

Gardening in Our Warming World: Youth Grow! Unit Four "Let's Do It!" Facilitator Guide



Introduction

In **Unit THREE: Community Action** your group participated in a series of experiential activities leading up to the final preparation and presentation of a group video project. First, they explored videos showcasing communities taking action to address climate change issues, planning for resiliency and implementing ways to reduce their carbon footprint. These videos were also used as a tool to provide technical examples of how to your group would produce their own videos featuring local citizens taking action against climate change. During the video production process, your group reflected on their personal stewardship, teamed up to practice interview skills, and sought out others in their local community to interview, who are inspirational and promoting positive change.

In Unit FOUR: Let's Do It! provides activities for youth of all skill levels, to explore opportunities that help them to plan and prepare to take action for their future by taking a more informed, less alarming approach. Using what they have learned in this program, this unit offers tools and strategies for youth to become leaders who go forth and teach others in their own communities. With a greater awareness of their sense of place and understanding of community resiliency, methods of sustainability and a systems approach, youth will be more self-confident making positive change. In doing so, they have matured into young leaders who will share this knowledge to help others to forge pathways to a better future.

Target Objectives

- ✓ Define and distinguish differences between short, medium and long-term outcomes.
- ✓ Demonstrate a sense of place within a system and personal impacts that promote positive outcomes.
- ✓ Implement a plan that increases environmental sustainability and promotes a greener world.
- ✓ Formulate a plan for Climate Resiliency.
- ✓ Determine cause and effects of one's actions and justify a commitment towards positive changes.
- ✓ Promote climate change action by taking the lead and educating others on building a more sustainable future.

Building Strong and Vibrant New York Communities

Learning Activities

4.1 I Can Do It: My Sense of Place (all skill levels).....page 4
 4.2 Ten Simple Things We Can Do NOW (all skill levels).....page 8
 4.3 The Big Picture Action Project-Making a Plan for Climate Resiliency (Intermediate, Advanced).....page 14
 4.4 Lead by Example- Planning and Leading an Educational Event (Advanced).....page 24

Thriving Model Attributes

Youth Engagement:

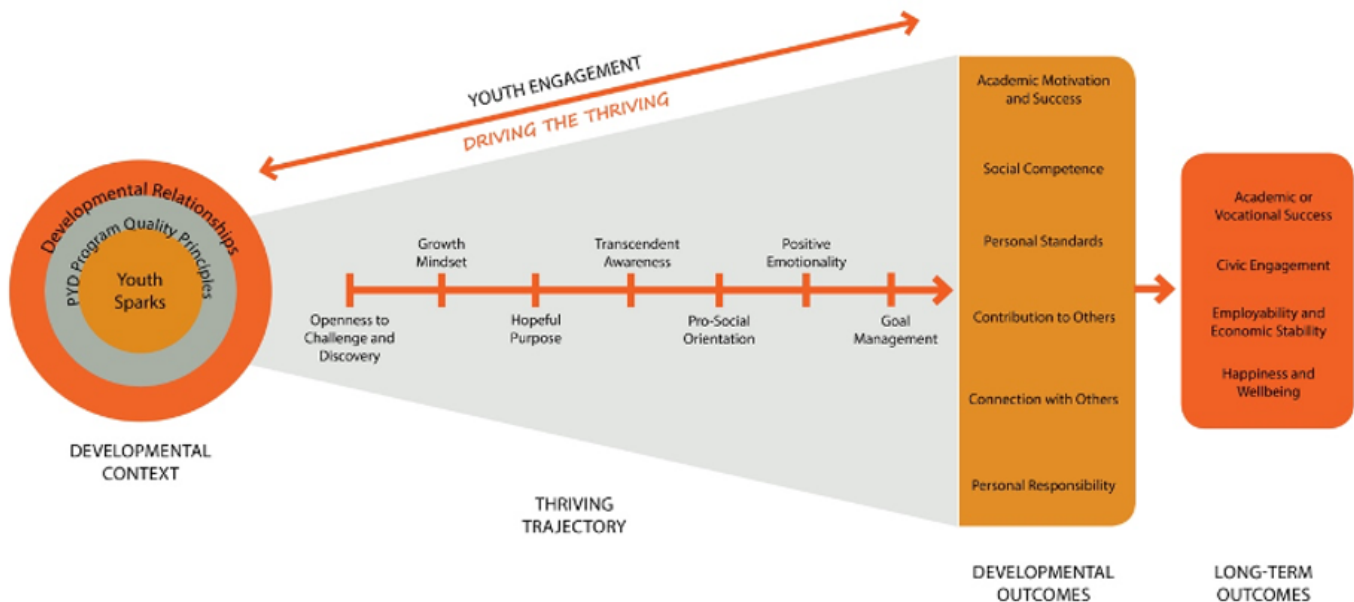
- Growth mindset
- Hopeful purpose
- Transcendental Awareness
- Goal Management

Developmental Outcomes:

- Social Competence
- Contribution to others
- Connection to others
- Personal responsibility

Long-Term Outcomes:

- Civic Engagement
- Vocational Success
- Happiness and Wellbeing



Keep the discussion Going About Climate Change with Youth

As climate change discussion and beliefs may differ, it is advisable for educators and youth leaders to be ready to respond to those feeling climate anxiety or those in need of factual knowledge. To provide the public with awareness of climate change risks, we need to frame conversations around climate change impacts and the capacity of our community to adapt and be engaged. We need not have all the answers to play a critical role in addressing climate change, as this is an ever-changing, complex topic that still has unknown factors.

Facilitate conversations and dialogue that allow youth to fully engage and express personal viewpoints, and to process any emotional response such as worry, fear, interest, and curiosity which may emerge in their understanding about climate change and their vision of the future. We can promote a positive tone while using scientific evidence, when participating in discussions around the critical nature of the issue and offer strategies for curbing and adapting to climate impacts.



Photo by CCE Delaware, 2019 Catskills Youth Climate Summit



4.1 I Can Do It!

Skill Level

Intermediate/Advanced

Learner Outcomes

- Distinguish differences in opinions and identify how to accept and learn from diverse voices.
- Illustrate ways one can make a difference or feel they do not have any influence to do so.
- Demonstrate/dramatize creativity and imagination in responses.
- Share ideas and influence each other in positive ways.

Education Standard(s)

- NS.5-8.6 Personal and Social Perspectives: Personal health, Benefits, Science in society
- NS.9-12.6 Personal and Social Perspectives: Personal and community health, Environmental quality, Natural and human-induced hazards, Science in local challenges

Success Indicators: Identify how to bridge differences and seek a common ground on issues we care most about.

Life Skills: Self-responsibility, character, self-discipline, relating to others

Time Needed: 50 minutes

Materials List: Two Posters, one stating “I can do it!” and the other stating “I don’t think I have any influence”

Space: A room or outdoor space where you can hang 2 posters and room for group to move about.

Suggested Group Size: 12-15 or more

Acknowledgements

Adapted by Cornell Garden-Based Youth Grow; Habits of the Heart, by Parker Palmer

Introduction

In this activity we aim to bring about a sense of where young people feel they have influence. We encourage lively discourse and in particular, the ability to influence and inspire one another. Rather than focus on “right and wrong” we want to focus on personal agency.

The food system and how it is affected by global warming might be viewed as a microcosm of our democracy! There are issues related to how food is grown, by whom, how far it goes to get to where it’s going, how much fuel that requires, how people are treated as farmworkers, who does not have enough to eat – and that can get overwhelming pretty quickly. And yet, as with many things in our lives, the more we learn and the more we genuinely engage with one another, the greater the sense of personal voice and agency, and the greater the capacity to

create community – and make positive changes in our food system, environment, and our lives.

Opening Questions:

Is this something you believe you can impact? If so, how? If not, what more do you need?

Background Information- Habits of the Heart (by Parker Palmer)

1. An understanding that we are all in this together. Biologists, ecologists, economists, ethicists and leaders of the great wisdom traditions have all given voice to this theme. Despite our illusions of individualism and national superiority, we humans are a profoundly interconnected species—entwined with one another and with all forms of life, as the global economic and ecological crises reveal in vivid and frightening detail. We must embrace the simple fact that we are dependent upon and accountable to one another, and that includes the stranger, the “alien other.” At the same time, we must save the notion of interdependence from the idealistic excesses that make it an impossible dream. Exhorting people to hold a continual awareness of global, national, or even local interconnectedness is a counsel of perfection that is achievable (if at all) only by the rare saint, one that can only result in self-delusion or defeat. Which leads to a second key habit of the heart...

2. An appreciation of the value of “otherness.” It is true that we are all in this together. It is equally true that we spend most of our lives in “tribes” or lifestyle enclaves—and that thinking of the world in terms of “us” and “them” is one of the many limitations of the human mind. The good news is that “us and them” does not have to mean “us versus them.” Instead, it can remind us of the ancient tradition of hospitality to the stranger and give us a chance to translate it into twenty-first century terms. Hospitality rightly understood is premised on the notion that the stranger has much to teach us. It actively invites “otherness” into our lives to make them more expansive, including forms of otherness that seem utterly alien to us. Of course, we will not practice deep hospitality if we do not embrace the creative possibilities inherent in our differences. Which leads to a third key habit of the heart...

3. An ability to hold tension in life-giving ways. Our lives are filled with contradictions—from the gap between our aspirations and our behavior, to observations and insights we cannot abide because they run counter to our convictions. If we fail to hold them creatively, these contradictions will shut us down and take us out of the action. But when we allow their tensions to expand our hearts, they can open us to new understandings of ourselves and our world, enhancing our lives and allowing us to enhance the lives of others. We are imperfect and broken beings who inhabit an imperfect and broken world. The genius of the human heart lies in its capacity to use these tensions to generate insight, energy, and new life. Making the most of those gifts requires a fourth key habit of the heart...

4. A sense of personal voice and agency. Insight and energy give rise to new life as we speak out and act out our own version of truth, while checking and correcting it against the truths of others. But many of us lack confidence in our own voices and in our power to make a difference. We grow up in educational and religious institutions that treat us as members of an audience instead of actors in a drama, and as a result we become adults who treat politics as a spectator sport. And yet it remains possible for us, young and old alike, to find our voices, learn how to speak them, and know the satisfaction that comes from contributing to positive change—if we have the support of a community. Which leads to a fifth and final habit of the heart...

5. A capacity to create community. Without a community, it is nearly impossible to achieve voice: it takes a village to raise a Rosa Parks. Without a community, it is nearly impossible to exercise the “power of one” in a way that allows power to multiply: it took a village to translate Parks’ act of personal integrity into social change. In a mass society like ours,

community rarely comes ready-made. But creating community in the places where we live and work does not mean abandoning other parts of our lives to become full-time organizers. The steady companionship of two or three kindred spirits can help us find the courage we need to speak and act as citizens. There are many ways to plant and cultivate the seeds of community in our personal and local lives. We must all become gardeners of community if we want democracy to flourish.

Before the Activity

Prepare the two posters and review the background information on “**Habits of the Heart**”, and how you will relate this information to the group and the statements that go along with this exercise, using sustainable food systems as our goal. Place posters on the wall at opposite ends of a room or space.

Let’s Do It!

1. Welcome everyone, introduce the activity and explain that we will be discussing way we can sustain our food system, and what we need to do promote sustainability. We will learn about Parker Palmer’s “**Habits of the Heart**” and reflect on our opinions, come together to better understand other’s points of view, and how we can work together to create positive change as a community.
 - Explain that a sustainable food system is a system that cares for the earth and produces food in a way that supports economic, environmental, social and nutritional well-being. It is a very important part in our actions against climate change. As young people, you play multiple and important roles in the cultivation of sustainable food systems: as consumers, as community leaders, and as agents of change.
 - Ask opening questions: Is this something you believe you can impact? If so, how? If not, what more do you need?
 - Share perspectives by Parker Palmer, from the book *Healing the Heart of Democracy: The Courage to Create a Politics Worthy of the Human Spirit*. (2011, Jossey-Bass, San Francisco, CA).
 - According to Palmer, we must find ways to bridge our differences and we must seek patches of common ground on the issues we care most about. He emphasizes ‘habits of the heart’ which are necessary for public discourse. These are...
 - An understanding that we are all in this together.
 - An appreciation of the value of “otherness.”
 - An ability to hold tension in life-giving ways.
 - A sense of personal voice and agency.
 - A capacity to create community.

(Details about these habits are in the background information section of this document)
2. Begin the activity: Point out the two posters on the wall (or place) at opposite ends of your space.
 - Explain that you are going to read out a series of statements.
 - Point out the posters, one stating “I Can Do It!” and the other “I don’t think I have any influence.”
 - Explain that the group will be asked to stand along an imaginary line that runs between these two statements and that everyone should try to position themselves along that imaginary line based on their own sense of their personal agency.
 - Explain “The Power of Two Feet.” This means participants are encouraged to influence and encourage one another by offering their ideas and help move others

along the spectrum from having no influence, to believing that they could have an impact.

Encourage specific examples. For example, with “I can live well while reducing my impact on the environment” - what are specific ways? Growing organically in a home garden or helping a grandparent by picking up something at the farmer’s market ‘count!’ Inspire creativity and imagination in responses.

- Read out the statements one at a time. Do not rush! Allow for back and forth discussion and emphasize positive discourse.

Statements:

“I can live well while reducing my impact on the environment.”

“I have the ability to feed people on the planet.”

“I have important influence through my food choices.”

“My choices impact people around the world.”

“I have influence in my own community.”

“I could play a small part in acting against climate change.”

“I could play a small part in influencing how people grow or obtain food.”

“I could play a large part in modeling what food system leadership looks like.”

Talk It Over

Share

When you have gone through the statements, bring the group back together to debrief.

Reflect

Begin by reviewing the activity itself and then go on to discuss how people felt. Did some feel as if they had more personal agency than they thought? Were there any surprises?

Stimulate reflection and discussion. Ask those at the endpoints of the room to explain why they have chosen those places. Ask someone near the center to explain why they are neutral.

Apply

What do you need, if anything, for you to make an impact?

Variations

Ask youth to come up with their own statements and then one at a time, say them out loud to encourage discourse and positive influence.

Learn More

Visit <http://gardening.cals.cornell.edu/lessons/curricula/youth-grow/links/> for a list of organizations that have programs that engage youth in creating sustainable food systems. If you live near one of these organizations, get in touch and find out how you can get involved!



References: Parker Palmer, *Healing the Heart of Democracy: The Courage to Create a Politics Worthy of the Human Spirit*. (2011, Jossey-Bass, San Francisco, CA).

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Reviewers: Marcia Eames-Sheavly



4.2 Act Towards Climate Change with “Ten Simple Things” and More!

Skill Level: All Skill Levels

Learner Outcomes

- Recognize the relationships between personal actions, evidence of global warming, climate change facts and sustainable methods.
- Explore and take different actions that foster sustainability in the natural world and promote sustainability in our everyday lives and in the garden.
- Connect with others to formulate solutions for sustainability.

Education Standard(s)

- NS.K-4.6; NS.5-8.6 Personal and Social Perspectives: Personal health
- NS.9-12.6 Personal and Social Perspectives: Personal and community health, Environmental quality, Science in local challenges

Success Indicators: Reflect on everyday practices and act to improve home and garden sustainability.

Life Skills: Community service, self-responsibility, healthy lifestyle choices

Time Needed: 30 minutes, more depending on planning activity

Materials List

What Do I Do Now and What Can I Do Later? Handouts, one for each person, pens, pencils, plain paper, sticky note pads, chart paper for planning.

Space: A garden that the group has been working in and or a place to write in the garden or indoor space.

Suggested Group Size: 12-15 or more

Acknowledgements

Adapted from Climate Change in the Garden: One Seed at a Time: Prevention and Mitigation Benchmarks, Cornell Garden-Based Learning

Introduction

In this two-part activity youth begin by discussing the causes and effects of climate change. Through a survey, they will reflect, share and brainstorm actions they are currently taking and will take (in both the near and far future) to prevent and lessen effects of global warming. The garden connection will continue to illustrate how we can act to prevent and mitigate climate change in the future.

Opening Questions:

- Think about the human activities that impact climate. How can we change and/or adapt what we do to responsibly address global and local climate issues and sustain a healthy community?

- How can we initiate ways and teach and lead others to do the same?
- What steps can we take to establish ecological sustainability in our garden?

Background Information

Before the Activity: review and gather materials, handouts. Cut each copy of the handout **What Do I Do Now and What Can I Do Later?** into thirds, for each person to have one of these parts:

- A. In the last week I took these climate change actions.
- B. Next week I will take these climate change actions.
- C. As an adult, I will take these climate change actions.

Use this list of “Ten Simple Things” examples to guide your discussion, and/or expand upon and continue the discussion in more detail. Consider the skill level of your group. Those marked with an asterisk are more appropriate for intermediate and/or advanced skill levels.

1. Take a hike, ride a bike.
2. Grow Something and Eat It. Grow vegetables and herbs in your garden or in containers on your porch or terrace. This will help you eat more plants and cut down trips to the supermarket. Use organic methods, compost and mulches.
3. Get wormy. Home composting helps lighten the burden on landfills and in the garden. Build an indoor worm bin or compost system in your yard for all your kitchen and garden waste.
4. Plant Something for bees and pollinators, even in containers!
5. Recycle something. Recycling paper, cardboard, cans, and bottles also helps reduce the greenhouse gas emissions associated with landfills.
6. Think before you buy. Choose products that generate the least waste and make sure that you compost all organic waste.
7. Work with your family to buy from local farms and markets. Food transportation causes tremendous amounts of greenhouse gas emissions.
8. *Unplug and shut down: work with your family to:
 - Reduce electricity and gasoline consumption by using more energy-efficient products.
 - Replace regular outdoor and indoor light bulbs with compact fluorescent bulbs.
 - Keep outdoor automatic light timers instead of keeping lights on at night.
 - Use solar- powered path lights and garden products.
 - Ask your family to have a building energy audit.
9. *Stand up and say something.
 - Contact your elected officials at the local, state, and federal levels and urge them to implement a strong plan of action to combat global warming, such as placing mandatory limits on the nation’s global warming pollution and raising fuel economy standards for cars and sport utility vehicles.
10. *Invent a simple tool or repurpose an object to replace plastic.

Let’s Do It!

Part One

Introduce this activity to survey your group. Distribute Part A of the **What Do I Do Now and What Can I Do Later?** handout, ask them to mark checks next to each thing they did in the past week. Use chart paper to jot down their other actions taken that are not on these lists.

In the last week I took these climate change actions:

- Took the bus, walked or ride a bike rather than being driven by car.
- Recycled or repurposed paper.
- Recycled or repurposed plastic.
- Unplugged electric cords when not in use and shut off lights when I left the room.
- Did not let water run excessively.
- Composted food scraps.
- Other action(s) I took.

When completed, have them share their actions with the whole group. Ask:

- Is there something **not** on this list you have done that you can share with the group?

Next, ask them to complete Part B of the **What Do I Do Now and What Can I Do Later?** handout.

Next week I will take these climate change actions:

- Grow something and eat It.
- Join a garden club or one that cares about the environment.
- Take a hike, ride my bike, walk.
- Unplug and go outside.
- Start a compost bin.
- Plant for Pollinators.
- Stand up and say something.
- Recycle, repurpose or reuse something I would not usually.
- Invent a simple tool or repurpose an object to replace plastic.
- Other action(s) I will take.

When completed, have them share their actions with the whole group. Ask:

- Is there something **not** on this list you will do that you can share with the group?
- Is there something on the list I would like to do, but may not be able to right now?

Lastly, ask them to think about their future selves, and complete Part C of the **What Do I Do Now and What Can I Do Later?** handout. If needed, explain that there are things on this list that are free or cost very little, however some may require time and money. Pose the question "As an adult, which of these would you like to commit to doing?"

In the future, I will consider taking these climate change actions:

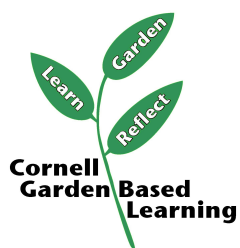
- Grow food organically.
- Practice sustainable gardening and landscaping.
- Use solar energy and other energy efficiency for my home.
- Recycle, repurpose or reuse,
- Compost at home and work.
- Drive a hybrid or electric car.
- Use rideshare / carpool when possible.
- Use LED lighting.
- Use mass transit.
- Eat more plants.
- Plant for Pollinators.
- Other action(s) I will take.

Part Two

The Garden Connection

- Make the connection of these everyday 10 Simple Things to your garden program.
 - Write the headings of these ten steps on chart paper to organize garden tasks and plan ultimate goals. Make modifications to best meet the needs of your program and skill level of your group.
 - Brainstorm to expand this list. Use sticky notes for participants to jot down additional tasks and ideas for each step, and have them add their ideas under the appropriate heading on the chart paper. Your group may come up with dozens of additional ways to improve sustainability in your garden program!
 - Reorder these steps to meet the needs of your program, which can be a wonderful group planning activity and road map to achieving your garden/program goals. This will also help you assess the ecological sustainability of your garden and program.
 - Consider the skill levels of these tasks for a more age-appropriate discussion and action, and that some of these tasks may require family or adult cooperation.
1. Right Plant, Right Place= fewer inputs.
 - Look at the design and eco-system of your garden, be sure plants are located where they will thrive best: sun/shade.
 - Think low maintenance by replacing lawns with meadow plants, groundcovers, or a wildflowers patch.
 2. Keep it Healthy!
 - Have the soil tested by your local Cooperative Extension office for proper pH and add amendments as needed.
 - Choose pest and disease resistant plant varieties.
 - Read plant tags and seed packets to learn about each plant's light, water and other requirements.
 - Place plants according to the size they will grow into, so they will not overshadow or crowd out neighboring plants.
 3. Organic Matters!
 - Use organic matter to build up the soil.
 - Replace synthetic fertilizers with compost and organic mulches.
 - Feed your garden with organic, slow-release fertilizers when an extra boost is needed.
 4. Plant Pollinators and Natives!
 - Invite beneficial insects and pollinators by selecting plants that attract them.
 - Remove invasive species from the garden and plant native ones instead.
 - Plant a diverse range of native blooming and fruiting plants in your garden
 5. Save Water! During summer months and droughts, water and resources become scarce. Save water by:
 - using plants that are drought tolerant
 - adding mulch or organic matter around plants
 - installing rain barrels
 - watering earlier or later in the day when it is not as hot
 - using drip irrigation
 6. Plant a Rain Garden- Rain gardens capture storm water runoff helps prevent polluting local lakes, streams, and coastal waters.
 7. Reduce Waste with a Compost System.
 - Compost kitchen and garden waste.
 - Recycle lawn clippings and leaves in your compost pile or bin.

- Do not add diseased plants to your compost and learn about what can and cannot be composted.
8. Plant Trees! - Commit to planting a certain number of trees each year.
 9. Unplug! - Use push mowers, hand clippers, and rakes
 10. Keep a Garden Journal.
 - Write down observations and keep track of plant lists, completed and “to do” tasks.
 - Plant tags and seed packets include useful information and plant facts you may need to refer to: save them and tape in your journal pages.



References

Cornell Garden-Based Learning, Climate Change in the Garden: One Seed at a Time

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Reviewer: Marcia Eames-Sheavly



4.2. Handouts: What Do I Do Now and What Can I Do Later?

A. In the last week I took these climate change actions:

- Took the bus or walked to school rather than being driven by car
 - Walked or rode a bike to a friend's house rather than driven by car
 - Recycled or repurposed paper
 - Recycled or repurposed plastic
 - Unplugged electric cords when not in use and shut off lights when I left the room
 - Did not let water run excessively
 - Composted food scraps
 - Other action(s) I took _____
-

B. Next week I will take these climate change actions:

- Grow something and eat It
 - Join a garden club or one that cares about the environment
 - Take a hike, ride my bike, walk
 - Unplug and go outside
 - Start a compost bin
 - Plant for Pollinators
 - Stand up and say something
 - Recycle, repurpose or reuse something I would not usually
 - Invent a simple tool or repurpose an object to replace plastic
 - Other action(s) I will take _____
-

C. As an adult, I will take these climate change actions:

- Grow food organically
- Practice sustainable gardening and landscaping
- Use solar energy and other energy efficiency for my home
- Recycle, repurpose or reuse Compost at home and work
- Drive a hybrid or electric car
- Use rideshare / carpool when possible
- Use LED lighting
- Use mass transit
- Eat more plants
- Plant for Pollinators
- Other action(s) I will take _____



4.3 The Big Picture- Action Project: Making a Plan for Resiliency

Skill Level

Intermediate/Advanced

Learner Outcomes, Youth will:

- Utilize the interview process to access information, share knowledge and seek ways to work together for positive change.
 - Practice interview skills and apply critical thinking skills to identify a problem and pose questions for investigation.
 - Relate existing knowledge about climate change action practices and demonstrate ways to address issues.
1. Identify and predict the short and long-term problems that affect one or more systems, that are a result of significant changes of climate and global warming: food system, environment, eco-systems, infrastructure, public health, and the health and well-being of all living things.
 2. Recognize factors that contribute to the problems and brainstorm for solutions.
 3. Compare and contrast existing community action plans, to be used as a model for future planning.
 4. Create an Action Plan resiliency with realistic goals and identify possible obstacles and solutions that may get in the way of achieving objectives.
 5. Identify valuable community partners who can contribute to and help implement an Action Plan for resiliency.

Education Standard(s)

- MS-ETS1, HS-ETS1-2. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution.
- MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.
- MS-ETS1-3, HS-ETS1-3. Analyze and interpret data to identify the best characteristics that can be combined into a new solution to better meet the criteria for success. Evaluate a solution to a complex real-world problem including safety, as well as possible social, cultural, and environmental impacts.
- MS-ESS3-2, HS-ESS3-1. Analyze and interpret data on natural hazards to forecast future catastrophic events and mitigate their effects. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.
- HS-ESS3-5. Analyze data and the results from global climate models to make an evidence-based forecast future impacts to Earth systems.

Success Indicators

Youth identify and provide solutions to real world problems that affect communities.

Life Skills

Resiliency, goal setting, problem solving, service learning, responsibility, teamwork

Time Needed

One hour for introductory activity and research; Group Work on Action Projects will vary

Materials List

- Devices with Internet access to watch videos and read online resources for research.
 - Devices to develop digital presentation, and/ or materials to create visual aids: poster board, pens and colored markers.
 - Three pages of flip chart paper, wall or white board for brainstorming ideas and enough post it note pads and pens for each person. On each page of flip chart paper or in columns on a white board, write the three opening questions so each question has its own space.
 - Online resources, based on the theme that each small group will choose for their Action Project:
1. **Community Climate Resiliency Action Plan:**
 - NYS Dept. of Environmental Conservation, Adaptation to Climate Change <https://www.dec.ny.gov/energy/100236.html>
 - U.S. Climate Resilience Toolkit
 - Meet the Challenges of a Changing Climate: <https://toolkit.climate.gov>
 - Building Resilience in the Northeast: <https://toolkit.climate.gov/regions/northeast/building-resilience-northeast>
 2. **Food System Action Plan:**
 - **Food Span:** Develop a Food Citizen Action Plan: <http://www.foodspanlearning.org/lesson-plans/final-project/>
 3. **Invasive Species Action Plan:**
 - **DEC Invasive Species Education & Outreach Initiatives:** <https://www.dec.ny.gov/animals/114620.html>

Action Project Best Practices resources and guidance

- **Earth Force Process:** http://actioncivicscollaborative.org/wp-content/uploads/2013/07/EF_2013-curriculum-overview.pdf
- **Southeast Michigan Stewardship Coalition:** This group uses a place-based education approach, and typically starts with an “essential question” (ex: a youth-led research question) in a particular area of interest: <https://semiscoalition.org/placebased-curriculum/>
- **Participatory Action Research with Youth:** This is a general description of the process that both of these organizations use with community partners: <https://youthactivismproject.org/wp-content/uploads/2018/05/Youth-Activism-Project-YPAR-Guide.pdf>

Space

Appropriate space and technology and internet access and place for groups to plan and develop presentations or posters or present the project.

Suggested Group Size

15-20 or more

Introduction

Actions to address climate change may be a result of destruction and displacement from unexpected extreme weather events, impacts from invasive species and issues that arise in our food system. Communities are taking action to plan for such future impacts and catastrophic

events. This activity will build on the **Introduction to Climate Resiliency** in Unit 2, where your group learned how local and global communities are preparing for the future. Climate Resiliency, defined as the power for communities to understand stresses that occur as a result of a climate change event, and is how a plan is cultivated to be better prepared, to adapt, reorganize, and increase sustainability for the future.

In this activity, small groups or 3-5 will work together to delve deeper, research and brainstorm solutions that help prepare for resiliency in an area they are interested in. Each small group will create and present an Action Plan, based on their theme of choice:

- Community Climate Resiliency Action Plan
- Food System Action Plan
- Invasive Species Action Plan

Opening Questions

Ask opening questions to spark interest in which theme participants are interested in:

1. Have you or someone you know been affected by extreme weather-related events (flooding, hurricanes, etc.) and how, if at all were you or they prepared for it?
2. How do you see changes in climate change problems with our food system?
3. Can you name an invasive plant or insect that is new to where you live? How do you think they got here?

Background Information

Before the Activity

- Prepare materials and handouts.
- Provide or suggest devices (mobile phone, tablet, laptop) with Internet access, video capability. If using digital presentations or online collaboration, access to applications, PowerPoint or other presentation software. Participants may provide their own or use a computer lab at a school or library.
- Review introductory videos and Action Project Best Practices resources.

Let's Do It!

A. Steps 1-5: Introduce and Launch the Activity (about one hour)

1. Introduce the activity by asking participants to recall the activity in Unit 2 **Introduction to Climate Resiliency**, where they discovered how people in communities and around the world are addressing climate change issues through making residency plans for the future.
 - a. Have the group discuss what they learned from this earlier activity and who or what actions may have inspired them to do more.
Optional: have participants write their recalled responses on sticky notes and post them in the room next to the flip chart paper, wall or white board you will be using in Step 2, brainstorming ideas.
 - b. Explain that you will be working in small groups to create an Action Project, very much like those resiliency projects you learned about in Unit 2. If needed, explain what an Action Project is. Use the **Action Project Best Practices** in the Materials List for guidance.
 - c. Before breaking down into small groups, explain that you will be brainstorming ideas for the small group activity, to see what themes of the Action Plans will be about.
2. Ask the opening questions, one at a time. Each time you ask the question, have students transcribe their answers onto sticky notes, and have them take turns

bringing the sticky notes up to the corresponding white board or flip chart after you ask each question. For question #1 they can reference one of the videos they watched from Unit 2 if they do not know of anyone personally.

Note: If your group did the optional recall activity in Step 1a, encourage them to move those sticky notes over to the new corresponding board or flip chart.

3. Ask for volunteers to come up and read the sticky notes, once they are all posted.
4. After step 3, ask the group to consider which of these 3 questions they feel most passionate about, and which theme they would like to develop as an Action Plan.
5. Create small groups of 3-5 based on theme choices, by either having participants raise their hands to choose a topic: 1. Extreme Weather and Community Resilience 2. Food Systems or 3. Invasive Species.

B. Steps 1-3 Group Work (Time varies; an adult leader should help guide the small groups in this process)

1. Break down into small groups and have each group pick an activity from a relevant resource listed below, and explain how they can use this and other research to plan their Action Projects :

Community Climate Resiliency Action Plan:

- NYS Dept. of Environmental Conservation, Adaptation to Climate Change
<https://www.dec.ny.gov/energy/100236.html>
- U.S. Climate Resilience Toolkit Meet the Challenges of a Changing Climate:
<https://toolkit.climate.gov>
- Building Resilience in the Northeast:
<https://toolkit.climate.gov/regions/northeast/building-resilience-northeast>

Food System Action Plan:

- Food Span: Develop a Food Citizen Action Plan:
<http://www.foodspanlearning.org/lesson-plans/final-project/>

Invasive Species Action Plan:

- DEC Invasive Species Education & Outreach Initiatives:
<https://www.dec.ny.gov/animals/114620.html>

2. Hand out the “**Action Project Worksheet**” and weblinks for groups to research and/or do prework activities.
3. Following the “**Action Project Worksheet**” each group will create a presentation, either digitally or using visual aids.

Talk It Over:

Share

3. Following the “**Action Project Worksheet**” each group will create a presentation, either digitally or using visual aids.
4. Groups will take turns sharing their Action Projects.

Reflect

- What did you learn about preparing for extreme weather-related and catastrophic events?
- How can we keep our food system intact when climate change causes issues?
- Although we cannot control weather-related issues that help introduce invasive species, what can we do to control invasive plants and insects to be sure their spread does not take over the environment?

Apply

What actions will you take to resolve or adapt to climate change problems in the future, as far as our food system, invasive species, and extreme weather?

References

Cornell Institute for Climate Smart Solutions: <https://climatechange.cornell.edu>
NYS Dept. of Environmental Conservation, Adaptation to Climate Change
<https://www.dec.ny.gov/energy/100236.html>
Invasive Species Education & Outreach Initiatives:
<https://www.dec.ny.gov/animals/114620.html>

Learn More

Action Project Resources

Earth Force Process: http://actioncivicscollaborative.org/wp-content/uploads/2013/07/EF_2013-curriculum-overview.pdf

Southeast Michigan Stewardship Coalition: This group uses a place-based education approach, and typically starts with an “essential question” (ex: youth-led research question) in a particular area of interest: <https://semiscoalition.org/placebased-curriculum/>

Participatory Action Research with Youth: This is a general description of the process that both of these organizations use with community partners: <https://youthactivismproject.org/wp-content/uploads/2018/05/Youth-Activism-Project-YPAR-Guide.pdf>

Climate Change Resources

Climate Smart Communities program: <https://climatesmart.ny.gov/>

Cornell Institute for Climate Smart Solutions: <https://climatechange.cornell.edu> includes links to resources and related curriculum in climate change science and solutions for youth and adults.

Cornell University Northeast Regional Climate Center <http://www.nrcc.cornell.edu>

Cornell University Sustainable Campus Climate Resiliency:
<https://sustainablecampus.cornell.edu/our-leadership/cap/climate-resiliency>

National Wildlife Federation, Climate-Smart Communities
<https://www.nwf.org/Our-Work/Environmental-Threats/Climate-Change/Climate-Smart-Conservation/Climate-Smart-Communities>

New York Invasive Species Research Institute: <http://www.nyisri.org/research/invasive-species-climate-change/>

Food Span: Lessons of our Food System, includes a final project where students develop a Food Citizen Action Plan: <http://www.foodspanlearning.org/lesson-plans/final-project/>
<http://www.foodspanlearning.org>

Responding to Climate Change in New York State (ClimAID)
<https://www.nyserda.ny.gov/About/Publications/Research%20and%20Development%20Technical%20Reports/Environmental%20Research%20and%20Development%20Technical%20Reports/Response%20to%20Climate%20Change%20in%20New%20York>

NYS Dept. of Environmental Conservation, Adaptation to Climate Change
<https://www.dec.ny.gov/energy/100236.html>

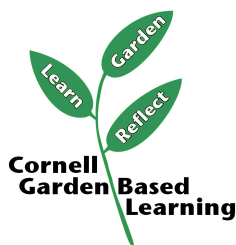
Our Climate Our Future: <https://ourclimateourfuture.org> find stories about how youth across the country have been affected by climate change and climate solutions made by and for young people.

The Alliance for Climate Education: acespace.org covers the science of climate change and how youth can take action.

U.S. Climate Resilience Toolkit

- Meet the Challenges of a Changing Climate: <https://toolkit.climate.gov>
- Building Resilience in the Northeast:
<https://toolkit.climate.gov/regions/northeast/building-resilience-northeast>

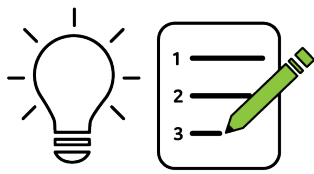
Wild Center Youth Climate Summit: <https://www.wildcenter.org/our-work/youth-climate-program/> Offers an annual Youth Climate Summit for local high school and higher education students.



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Author: Donna Alese Cooke
Reviewer: Marcia Eames-Sheavly, Ashley M. Helmholdt



Plan for Resiliency Action Project Planning Worksheet (4 pages)



What is an action project?

An action project is an opportunity for you work with a group to make a detailed plan for addressing climate resiliency. This can be a one-time event or ongoing project your youth group, school or community will take action against a climate change problem.

What are examples of action projects?

You will develop a plan of action, based on one of the topics you are interested in:

- Community Climate Resiliency Action Plan
- Food System Action Plan
- Invasive Species Action Plan

To demonstrate your Action Project, you can create:

- Short video
- Presentation
- Display
- Hands-on activity

Action Project Steps

Use the steps on the timeline chart to help manage your time and guide the progress of your action project.

Think: What are our goals and how will we get there?

- What is the environmental issue / problem?
- policy or practice to be changed:
- goal: (We want _____ to _____, which will result in _____.)
- strategy: (In order to achieve this, we will _____.)

Action Project Timeline

Step	Activity/Assignment	Due Date	Done?
1	A. Identify Your Project: What's the Problem? B. Identify Your Team and Others: Who are your partners? Include those in your community outside this group.		
2	Why do we need to do this? What do we want to change? Policy? Practices?		
3	What is my /our goal? I (We) want _____ to _____ , which will _____		
4	What is my /our strategy? In order to achieve this, we will _____.)		
5	How will we present our project to the group and community?		
7	Dry Run and Peer Review Feedback: Practice presenting your project to others.		
8	Project Presentations		
9	Self-Review- what needs improving?		
10	Follow-Up/Next Steps- work with your leaders and community to put your project into action.		

Peer Review Feedback Form: use this with Step #7

What worked well?

What could be modified?

What could be added? Removed?

Self-Review: Use this with Step #9

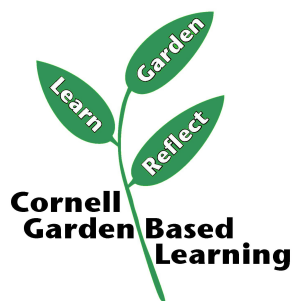
What happened with your presentation?

What was your response to what happened? How do you make sense of it?

What might you do differently next time?

What did you learn most from while you were developing your project? Where do you continue to have room for growth?

What surprised you most about the development process? Is there a different approach you might take?



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Reviewer: Marcia Eames-Sheavly



4.4 Planning and Leading an Educational Event

Skill Level: Advanced

Learner Outcomes, Youth will:

- Collaborate with peers, adult leaders and community members to plan, organize and implement a public educational outreach program or event.
- Identify program goals, educational and financial resources, outcomes, and organizational approaches.
- Team up with others to meet community needs and educational objectives.
- Utilize facilitation and teaching tools and strategies to organize, plan and lead others.
- Develop and utilize tools to evaluate program needs and success.

Education Standard(s)

- HS-ETS1-1. Analyze a major global challenge to specify criteria and constraints for solutions that account for societal needs and wants.
- HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.
- HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

Success Indicators: Youth use planning, organizational and presentation skills to lead and teach others.

Life Skills: Resiliency, goal setting, problem solving, service learning, responsibility, teamwork, leadership, community service/volunteering.

Time Needed- varies

Materials List – Chart paper, white board or other material to create a vision / planning board, note pads or notebooks for each person, pens, markers, sticky note pads.

Space: Space to meet on a regular basis to plan.

Suggested Group Size- varies

Introduction

This activity provides the steps and the leader guidance that youth will need to plan and implement an educational outreach event. Youth interested in leading and teaching others to take action will perform this activity. This serves as a planning guide and first steps in implementing an actual event. Depending on your resources and adult supervision, the venue size is up to you. This may be a series of presentations delivered

to small groups, as online webinars, or a larger undertaking such as an assembly or conference style event. Youth will decide the content (with guidance) and if they choose to teach or facilitate others. This is an opportunity for your group to shine as leaders and use what they have learned to share this knowledge with others.

We would like to emphasize that an event need not be large to be effective. Sometimes smaller, intimate gatherings have a great impact.

Opening Questions:

- How do you see yourself teaching others about taking action towards alleviating the effects of Climate Change?
- If you could choose, would you like to be a presenter or a facilitator?
- In teaching others, what topics and ideas would you want to share with your peers?
- Which do you think would be more effective in getting your message across to others, a large one or two-day event or a series of smaller events or workshops over a longer period of time? Why?
- Think about those people in your community taking action against climate change (refer to Unit 3). Would they like to share their story?

Background Information

This activity is the result of the culmination of all curriculum activities done in this unit and Units 1-3.

Before the Activity

Assemble and prepare any resources and paperwork needed to produce an educational outreach event such as this, if needed, any photo-release and risk waiver forms, permission slips, insurance certificates/ hold harmless agreements, venue contracts, etc. Create a meeting agenda and gather materials needed for brainstorming and planning meetings. Set a tentative schedule of meeting times during the planning process. On six separate pages of chart paper to be hung on a wall in front of the group, label each page with one of these headings: **1. Why 2. How 3. When 4. Where 5. What and 6. Who.**

Let's Do It!

Introduce the activity by showing the video "Teaching Climate Change" from NOAA: <https://www.climate.gov/teaching/essential-principles-climate-literacy/climate-youth-engagement> Ask what they thought about the video and opening questions.

Facilitate an initial brainstorming session using the six prepared chart pages. Have youth to write ideas and answers on sticky notes, on how they will present Climate Change Action education (see below as a guide). Have them attach their written notes to the corresponding charts.

Optional: After final decisions have been made, consider creating a vision board to illustrate the overall planning process.

1. Why: Goals!

- Who is our audience? Why?
- What message(s) do we want to convey?
- What outcome (goals) do we want to meet?
- Anything else?

2. How will we put on such an event?

- Will this be a virtual event, one-day summit, or series of workshops over a longer period of time?
- What financial resources, if any, do we need to put on such an event?
- Can we find sponsors and community leader to help support our goals?
- Anything else?

3. When will this take place?

- Decide on a date or dates and alternates based on availability and everyone's schedules and needs. Be mindful of holidays and school breaks.
- Anything else?

4. Where: The Space

- Where will the event take place? A school, local community space, theater, auditorium, classrooms?
- Does this space have the technology, audio / visual we will need?
- Who do we need to contact to secure the space? (school principal, custodial, etc.)
- Will there be food, refreshments?
- Anything else?

5. What: The Agenda

- What topics will you cover?
- Who will present these topics? Students? Local experts? Both? Will there be a keynote speaker?
- What does the schedule look like?
- Will there be hands-on workshops that require materials?
- Anything else?

6. Who: The Team

5. Who will be on teach committee / planning team? Invite community members and friends to be on the planning team if they are interested. Identify two co-chairs who will lead the planning meetings, prepare agendas and scribe meeting minutes. Who will do what? Decide on who will join and lead each of these teams:
 - **Event Space:** Meet with the facility, confirm everything and be sure they have the space and resources we need. Work with adult leaders to complete any paperwork, insurance forms.
 - **Event Agenda:** Plan the schedule, topics, speakers. Work with Event Space group to coordinate where sessions are to be held.
 - **Housekeeping:** set up / clean up
 - **Documenting/ Photographing:** will someone be on hand to document the program?
 - **Materials/ handouts/refreshments:** who will be sure speakers and participants have materials they need? Organize any refreshments.

- **Evaluation:** who will create a feedback form for after the event and compile the results?
 - **Facilitators/ Room Hosts**
 - Who will be on hand to make sure all of the above runs smoothly?
 - Who are the people that speakers and others can go to for answers?
 - Who will be assigned to a room and/or speaker to be sure they have what they need?
6. Anything else?

Reflect: After the initial brainstorming session, reflect the results of the discussion and decide as a group your next steps. Set a plan to meet, including when/where/how often the group will meet to continue the planning process of the event.

Share: At each planning meeting, each team should be prepared to report any progress in between meetings, and what steps still need to be completed.

Apply: Put your plan into action!

References

NOAA, Climate.Gov, Teaching Climate:

<https://www.climate.gov/teaching/essential-principles-climate-literacy/climate-youth-engagement>

Learn More

4-H Member Guide: How to Make a 4-H Public Presentation

<https://nj4h.rutgers.edu/pdfs/4H-public-presentations.pdf>

Alliance for Climate Education, <https://acespace.org>

Connect4Climate, [Advancing Climate Change Education and Youth Empowerment](https://www.connect4climate.org/publication/advancing-climate-change-education-and-youth-empowerment)

<https://www.connect4climate.org/publication/advancing-climate-change-education-and-youth-empowerment>

NOAA, Climate.Gov.

Our Time to Lead: Youth Engagement on Climate Change

<https://www.climate.gov/teaching/climate-youth-engagement/events/our-time-lead-youth-engagement-climate-change-0>

Teaching Climate

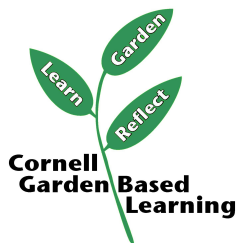
<https://www.climate.gov/teaching/essential-principles-climate-literacy/climate-youth-engagement>

Youth Climate Leaders Academy, Vermont Energy Education Program,

<https://veep.org/for-teachers/project-based-personalized-learning/youth-climate-leaders-academy>

Youth Today, Training Young People to Be Peer Leaders and Educators Is Powerful

<https://youthtoday.org/2019/08/training-young-people-to-be-peer-leaders-and-educators-is-powerful/>



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