



## Water Resources and Conservation Patch Program

Produced jointly by the Municipal Water District of Orange County  
and Girl Scouts of Orange County



### Patch Program Overview

The Municipal Water District of Orange County (MWD OC) and Girl Scouts of Orange County (GSOC) have partnered to develop the Water Resources and Conservation Patch Program for all levels of Girl Scouts. The **Water Resources and Conservation Patch** Program educates Girl Scouts about where their water comes from, the importance of Orange County water resources, and how to be water efficient. Girl Scouts will complete the program equipped with a better understanding of their local water supply sources, and will discover the value of protecting our most treasured, natural resource. Girls will also be encouraged to take action in their communities to promote water use efficiency and help ensure a safe and reliable water supply for future generations.

Girl Scouts of any level can earn a Water Resources and Conservation Patch by completing a two-hour, STEM-based clinic hosted by MWD OC. Clinic lessons and activities align with the Next Generation Science Standards (NGSS) and meet GSOC patch program objectives to *Learn, Share, Do*.

- **Learn:** Visit an Orange County water source, water treatment facility, or ecological reserve to gain a better understanding of the local watershed. With guided instructions, learn about the water cycle, the local climate and ecosystem, types of soil, and ways to adapt resident gardens to survive with less water. An opportunity will also be presented to discover and learn more about careers in the water industry.
- **Share:** Use water more efficiently and help friends and family do the same by sharing the Water Resources and Conservation Patch Program learning objectives with others. Educate the community about conserving natural resources or start a conversation about an important water issue. Explore a local water district through printed materials and online resources, and tell others about opportunities to be mindful of the many ways water is used and needed within the community.
- **Do:** Complete a service project that helps to protect Orange County's native habitats and the organisms that depend upon it. For example, you might volunteer to pick up trash at the clinic site or identify other community service or Take Action projects and events to continue water efficient practices and inspire others to do the same.

### Patch Program Requirements

**The Water Resources and Conservation Patch can only be earned through participation in a MWD OC hosted clinic.** The Patch Program Requirements are divided into Daisy/Brownie, Junior/Cadette, and Senior/Ambassador Girl Scout levels:

Daisies (K-1) and Brownies (2-3):

1. Complete a guided tour of an Orange County water source, water treatment facility, or ecological reserve.
2. Tell a partner how you used water today.
3. In small groups, name at least five (5) ways to save water at home or at school
4. Write, draw, act, or recite your pledge to save water and share it with the group.



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5. With help from your Troop, group, or partner, name the four main stages of the water cycle and complete the assigned water cycle activity.
6. In your group, discuss what you have learned and talk about what girls your age can do to protect our water supply for future generations. What can you learn at school that might lead to a future career in the water industry?

*\*Steps for completing the Water Resources and Conservation Patch may qualify for additional Girl Scout badges and awards, such as:*

- *Daisy - Eco Learner Badge: Step 2 - Learn about the importance of staying on a path and observe where plants, flowers, and insects are located.*
- *Daisy – Flower Garden Journey: Through this clinic, Girls will gain a better understanding of water as it relates to caring for their own gardens. This is a great addition to the leadership journey for earning a Watering Can Award.*
- *Brownie – WOW! Wonders of Water Journey: This clinic closely aligns with the WOW! Journey, specifically Session 2, where Girl Scout Brownies learn about the water cycle and how to appreciate and protect our water resources.*

Juniors (4-5) and Cadettes (6-8):

1. Complete a guided tour of an Orange County water source, water treatment facility, or ecological reserve.
2. Learn about Orange County's water supply. How does water get to Orange County?
3. Use a map of California to identify the location of the Sierra Nevada mountain range and the Colorado River. Note how far our water has to travel just so we can use it!
4. Name at least five (5) ways to save water at home or at school and how you can encourage others to save water.
5. In small groups, discuss water runoff and its connection to water pollution, then complete the assigned activity.
6. In your group, discuss what you have learned and identify a career in the water industry that you would like to learn more about. What subjects will you need to study in order to have this career?

*\*Steps for completing the Water Resources and Conservation Patch may qualify for additional Girl Scout badges and awards, such as:*

- *Junior – STEMsational ME! Badge: Step 4 – Complete by visiting a water treatment or water recycling center to find out how water is reused. What can you do to keep water from going to waste?*
- *Cadette – Eco Trekker Badge: Step 3 – Find out about water filtration so you can use that knowledge to compare to how you will purify your own water.*
- *Cadette – Eco Trekker Badge: Step 4 – Explore a water issue. Record what you see during your guided tour and think about solutions based on your research.*
- *Cadette – My STEM Life: Step 1 – Visit a STEM-based business in Orange County.*



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Seniors (9-10) and Ambassadors (11-12):

1. Complete a guided tour of an Orange County water source, water treatment facility, or ecological reserve.
2. Learn about Orange County's water supply. How does water get to Orange County?
3. Identify your local water provider. What agency serves water to your neighborhood and what programs do they offer to help you save water?
4. Name at least five (5) ways to save water at home or at school. How can you advocate for water conservation?
5. In small groups, investigate how water is purified to make it safe to drink, then complete the assigned water quality testing activity.
6. In your group, discuss what you have learned and identify a career in the water industry that you would like to learn more about. Would you need to pursue a specific major in college to support this career?

*\*Steps for completing the Water Resources and Conservation Patch may qualify for additional Girl Scout badges and awards, such as:*

- Senior – Eco Explorer: Step 3 – Explore an environmental issue related to water. Find out about global water issues and how these issues impact the world in large and small ways. Keep track of your thoughts for use in Step 5.
- Senior – Eco Explorer: Step 4 – Find out more about water pollution to help you prepare for an environmental water project.
- Senior – Eco Explorer: Step 5 – Use what you have learned about water resources and conservation to create awareness and encourage others to take action.
- Ambassador – Water Badge: Step 3 – Visit a water facility such as a water treatment plant or managed watershed.
- Ambassador – Water Badge: Step 4 – Interview a water scientist.
- Ambassador – Water Badge: Step 5 – Educate others about a water issue.

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