



IMPACT OF POLLUTION

Before completing this charm, girls should have completed the Wild Wonders Patch.

Alina Boorse is a 2021 Gold Award Girl Scout who based her project on educating others about sustainability and urging the next generation to think and act sustainably. "I have always had a profound love for the environment, and I thought there would be no better way to share this passion than to create a skills charm educating girls about how pollution impacts our world," shares Alina. This charm encourages girls and troops to think about the adverse causes and effects of pollution across the globe, as well as the solutions to give our planet a second chance at survival. Share with Alina your progress as you learn about the impact of pollution by reaching out to her environmental Instagram page: [@eco.lytical](#). Tag her and [@GSACPC](#) in your posts!

All questions that are asked in the various sections are to be discussed with family/troop members.

As you work on this charm, think about what happens if humans continue to create pollution, knowing it furthers the contamination of our planet. How will Earth look if we continue to act the way that we do? When will it be too late to reverse the clock and fix what we have done?

PART 1: LEARN ABOUT POLLUTION AND EXPLORE HOW WIDESPREAD IT IS.

- » What is pollution?
- » Can something be considered "pollution" if it does not directly harm the environment? Why or why not?
- » What are primary and secondary pollutants? Give an example of a primary pollutant and the secondary pollutant(s) it causes.
- » Name at least three daily actions that cause pollution. How has pollution become a frequent byproduct of our daily activities?
- » How might pollution affect environmental growth?
- » How much pollution do you think enters the air every year? Then, look up the answer. Is this number higher than you expected? Explain why or why not. If this much pollution enters the atmosphere, how much pollution invades other parts of the environment? Why is there so much pollution?
- » Did you believe pollution was prevalent before you started this skills charm? Why or why not? If your view has changed, how so?

PART 2: LEARN ABOUT THE SEVEN DIFFERENT KINDS OF POLLUTION.

- » **Air Pollution** is the lessening of air quality by introducing solid particles or harmful gases into the atmosphere.
- » **Water Pollution** is when harmful substances like chemicals or microorganisms enter water sources, leading to contamination.
- » **Land Pollution** is when solid or liquid waste is placed on or in the ground contaminating the soil.
- » **Radioactive Pollution** is the introduction of radioactive substances into the environment.
- » **Noise Pollution** is regular exposure to elevated sound levels, causing disruption.
- » **Light Pollution** is extreme or misdirected, artificial outdoor light.



WILD WONDERS

- » **Thermal Pollution** is the lessening of water quality through dramatic temperature changes.

Please feel free to do more research about the types of pollution. These definitions are here as a starting point.

- » What do these forms of pollution have in common?
- » Is there one kind of the seven pollutions that is worse? If so, which one and why?

PART 3: EXPLORE THE CAUSES AND EFFECTS OF EACH TYPE OF POLLUTION.

- » Find at least three causes for each of the seven pollutions.
- » Find at least three effects for each of the seven pollutants. Is there a common thread between the effects?
- » Does all pollution come from humans? If not, give an example.
- » How does pollution, specifically air pollution, affect Climate Change?
- » When the environment becomes polluted, can we “unpollute” it? If so, how?
- » Once you have a better grasp of the causes and effects of pollution, allow yourself to reflect. Find a place outside, and write about what you see and hear. How might your recent observations about nature change in the future because of pollution? What might the whole earth look like thirty years from now due to pollution?

PART 4: TAKE A GLOBAL PERSPECTIVE.

- » Pollution is everywhere. How is pollution affecting other places?
- » Read at least one of the articles and watch one YouTube video about pollution to better understand its impact on the environment.

ARTICLES

- [Light Pollution is Getting Worse & Earth is Paying the Price](#)
- [Predicting the World's Next Water Pollution Disaster](#)
- [Plastic Pollution is a Huge Problem—and It's Not Too Late to Fix It](#)
- [Radiation in Japan Seas: Risk of Animal Death, Mutation?](#)

VIDEOS

- [Earth vs. Man](#)
- [Environmental Pollution](#)
- » Often, problems like pollution don't become a “real” problem until they directly affect us. How is pollution affecting you? If it isn't affecting you now, how do you think it will in the future?
- » What actions can we all do right now to lower the amount of pollution in our environment that will also impact the future?
- » Grab a pencil and paper! Draw or write a vivid description about a specific place before and after pollution entered. This project could be modeled after a real setting or something fictional. This drawing or writing is supposed to capture how pollution truly takes a toll on the environment.

PART 5: POLLUTION DISCOVERED

Visit a place where you see at least one kind of the seven types of pollution listed.

- » What is causing this pollution?
- » How has this pollution changed the environment?
- » Is the pollution getting worse? If so, why?
- » Do you see any changes being done to stop the pollution? If so, what?
- » What can you do to minimize or end this specific pollution?

After visiting that place, you have seen pollution first-hand. With that knowledge, develop a poster report about a country's pollution that you would like to further explore. Feel free to get creative by adding photos and diagrams.

- » What kind of pollution do they have?
- » What or who is causing it?
- » How is it affecting their environment?
- » Come up with two solutions to address the pollution problem(s).

PART 6: TAKE ACTION

A Take Action project is a chance for girls to partner with others in their community to solve a problem. They learn about getting to the root causes of issues, mobilizing and engaging community members and volunteers, and striving toward creating lasting change in their communities.

- » Investigate ways other Girl Scouts have taken action and get inspired.
- » Create a Take Action project to teach your community, troop, or family about pollution – its causes, impact on the environment, solutions to stop it, etc. Together we can prevent pollution from entering our environment.

RESOURCES

The following resources will help in the completion of this charm. There are many more resources online and at your local nature preserve areas.

- » www.nationalgeographic.org/encyclopedia/pollution/
- » www.pollution.org/
- » www.environmentalpollutioncenters.org/
- » www.worldwildlife.org/threats/pollution
- » www.oceanservice.noaa.gov/ocean/earthday.html
- » www.nps.gov/subjects/youthprograms/girlscoutranger.htm
- » www.huffpost.com/entry/childrens-books-environment_5d66f45de4b063c341fa409c

BADGE CONNECTIONS

By participating and completing this Charms program, you are also on your way to earning Girl Scout badges. Purchase specific badge requirement packets at girlscoutshop.com/ARIZONA-CACTUS-PINE-COUNCIL.

- » Daisy = Take Action
- » Brownie = Take Action
- » Juniors = Take Action
- » Cadettes = Take Action
- » Seniors = Take Action
- » Ambassadors = Water, Take Action

RECOMMENDED NEXT CHARMS:

- Leave No Trace
- Sense of Place
- Fire
- Water

ADDITIONAL COUNCIL'S OWN PROGRAMS RELATED TO THIS SUBJECT:

- Biosphere Adventure
- Getting to Know the Desert