Background on demographic needs;<br>- History of the issue in the community;<br>- How the issue can be addressed;<br>and | Presentation is missing one of the five components: -<br>Background on the issue;<br>- Background on demographic needs;<br>- History of the issue in the community;<br>- How the issue can be addressed; or<br>- The impact on the community. | Presentation is missing two or more components:<br>- Background on the issue;<br>- Background on demographic needs;<br>- History of the issue in the community;<br>- How the issue can be addressed; or<br>- The impact on the community. |

|  |  |   |   |
|--|--|---|---|
|  | - The impact on the community.   |   |   |
| <b>Artifact 2:<br/>Partner with Stakeholders</b> | There are four stakeholders and the log is recorded.<br><br>The reflection (200-400 words) includes answers to both questions. | There are three stakeholders and the log is recorded.<br><br>The reflection (200-400 words) includes answers to both questions. | There are less than three stakeholders and the log is recorded.<br><br>The reflection (200-400 words) does not include answers to both questions. |
| <b>Artifact 3:<br/>Track Your Progress</b>       | Progress tracker includes all six elements and at least five tasks.  | Progress tracker includes all six elements but only four tasks.   | Progress tracker does not include all six elements.   |

### Part 3. Reflection

**(300-500 words)**  
*Do not include any information that will make you identifiable to your reviewers.*

For tips on writing a good reflection, review this resource:  
[How Do I Write a Good Personal Reflection?](#)

Answer all of the following questions:

1. What was the biggest roadblock to creating a meaningful partnership with community stakeholders?
2. What was the biggest success in the process to partner with community stakeholders?
3. If you were to complete this project again, what would you do differently?

**Passing:**  
 The educator answers with a thorough and thoughtful response, including supporting details about their project and the process of partnering with community stakeholders.