girl scouts
of california's
central coast

Project Pollinate

Patch Program

An At-Home Patch Program

Girl Scouts of California's Central Coast Project Pollinate

California is known around the world for its incredible biodiversity, but its ecosystem is in danger. With booming pesticide use, habitat destruction, and pollution created by humans, we must stand up for each other's safety and the creatures that don't have a voice.

The goal of the Project Pollinate Patch Program is to educate girls about pollinators and inspire them to help make a difference. By learning both about our biodiverse ecosystems and human impact on the environment, we can begin to make choices that protect pollinators. This patch gives all Girl Scouts the opportunity to observe and track local pollinators in their community. Younger scouts will learn about bee and flower anatomy as well as how plants are pollinated, while older scouts will get to interview school administrators and county employees about pesticide use.

All scouts are encouraged to keep a food journal for one week to discover how much of what they eat is owed to pollinators. Scouts are encouraged to also note what percentage of this food is organic versus conventional and what impact that has on the environment.

- **Earning the Patch Age Level Requirements**
    - DAISY - Bolded Requirement
    - BROWNIE - Bolded Requirement +1 Additional Requirement
    - JUNIOR - Bolded Requirement +2 Additional Requirements
    - CADETTE, SENIOR, AMBASSADOR, AND ADULT - Bolded Requirement +3 Additional Requirements

Program Outline:

Who Are Our Pollinators?

Pollinators come in many shapes and sizes. Here's a list of some of the more abundant pollinators in your community to look out for:

- Bees (honeybees, native bees and bumblebees)

- Butterflies
- Moths
- Beetles
- Bats
- Hummingbirds

Discover:

1) **Survey your local pollinators. Go outside and observe a small flower patch or flowering plant for at least 10 minutes a day for at least 7 days. What kinds of pollinators did you see? Write them down.**
2) Draw what pollinators you see each day including the number of each one that you see. After the week, you should have 7 different drawings of the plant(s) you observed and the different pollinators that visit it.
3) Draw the anatomy of a honey bee with labeled parts. Are there any differences between different types of bees? Do some research on different bees and find out about how they pollinate plants.
4) Draw the anatomy of a flower with labeled parts. Where does pollen come from? How are various flowers different from each other and how do they reproduce?
5) Draw a diagram of cross-pollination. Do some research to find out about the process.
6) Investigate some of the dangers facing the different pollinators that you observed and what can lead to Colony Collapse Disorder (CCD). Think of some ways that you can minimize these dangers in your own community.
7) Examine the food around your house. Which foods are organic? Which ones aren't? Do some research to find out how these foods impact the environment?
8) Keep a log of the food you eat for a week. What foods use insect pollinators? How much of the food you eat uses insects to pollinate food?

Connect:

1) **Contact an environmental preservation or beekeeping organization in your area or visit their website and find out about how they are working to protect pollinators in the area. To find information about local beekeepers visit https://www.bryansbees.net/ (Ventura), http://www.sfbee.org/ (San Francisco), https://www.beeguild.org/ (Santa Clara Valley), https://www.santacruzbees.com/ (Santa Cruz), or find a beekeeping group in your town.**
2) Find out about projects that are being done by other scouts or people in your community to help pollinators and research ones that interest you and write a short summary of what is being done and why you chose that project. For other projects go to https://xerces.org/community-science.
3) Work with your parents to find out about pesticides are used around your house. Are they organic/eco-friendly? If not, what are some alternative products that you could use?
4) Contact someone from your school, church, or other important organization in your life and ask them about what kinds of products they use for pest control in their gardens and other outdoor areas. What are some natural products could be substituted? For information about bee friendly pest control, visit https://www.beyondpesticides.org/assets/media/documents/pollinators/documents/ManagingPestsWithoutNeonics.pdf or https://www.savehoneybees.info/alternatives.

5) Contact your local government or do some research to find out about the kinds of pesticides they use in the area? Are they organic or eco-friendly? To see what pesticides are used in your area, visit https://oehha.ca.gov/calenviroscreen/indicator/pesticide-use.

Take Action:

1) **Do some research to find out about native plants that help pollinators. Plant at least one in your yard or neighborhood.**
2) Create a video on ways that you and your family are helping local pollinators. Post the video on social media (Facebook, YouTube, Instagram) with the hashtags # GSProtectsPollinators and #ProjectPollinateGS.
3) Create a bee home for hiveless bees to live when pollinating flowers in the area. For instructions on how to make bee homes, go to http://montanawildlifegardener.blogspot.com/2010/06/build-mason-bee-house-in-5-minutes.html. For instructions to make bee homes out of recycled materials, visit https://www.pacificbeachcoalition.org/diy-bee-house-recycle/. Place it in your pollinator garden.
4) Create a bee waterer. This is a place for tired bees to rest and drink some water. To build one, go to https://www.instructables.com/id/Easy-Bee-waterer/. Remember not to add sugar to the water. Place it in your pollinator garden.
5) Make an art project or flyers with information on your local pollinators. Make copies to hang up around your neighborhood to inform your neighbors about the importance of pollinators. Include pictures or drawings to help others identify these important creatures.
6) Host a pollinator education workshop for your parents or friends to tell them about different pollinators. Take what you learned from this program and figure out a fun/creative way to display your information. Then teach your parents or friends the information you learned. Feel free to do some more research about topics that interested you most.
7) If you contacted your local government and found out that their pesticides are harmful to the environment and your local pollinators, do some research to find out about alternative products and contact your local government again to inform them about the healthier products and see if they are willing to make the switch.

Fill Out This Form After Completion

https://www.cognitoforms.com/GirlScoutsOfCaliforniasCentralCoast2/GSCCCProjectPollinatePatchProgramAtHome

Patch Purchasing Link

https://girlscoutsccc.doubleknot.com/orgstore/store/store_viewitem.asp?idProduct=43057&promo=