girl scouts

ADULT RESOURCE

Girl Scout Climate Challenge

About the Girl Scout Climate Challenge

The Girl Scout Climate Challenge engages Girl Scouts and non-Girl Scouts of all ages in activities that get them outdoors to learn about climate science, connect them with their communities to understand how they're impacted by climate change, and have them spread awareness of the issue to create change.

The Climate Challenge includes activities that connect the science of climate with STEM, community problem solving, and outdoor adventures. It also includes citizen science projects curated by SciStarter, an online citizen science hub with more than 3,000 research projects to participate in.

How to Complete the Girl Scout Climate Challenge

Girl Scouts and non-Girl Scouts in kindergarten through grade 12 can complete the Girl Scout Climate Challenge by completing 10 activities total on the activity guide for their grade level (K–5 or 6–12). They must complete four activities from Part 1, four activities from Part 2, and both activities in Part 3. They can complete them as individuals or as a group. They can do them at home, camp, a Girl Scout meeting, or anywhere else they're inspired to make a difference.

There are many ways to support your youth to complete the Climate Challenge. You can:

- **Do it with others.** Many of the Climate Challenge activities can be done at home or in your neighborhood. Youth can complete the activities on their own or with family and friends. This can be a great chance to get outdoors and make a difference together!
- **Find friends to help.** While expertise and experience isn't necessary to complete the Climate Challenge, involving others who can talk to youth about their work and knowledge of climate science and action can bring the material to life. It can also provide youth with a mentor or role model of someone who is trying to make a difference locally by addressing climate change.
- **Go to a Girl Scout event, camp, or troop meeting.** While the activities can be done anywhere, Girl Scouts and youth may want to work together and connect with others who care about the environment. To support them, check with your local Girl Scout council to see if it is having an event. If your youth is a Girl Scout, have them bring the Climate Challenge to their troop as something they could do together or at camp.

When youth have completed 10 Climate Challenge activities, purchase the patch at the Girl Scout Shop.

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How to Talk to Youth About Climate Change

Climate change can be stressful and overwhelming—it's not a problem we can solve on our own. Kids today know this and that they're both angry and afraid. They know about the impact of climate change and are worried about the future of our planet. You can make climate change less scary by supporting youth to learn what causes climate change, how people can help address it, and what they can do.

The activity guides and resources for youth (available for K–5 and 6–12) include information to support each part of the Girl Scout Climate Challenge. You can also find additional examples, information, and discussion questions below to help support youth as they complete activities for each part of the Girl Scout Climate Challenge.

Part 1. Explore Climate Science.

It's important that before learning how they can address climate change, youth learn the "why" and science behind climate change.

Share the science. Provide simple and concrete explanations about the causes of climate change. Use the glossary on page 8. Share basics like information about weather versus climate, how a rising temperature leads to extreme weather, the role of trees, and how human behavior contributes both to creating and preventing climate change. Make sure to also share what scientists, engineers, and other STEM professionals are doing to learn more about climate change and find solutions. You can also check out the Girl Scout Climate Challenge on SciStarter for a set of curated projects for youth to collect data and contribute to climate science research.

Share examples. If you can, research (or have your youth research) your area's weather and climate. Share examples that compare climates, such as, "In Miami, Florida, the weather during winter ranges from the low 60s to mid-80s, with sunshine and the possibility of thunderstorms or rain showers; the climate is considered tropical. Tropical climate is defined as an area that experiences warmer and rainier seasons all year round. In comparison, New York City's daily weather conditions during the winter would be colder with temperatures mostly between 20 degrees and 40 degrees, with the possibility of snow showers. New York City's climate would be called humid subtropical because of its extreme cold weather in the winter and extreme hot weather in the summer."

Share what individuals, businesses, and nations can do. When explaining the greenhouse effect and carbon footprint, make sure youth understand the role of humans and industrialization as well as the difference between what individuals, communities, businesses, and governments can do to contribute to and address climate change. For instance:

- What **people and communities** do contributes carbon dioxide (CO_2) to the atmosphere. Traveling by car or airplane, using plastic, wasting water and food, and leaving lights on when they're not needed are all examples of actions that burn fossil fuels (like cars and planes) or waste energy (which is usually created by the burning of fossil fuels). People can make changes to reduce their carbon footprint.
- What **corporations and governments** do makes an even bigger impact. Fossil-fuel-based manufacturing and

Discussion Questions

▶ What's the difference between weather and climate?

▶ Have you noticed changes in the climate or weather?

▶ Can you explain what a greenhouse gas is? What's a carbon footprint?

▶ How are scientists learning about climate change?

▶ How have people, communities, businesses, and governments contributed to climate change?

▶ What are some unique ways people are dealing with and finding solutions for climate change?

transportation pumps a lot of CO_2 into the atmosphere. Clear-cutting forests for plantations to grow crops like bananas, palm oil, sugarcane, and coffee causes erosion and destroys trees that would be pulling carbon out of the atmosphere.

- When **energy companies and local and national governments** make decisions about what kind of energy to use to create electricity, they make decisions with implications for climate change. If they choose to build infrastructure for coal or natural gas power plants, that will emit more CO_2 than other forms of energy creation, like hydroelectric (water), solar, or wind power plants. When state and national governments make rules about fuel efficiency in vehicles, or pollution or carbon limits on manufacturing, they're also making decisions with implications for climate change. Policies that can help curb climate change include things like plastic bag fees; car, bike, and scooter shares; electric-powered buses; and tax incentives for solar panels.

Part 2. Connect with Your Community.

As youth learn about climate change, you can help them examine the issue from the international, national, state, and local levels, as well as how it affects different communities or groups of people. For instance:

- **Race:** Black, Indigenous, (and) people of color (BIPOC) are more at risk of experiencing heat, pollution, and other impacts of climate change. In many areas, laws and government policies have caused a majority of BIPOC to experience more of the impact of climate change. Housing and lending policies, and other city planning decisions (such as redlining), have segregated or separated them and forced them into heat islands and places with fewer trees. These areas experience higher temperatures that affect peoples' health, leaving people in BIPOC communities more likely to die from heat-related causes.
- **Geography:** Cities with areas that have fewer trees experience "heat islands," where buildings and pavement absorb and retain heat from the sun. Without trees to cool and clean the air, these areas have more pollution and often very high temperatures. BIPOC and low-income communities are more likely to have heat islands than other communities. Rural communities may experience erosion, mudslides, and flooding when trees or other native plants are removed or die. This has negative effects on farm and ranch land.
- **Gender:** Women and girls are uniquely impacted by climate change as they face traditional expectations about caring for homes and people. They often have fewer resources than men and boys, and are more likely to have to leave their homes.

Provide resources. When discussing climate change and justice, share information with your youth (or help youth to research information) about what is happening right in their own community, along with resources about research and efforts on the state, national, and global levels. Encourage them to research the issues and organizations working on them, especially any local groups where efforts could be combined.

Balance your examples. When discussing the impact of climate change, balance your examples of harmful impacts with those of how people are making a difference: citizen scientists gather data; engineers develop alternative energy sources and ways to remove

Discussion Questions

▶ What are your friends and family members saying about climate change?

▶ How are climate change and climate justice related?

▶ How does climate affect different parts of our community?

▶ Have you noticed parts of our community that have more or fewer trees than other parts, or that have been impacted by climate change?

▶ What resources or groups are already working on climate change in our community? How can you connect with them to amplify efforts?

greenhouse gases from the atmosphere; and people plant trees, preserve existing forests, and design urban areas to prevent erosion or heat islands. If you can, find local, relatable stories of youth and others working to create change for inspiration.

Turn fear into motivation. The climate crisis can be very scary. Paralyzing, even. When discussing climate change with your Girl Scouts, ask how they feel. Acknowledge their fear, anger, or anxiety. Then provide examples of when people have faced very challenging situations in the past and have made big changes or advances, such as how communities respond to natural disasters with humanitarian aid; how scientific research makes buildings and other places safer and more resilient; and how the world has worked together to prevent the spread of serious illnesses, like the flu, polio, or COVID-19.

Part 3. Share Hope.

To have an impact climate change, everyone needs to act! Individual people as well as communities, businesses, and governments all need to get involved. You can help Girl Scouts and young people to learn about climate change and what they can do to fight it. Even more, you can encourage them to share what they've learned and invite others, getting more people involved in the fight against climate change!

Start small, but think big. Get youth thinking about changes they can make individually, and then "zoom out" to what their families, communities, states, the nation, and the world can do. Remind them that they can be leaders, advocates, and activists at every level. In other words, think globally and act locally.

Keep it youth-led. The examples given on the "Share Hope" resource sheet in each activity guide are intended to give a sense of what a Climate Challenge project could look like. Youth do not have to choose a project from this list! Instead, guide them to brainstorm ideas, get feedback, and come up with a plan. Encourage them to use their talents, skills, and strengths to create a project that both engages and spreads awareness in their community.

Research the problem. Help youth to find out more about their community and the issue they want to address with their Climate Challenge project. Support them to research and learn more online or through newspapers, videos, and anything else. They may also be able to talk to people in the community to gather ideas. For example, if youth want to engage their school community, they could talk to other students or create a quick online survey to gather ideas and feedback.

Use your network. Youth may need your help connecting with others who can support their project. Brainstorm any connections you have with experts, organizations, officials, volunteers, or anyone else who can support. You may also need to help youth contact their school, town officials, or others to get permission or schedule meeting time to share their projects. As much as possible, have youth lead the conversation so they have the experience of connecting with others to make a difference.

Don't rush it. It may take more time than expected for youth to complete their Climate Challenge project, and that's all right! Support them to take the time they need to create a lasting project that makes an impact on their community. They'll have a more valuable experience if they have the time to create and refine a project they care about, instead of rushing to finish.

Discussion Questions

- How does thinking about climate change make you feel?
- What issue or aspect of climate change are you most interested in or passionate about? Which is most important to your community?
- How can you use your talents, skills, and strengths to make a difference? What are some activities that you would be interested in that help climate change?
- What type of support or additional knowledge do you want when exploring climate change?
- What can you create to spread awareness about climate change? How can you ask others to get involved? How can you plan your project like a scientist might?
- What materials, resources, and community connections are available to support your project?

After the Climate Challenge: Keep the fun going!

Once youth complete the Girl Scout Climate Challenge, they may be inspired to learn more and continue to make a difference. To explore more about the connection between trees and climate, youth of all ages (and adults!) can participate in the Girl Scout Tree Promise.

Girl Scouts can also continue learning about STEM and environmental stewardship in their community and around the world. They can complete the Think Like a Citizen Scientist or It's Your Planet—Love It! Journeys, available for all levels. They can earn their Environmental Stewardship badge, such as Eco Friend for Brownies and Eco Explorer for Seniors. Daisies, Brownies, and Juniors can also continue to explore nature and earn the Math in Nature badges.

Glossary

Biodiversity—the variety of life on Earth that creates our global ecosystem

BIPOC—an acronym for "Black, Indigenous, and people of color"

Carbon dioxide—a gas released by burning coal, natural gas, oil, and wood that traps heat in the atmosphere

Carbon footprint—the amount of carbon dioxide humans release into the environment

Carbon pollution—when we use fossil fuels like burning oil, gas, and coal, the carbon goes into the air, water, and soil

Citizen science—when nonprofessionals help scientists with their research by recording and sharing data

Climate—the average pattern of weather conditions over a long period. Climate is different from weather because weather changes daily.

Climate change—a change in the average conditions—such as temperature and rainfall—in a region over a long period

Climate justice—understanding that climate change affects people in different ways and needs to be addressed in ways that are equitable and involve both the people responsible for and impacted by climate change

Deforestation—the process by which native trees are cut and not replanted, ultimately destroying forests and disrupting the carbon cycle

Drought—continuous period of dry weather when an area gets less rain than the historic average

Environment—the air, water, and land in or on which people, animals, and plants live

Fossil fuels—carbon-based fuel formed from the remains of plants and animals, such as coal, petroleum, and natural gas

Global climate—the average climate over the whole world

Global ecosystem—how plants, animals, humans, and other living organisms work around the planet

Global warming—an increase in Earth's average temperature due to greenhouse gas emissions which trap the sun's energy that causes ice to melt and sea levels to rise

Greenhouse gases—the emissions of carbon dioxide or other gases that contribute to the greenhouse effect

Rural—refers to areas that are usually farms or the countryside where people might live in small villages.

Weather—a specific event, like a rainstorm or hot day, that happens over a few hours, days, or weeks