

Water surrounds us, sometimes in such quantities that we forget how precious it is. Water is familiar and it is mysterious. It exists as a liquid, solid, or gas. It falls from the skies and exists deep within the earth. Water can nourish us and challenge us. In this badge, experience the bliss of a clear liquid known scientifically as H₂O.

Steps

- 1. Have fun reflecting on your relationship with water
- 2. Celebrate water art—and create your own
- 3. Find out about water issues
- 4. Explore water solutions
- 5. Educate and inspire others with a splash

Purpose:

When I've earned this badge, I'll have dived deep into water—from its scientific origins to the joy of splashing around.

Step 1: Have fun reflecting on your relationship with water.

Water is easy to take for granted. As you dive into this badge, take this opportunity to reflect on what water means to you, where it drops into your life, and what possibilities and challenges you see reflected on its sparkling (cloudy, clear, stormy) surface.

CHOICES — DO ONE:

Visit water in its natural state. Hike, swim, walk along a beach, or splash in puddles. If there's a water place you've always wanted to visit, use your outdoor and travel skills and go there. You might take a simple water tour of your hometown, noting where water splashes or spouts: fountains, puddles, drips, drops, creeks, steam, frost.

OR

Try a new water skill. Find a course in scuba diving, snorkeling, sailing, white-water rafting, water rescue, or synchronized swimming. If there's water experience you've always wanted but haven't had the necessary skills or training for, get some now.

OR



Enjoy a water activity you already know. Perhaps you already have a way you like to spend time with water—canoeing, kayaking, surfing, fishing, or tubing. Take a special Water badge trip to enjoy it, and reflect on why you love it.

Tip: If you take part in a water sport, explore whether you might coach the sport to earn your Coaching badge.

Step 2: Celebrate water art- and create your own.

Enjoy art that expresses water's cherished place in ritual and tradition around the world—and capture your own response to the world of water.

CHOICES — DO ONE:

Delve into water literature. Read a fiction or nonfiction book of at least 200 pages that focuses on water, or read five poems about water. React to what you read: You might write a review or a water poem of your own, host a book club for other Ambassadors or friends to discuss it, or reflect on it while sitting by a lake or stream.

For More FUN: Find the origins (called etymology) of expressions that use water, like "in hot water," "above water," and "water under the bridge."

OR

Enjoy an exhibit or event that features water. It might be a water sculpture, a water display (such as a community fountain), fine art, or even music that features water. (Perhaps "Water Music," by composer George Frideric Handel.) In whatever way seems appropriate to you (a photo series, a poem), capture your experience to share with others.

OR

Create your own water composition. Record the sounds of water, from waterfalls and streams to water-glass chimes to running tap water. You could make a composition that's calming to help you and others in times of stress, or a gleeful water tune for a celebration—maybe a Girl Scout ceremony. Share your composition with others.

Step 3: Find out about water issues.

Humans have always been dependent on water. Civilizations were built around rivers. Where it's dry, humans often create artificial bodies of water—reservoirs, harbors, and waterways. But our relationship with water isn't always a happy story. We also face



pollution, waste, and natural disaster. Take a closer look at a water issue and share what you find out, perhaps in a presentation, art project, article, or journal.

CHOICES — DO ONE:

Visit a water facility and explore its effectiveness. It might be a waste-treatment plant, a drinking-water treatment plant, a managed watershed, or a desalinization plant. Consider the facility's place in the community and its sustainability. How well is it working? What are its challenges—and your ideas for solutions?

Tip: Before you go, find out what these mean: "primary water treatment," "secondary waste treatment," and "biochemical oxygen demand."

OR

Investigate endangered marine life. You could interview a marine biologist about the need to protect coral reefs for marine life and for human life. Scientists have discovered several medicines in coral reefs, from anticancer chemicals to hard skeletons that might serve as bone implants. Or you could speak to an organization about overfishing, or research the effects of oil spills or climate change on ocean life.

OR

Investigate water as a hazard. Tsunamis, tidal waves, rogue waves, and flash floods all occur naturally, sometimes at great cost to ships and cities. Read several articles or a scientific book to learn more about one or all of these hazards.

For More FUN: Find out how satellites and radar help detect and measure waves and flash floods.

Step 4: Explore water solutions.

There are myriad water issues, to be sure. But since civilization depends on water, humans have always used their innovation and ingenuity to find, treat, gather, filter, conserve, and protect this precious resource.

CHOICES — DO ONE:

Interview a water scientist to find out how they're helping water. This might be:

 A hydrologist who studies water and its flow, underground water formations, and hydroelectricity.



- A civil engineer (or water resource engineer) who specializes in building and managing water treatment plants and dams, or who comes up with flood forecasting solutions.
- A climatologist who studies weather patterns and the water cycle.
- A marine scientist who investigates bodies of water, underlying geology, and organisms that live in oceans, lakes, and streams.

Choose one area that interests you and prepare a 10-question interview. Conduct your interview by phone, e-mail, or in person. Find out how the scientist became interested in their field, what they studied in school, and how they got the job! Share what you learn with others.

OR

Explore the world of hydroelectricity—and play engineer. Dams are sustainable generators of about 20 percent of the world's electric power. If you can, tour a dam. If not, research one. How does it help the community it serves? Put on your engineer's hat and ask yourself, If I were in charge of the dam, what improvements would I make? Share your recommendations.

OR

Design your own water innovation. Choose a water issue for which you'd like to create a solution. Your design can be for something specific, like a filter to clean water, or for something less tangible—what about a water policy or legislation you'd like to see enacted? Whatever it is, find a way to communicate your idea to others—such as a 3-D model, a draft of a bill you'd like to see, or a diagram or sketch.

Step 5: Educate and inspire others with a spalsh.

Here's your opportunity to take everything you've learned and enjoyed and use it to help others appreciate water. If you've already shared some of your findings, do it now in a different way. This step should feel like a focused culmination of your badge work.

CHOICES — DO ONE:

Celebrate water with younger Girl Scouts. You might have a party with a water theme: Guide a water science experiment and make fun seltzers with Brownies earning their Snacks badge. You might play Marco Polo and help girls learn basic water skills. Host a special GS camp weekend, or



organize an outing to a water park (a fun way to teach girls about chlorine).

OR

Share a water issue that matters to you with your community. It could be a speech or article in which you explore the issue and make an action recommendation—you could publish it in a newspaper or on a website. It might be a display or exhibit at a school, library, or place or worship.

OR

Guide a group to a water place. It could be a scavenger hunt—where does our water come from? It could be a tour of a naval base, commercial fishing boat, ferry barge, coast guard station, marine museum, or lighthouse. Wherever you go, you're the guide, and the experience is one you've crafted to share the aspects of water that are important to you.

Fun Fact:

Some early studies on the flow of currents used a drift bottle to send a message asking the recipient to report where the bottle was found and when. (Trying this at camp, in an ecofriendly way of course, might be a fun way to teach younger Girl Scouts about water science.)

Now that I've earned this badge, I can give service by:

- Taking younger girls on a water appreciation tour to a local water source
- Being an advocate for water in my community or an area in need
- Suggesting careers that make a splash to friends

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