



Start Small, Change Everything Patch Program

Girl Scouts commit to making our world a better place. But how do we do that? Through this patch program you will also get to teach your friends and family to take care of our planet. When lots of girls do small but mighty things every day, those little actions add up and can make the whole planet cleaner, greener, and healthier. This year we will celebrate the sea otter, and learn how your small actions can also help improve the life of this endangered otter.

By earning this fun patch, girls will:

1. Learn about the sea otter.
2. Investigate food waste and its effect on climate change.
3. Explore with Otterly Awesome Adventures
4. Celebrate Earth Hour OR Earth Day with your troop or family.
5. Take the Otter Pledge



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PATCH & LIVE EVENT**
www.gsdakotahorizons.org/patch



OTTER ENCOUNTERS: SMALL PAWS, BIG IMPACT

Tuesday, April 28 | 6:30 - 7:30 PM CT | Zoom

Get ready for an otterly amazing experience! Join us for a special live virtual event in partnership with the incredible team at Tanganyika Wildlife Park. During this interactive session, girls will meet some adorable young otters and learn from expert staff about how these playful animals play a big role in keeping our environment healthy.

You will learn more about how small, everyday actions can make a big difference for our planet—and for endangered species like the sea otter.

Whether you're just starting your patch journey or already working through the activities, this is a fun and meaningful way to connect, learn, and be inspired to take action. When girls come together to make small but mighty changes, we can create a cleaner, greener, and healthier planet—one otter at a time!

Important

- *Purchase of patch program required to attend live event.*



About the Patch Program

Girl Scouts commit to making our world a better place. But how do we do that? Did you know that can start small and still change big things for our planet? By celebrating Earth Hour and Earth Day, you will learn that simple actions matter. Through this patch program you will also get to teach your friends and family to take care of our planet. When lots of girls do small but mighty things every day, those little actions add up and can make the whole planet cleaner, greener, and healthier. This year we will celebrate the sea otter, and learn how your small actions can also help improve the life of this endangered otter.

Earth Hour and Earth Day are about more than making a small change on one day. Giving time to our Earth reminds us that even small actions can make big changes. Because we're not alone. There are millions of people joining to reduce our environmental impacts.

You can earn this patch with these 4 steps

1. Learn about the sea otter.
2. Investigate food waste and its effect on climate change.
3. Explore with Otterly Awesome Adventures
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1. LEARN ABOUT THE SEA OTTER

Complete 2 of the below activities.

1. Read or listen to the book *[If You Take Away the Otter](#)*
2. Research by reading 3 articles on sea otters at [Sea Otter Foundation and Trust](#).
3. Play the Kelp Forest Food Chain game (*see attached instructions*)
4. BONUS ACTIVITY: Observe otter behaviors on the [otter-cam at Monterey Bay aquarium](#).

2. INVESTIGATE FOOD WASTE

So, what is climate change? Climate change (or global warming), is the process of our planet heating up. Scientists estimate that since the Industrial Revolution, human activity has caused the Earth to warm by approximately 1°C. While that might not sound like much, it means big things for people and wildlife around the globe.

Unfortunately, rising temperatures don't just mean that we'll get nicer weather – if only! The changing climate will actually make our weather more extreme and unpredictable. As temperatures rise, some areas will get wetter and lots of animals (and humans!) could find they're not able to adapt to their changing climate.

One of the most effective places to make changes is in your kitchen. In the United States we waste a staggering 40% of the food we produce, and that waste produces greenhouse gases when it decomposes.

Food waste is a major contributor to climate change, accounting for approximately 8–10% of global greenhouse gas emissions. When food decomposes in landfills, it produces methane, a potent greenhouse gas 28–80 times more powerful than carbon dioxide at trapping heat.

You can help stop food waste and protect the planet by turning it into a fun challenge! Pick 2 challenges that can help make a big change.

Make it a Game or Challenge

- **Remix Night:** Once a week, use leftovers from other meals to make something new and tasty.
- **Mystery Box Cooking:** Try making a snack or meal using foods that need to be eaten soon.
- **“Eat Me First” Spot:** Keep a special bin in the fridge for foods that should be eaten first.

Meal Planning and Cooking

- **Help Plan Meals:** Girl Scouts can help choose the weekly menu and pick fruits and vegetables at the store.
- **Cook Together:** Help wash, mix, or chop ingredients while cooking with family.
- **Start Small:** Take small portions first and get more if you are still hungry.

Creative Ways to Use Leftovers

- **Smoothies and Popsicles:** Freeze ripe fruit for smoothies or blend it into popsicles.
- **Use Extra Food:** Turn old bread into crunchy croutons or extra veggies into soup.
- **Composting:** Put food scraps in a compost bin to help grow new plants.

Small actions like these can help the Earth and make cooking fun. Try out one of the 3 recipes provided that use common leftovers, to turn them into something new!

3. OTTERLY AWESOME ADVENTURES

Explore the ocean, learn about sea otters, and try these fun experiments. Follow the steps, make observations, and answer the questions to see how otters survive in the wild! Complete just 2 activities to meet this requirement.

Why Don't Sea Otters Get Cold? Blubber vs Fur

Materials

- Shortening or vegetable oil
- 2 zip-top bags
- Ice water in a bowl
- Timer

Steps

1. Put one hand inside a plain plastic bag.
2. Put shortening between two bags for your other hand (like a blubber layer).
3. Place both hands in ice water for about 30 seconds.

Investigate

- Which hand stayed warmer?
- Most marine mammals use blubber, but sea otters rely on super-dense fur instead. Why do you think that works?

Build an Otter Raft

Materials

- Small floating toys or corks
- String or rubber bands
- Tub of water

Steps

1. Float each toy in the water individually.
2. Connect them with string or rubber bands to make a raft.
3. Observe how the connected toys stay together better.

Investigate

- Why might otters hold hands when sleeping?
- How does sticking together help them stay safe?

Fur Density Investigation - Why Sea Otters Stay Warm

Sea otters don't have blubber. Their thick fur traps tiny pockets of air that keep them warm in cold water.

Materials

- Sponge
- Cotton balls
- Piece of fuzzy fabric or fake fur
- Spray bottle or cup of water
- Small tray or table

Steps

1. Touch the sponge, cotton, and fuzzy fabric. Which do you think would keep an animal warm?
2. Guess which material will stay driest underneath.
3. Lightly spray or pour a little water on each one.
4. Press gently and look underneath.

Investigate

- Which material worked best?
- Why do air pockets help keep animals warm?
- What might happen if an otter's fur gets dirty or oily?

Otter Whiskers Adventure - Hunt Like a Sea Otter

Sea otters have super-sensitive whiskers that help them find food in murky water or dark conditions. In this adventure, you'll use your whiskers (or hands) to hunt like a real otter!

Materials

- Small objects to hide (buttons, beads, coins, plastic toys, smooth stones, or seashells)
- Tray or shallow tub of water
- Blindfold or scarf (optional)
- 4–6 pipe cleaners or twist-ties per kid
- Tape or a small mask to safely attach the “whiskers”
- Chopsticks, pencils, or spoons (optional for “otter paws”)

Steps

1. Make Your Whiskers
 - Attach 4–6 pipe cleaners or twist-ties to the sides of your nose using tape, or attach them to a small mask.
 - These will act like otter whiskers!
2. Set Up the Ocean Floor
 - Scatter small objects in a tray or tub.
 - If you like, fill the tray with a little water to make it feel like a real otter hunting underwater.
3. Hunt With Your Whiskers
 - Close your eyes or use a blindfold.
 - Use only your whiskers (or hands) to find and identify the objects.
 - Move slowly and carefully, like a real otter searching for prey.
4. Time Your Hunt
 - Optional: See how many objects you can find in 1–2 minutes.
5. Extra Challenge
 - Compare using just your hands versus using the whiskers on your mask or tape.
 - Compare using your hands with thick gloves on.
 - Notice how much easier or harder it is to find the hidden objects.

Otter Diving Challenge - Pressure & Air Pockets

Materials

- Balloons or small sealed bags (representing an otter's air-trapped fur)
- Tub, bowl, or container of water
- Small weights (paper clips, washers, or coins)

Steps

1. Prepare the “Otter” – Blow up a balloon slightly or fill a small bag with air.
2. Place in Water – Gently put the balloon or bag in the water. Observe how it floats.
3. Add Weights – Carefully add small weights. Watch how it sinks a little but doesn't go all the way down.
4. Experiment – Try adding more air or more weights. How much air do you need to keep it afloat?

Investigate

- How does air help the balloon or bag float?
- How does this help sea otters survive in cold water?

4. CELEBRATE EARTH HOUR OR EARTH DAY

Earth Hour - A Special Night for Our Planet

Have you ever thought about how much energy we use every day? Lights, TVs, computers, and even video games all need electricity to work. But all that energy can affect our planet if we're not careful. That's why celebrating Earth Hour is so important!

Every year, people all around the world turn off their lights for one hour to show they care about the Earth and the environment. During this hour, you turn off all the lights in your house and use candles or flashlights instead. It's like giving the Earth a little rest and showing that everyone can make a difference—even kids! Earth Hour is more than just turning off lights. It's a fun way to think about nature, energy, and how we can take care of our planet every day.

Most of the time, we make electricity by burning things like coal, oil, and natural gas. These are called fossil fuels. When we burn them, they create energy, but they also release gases called carbon dioxide (CO₂) into the air. CO₂ traps heat around the Earth, almost like a big blanket, making the planet warmer. This is called global warming, and it is a big part of climate change. Using less electricity, or switching to energy from renewable sources like wind or solar, can help fight climate change.

Global warming affects animals too. For example, sea otters are impacted because warmer oceans can change where they find food. When the water gets warmer, the animals and plants that sea otters eat may move away or become harder to find. Climate change can also damage kelp forests, which are important homes for sea otters. If these habitats disappear, sea otters have fewer safe places to live and hunt for food.

You can plan your own dark hour at home, with your family, friends, or troop. Choose activities from the Earth Hour list or make up your own fun ways to enjoy time without using electricity. Even small actions can make a big difference for our planet!

So, are you ready to join the global movement and help the Earth shine brighter by giving it a little darkness? Here are some activities you can do while the lights are out.

1. Candlelit Dinner

- Turn off the lights and enjoy dinner by candlelight.
- Use local or plant-based foods.
- Talk about why saving energy is important.

2. Night Walk or Backyard Star Gazing

- Step outside with flashlights covered in red cellophane or just use the moonlight.
- Look for stars, constellations, or nocturnal animals.
- Notice how dark the sky looks without extra lights.

3. Story Time by Lantern or Flashlight
 - Gather family or friends and read books or tell stories in the dark.
 - Use a flashlight or candle to make it cozy.
 - Try sharing stories about nature or animals to connect with the planet.
4. Shadow Puppet Theater
 - Make shadow puppets on the wall using a candle or flashlight.
 - Create animal or nature scenes.
 - Use your imagination to tell a story while keeping the lights off.
5. Glow-in-the-Dark Art
 - Draw or paint with glow-in-the-dark markers or crayons.
 - Decorate a dark corner or paper so it “shines” in the dark.
 - Talk about how light can be used carefully to enjoy fun activities.
6. Quiet Reflection or Meditation
 - Sit quietly in the dark and listen to sounds around you—wind, birds, or your own breathing.
 - Think about ways to help the Earth.
 - Try a few deep breaths to feel calm and connected to nature.
7. Musical Jam Session
 - Play instruments like drums, shakers, or a keyboard in the dark.
 - Clap, sing, or make up your own songs about Earth and nature.
 - Notice how sounds feel different when it’s quiet and dark.
8. Scavenger Hunt by Flashlight
 - Hide small objects in a room before Earth Hour.
 - Use a flashlight or candle to find them in the dark.
 - Make it a challenge to use as little light as possible.
9. Glow Stick Games
 - Play simple games like “Simon Says,” tic-tac-toe, or races using glow sticks.
 - Keep the lights off to make the glow sticks extra fun.
 - Talk about how some light sources use less energy than normal bulbs.
10. “Imagine the Future” Brainstorm
 - Sit in a circle and imagine a future with cleaner oceans, forests, and skies.
 - Share ideas quietly while the lights are out.
 - Draw or write ideas after Earth Hour as a reminder of how we can help the planet.

Earth Day - Celebrate and Care for Our Planet

Have you ever thought about how much we use and take from the Earth every day? From water and food to parks and forests, everything we enjoy comes from nature. Earth Day is a special day to think about our planet and how we can take care of it.

1. Take part in a Community Clean-Up
 - Help pick up trash at a park, playground, or beach.
 - Wear gloves and use trash bags and recycling bins.
 - Sort recyclables from garbage and see how much cleaner the area looks afterward.
 - No community clean-up in your area? Grab your family and your troop to have your own clean-up day.
2. Plant a Tree or Garden
 - Plant a tree, flowers, or vegetables in your yard or community garden.
 - Choose plants that grow well in your local area.
 - Think about how planting helps clean the air and support wildlife.
3. Trash-to-Treasure Recycling Project
 - Collect recyclable items from your home and create something new: a planter from a bottle, a pencil holder from a can, or an art piece from paper scraps.
 - Donate any leftover recyclables to a local recycling center.
 - Impact: Reduces landfill waste and teaches creative reuse skills that last year-round.
4. Eco-Friendly Cooking
 - Cook a meal using local or plant-based ingredients.
 - Try a family or friend potluck with sustainable dishes.
 - Learn how food choices can help the environment.
5. Water Watch
 - Check how much water you use during the day—like while brushing teeth or washing hands.
 - Try turning off taps when not needed.
 - Learn how saving water helps plants, animals, and people.
6. Wildlife Observation
 - Sit outside and quietly watch birds, insects, or small animals.
 - Take notes or draw what you see.
 - Think about how human actions can have a negative impact animals' habitats. What can you do to help?
7. Swap for Reusables
 - Replace single-use items at home with reusable ones: water bottles, cloth bags, straws, or containers.
 - Notice how many items you use every day and which ones you can change first.
 - Challenge yourself to use your new reusable items all day.

8. “Imagine a Healthy Earth” Brainstorm

- Sit with friends or family and imagine the future of the planet.
- Share ideas for cleaner oceans, forests, and skies.
- Draw, write, or make a plan for one action you can do to help the Earth today.

9. Make Earth Day Awareness Posters

- Create colorful posters to show people why it’s important to take care of the Earth.
- Include messages about recycling, saving water, protecting animals, or planting trees.
- Hang them at home, school, or your community to spread the word.
- Impact: Teaches others about caring for the planet and inspires positive action.

10. Start a Compost Bin

- Collect food scraps like fruit peels, vegetable pieces, and eggshells in a compost bin or pile.
- Turn or mix it regularly to make rich soil for plants and gardens.
- Impact: Reduces household waste and creates nutrient-rich soil for gardens, helping plants grow better.

5. TAKE THE OTTER PLEDGE

I promise to help take care of our planet, just like sea otters take care of their ocean homes.

I will protect the animals, plants, and waters around me.

I will reduce waste, recycle, and use resources wisely.

I will learn about nature and share what I know with friends and family.

I will do my best every day to keep the Earth clean, healthy, and full of life—so that sea otters, and all creatures, can thrive.

I will be an Earth helper, just like a sea otter is a helper of the ocean!

Kelp Forest Food Chain Game

This game teaches how animals and plants in a kelp forest ecosystem are connected. In the wild, the Sea Otter, Sea Urchin, and Giant Kelp all play important roles in keeping the ocean healthy. Kelp forests provide food and shelter for many ocean animals, including fish, crabs, and seals. Healthy kelp forests help keep ocean ecosystems balanced. Girls will discover that when one species disappears, it can affect the entire ecosystem.

Recommendations

Ages: 5-12 years old

Group Size: 6-20 girls

Time: 10-15 minutes

Location: Open space, indoor or outdoor

Materials

- Green paper strips, ribbons, or pool noodles (to represent kelp)
- Open space for movement
- Optional: simple name tags for Kelp, Sea Urchins, and Sea Otters

Setup

1. Scatter the green “kelp” around the play area.
2. Divide girls into three groups:
 - Kelp – stand in place holding green strips and waving them like sea plants. (*many*)
 - Sea Urchins – move around the space eating kelp. (*a few*)
 - Sea Otters – hunt the sea urchins. (*1-2*)

How to Play

Round 1 - No Sea Otters

1. Kelp players stand still and wave their kelp leaves.
2. Sea urchins walk around and gently tag kelp plants to “eat” them.
3. When kelp is tagged, the player sits down.
4. Play for about 1 minute.

Ask girls:

- What happened to the kelp?
- Did the sea urchins eat a lot of it?

Explain:

Sea urchins love eating kelp. If there are too many urchins, they can destroy large kelp forests.

Round 2 - Add Sea Otters

1. Reset the game so all kelp stand up again.
2. Add the Sea Otters to the game.
3. Sea urchins still try to eat kelp.
4. Sea otters tag sea urchins.
5. When an urchin is tagged, they freeze or step out of the play area.
6. Play for 1 minute.

Ask girls:

- Was there more kelp left this time?
- What did the sea otters change?

Explain:

Sea otters eat sea urchins. When otters are present, they keep the urchin population under control. This helps kelp forests grow and provides homes for many ocean animals.

Because of this important role, sea otters are called a keystone species.

Easy Taco Pasta with Leftover Taco Meat

By Marlynn Schotland at urbanblisslife.com

Prep time: 15 minutes

Cook Time: 15 minutes

Servings: 4

Ingredients

- 12 ounces uncooked pasta
- 2 tablespoons olive oil
- 1/2 cup chopped bell peppers, red, orange, and or yellow; or a mix of all three!
- 1/4 cup chopped onion
- 2 finely minced garlic cloves
- Leftover taco meat – however much you have but 1 to 1-1/2 cups is recommended.
- 1 can (14 ounces) diced tomatoes
- Optional toppings: sour cream, shredded cheddar cheese, and chopped cilantro or chopped parsley



Instructions

1. Cook pasta according to package directions in a large stockpot.
2. Meanwhile, in a large skillet, heat olive oil over medium-high heat.
3. Add chopped bell peppers, onions, and garlic to the pan. Sauté over medium-high heat for about 3 minutes, stirring to ensure ingredients do not stick to the pan and also ensuring the garlic does not burn.
4. Once the onions look slightly translucent and soft, add the leftover taco meat and sauté for another 1-2 minutes to heat the meat.
5. Add diced tomatoes to the skillet and continue stirring and sautéing for another 2-3 minutes, until the tomatoes are heated.
6. Drain the pasta, leaving approximately 3-4 tablespoons of hot pasta water in the pot, and add the pasta to the skillet.
7. Stir the pasta until it is thoroughly coated with the tomato meat sauce. Add a tablespoon of the hot pasta water to the skillet as needed to help create more of a sauce.
8. Once the pasta is evenly coated with the sauce, remove from heat.
9. Top with sour cream, shredded cheddar cheese, cilantro, and/or parsley if you wish. Serve immediately.

Mashed Potato Pancakes (and Latke Twist)

Leftover mashed potatoes make these Mashed Potato Pancakes (Latkes) a snap. They're crispy on the outside and creamy, cheesy delicious on the inside.

Ingredients

- 4 teaspoons butter
- 4 teaspoons vegetable oil (or neutral olive oil)
- flour for dredging (about 1/4 cup)

Potato Pancake Mixture

- 3 cup cooled mashed potatoes (fresh, leftover or store bought)
- 1 cup grated cheese (cheddar is a great option but any kind will work)
- 1/4 cup finely chopped green onion (or more)
- 1/4 cup chopped fresh parsley
- 1/4 cup all purpose flour use less if mashed potatoes are dry and more if too wet)
- 1/4 teaspoon garlic powder
- 1 large egg
- salt and pepper to taste



Instructions

1. **MAKE POTATO MIXTURE AND PANCAKES:** Combine all potato pancake/latke ingredients in a medium bowl or large bowl. Mix well. Taste and adjust seasoning. Using your hands, form mixture into about 12 balls about 2-2 1/2 inches (6 cm) in diameter for medium latkes. Place dredging flour on a plate. Roll each ball in flour, move it to a cutting board and press down to form a pancake 1/2 inch (1.27cm) thick. Repeat with all 12 balls.
2. **FRY POTATO PANCAKES/LATKES:** Heat large nonstick skillet or cast iron if you have to medium-high heat, then lower it to Medium heat. Add 2 teaspoons butter and 2 teaspoons oil to the hot skillet. When sizzling, add half the latkes. Don't overcrowd pan. Fry for about 3-4 minutes, flip over and fry another 3-4 minutes. Drain on plate lined with paper towels. Heat the remaining butter and oil. Repeat with remaining potato pancakes/latkes.
3. **SERVE:** Serve immediately plain or with caramelized onions, a dollop of sour cream or apple sauce.

Variations

- **Cheese:** Vary the cheese. Combination of gruyere and cheddar, add some parmesan cheese if you like as well. Or, you can leave out the cheese if you wish.
- **Potatoes:** for a different taste with extra nutrition, use mashed sweet potatoes.
- **Add-ins:**
 - You can add crispy bacon if you like
 - Herbs like thyme, basil or tarragon.
 - Caramelized onions can be used as an add-in instead of a topping.

Ham and Cheese Quiche

This Ham and Cheese Quiche Recipe is a tasty way to use up leftover ham; but you can also substitute a wide variety of ingredients into this delicious breakfast pie.

Ingredients

- 5 eggs
- 1 cup half and half
- 1/2 teaspoon salt
- 1/2 teaspoon pepper
- 1 1/2 cup cooked diced ham
- 1 cup cheddar cheese
- 1/4 cup green onions, sliced
- 1 9-inch pie crust



Instructions

1. Preheat oven to 375°F.
2. In a large mixing bowl, whisk together the eggs, half and half, salt and pepper, until the egg yolks have combined with the egg whites.
3. Stir in the ham, cheese, and onions to the egg mixture.
4. Place your pie crust into a 9-inch pie pan, not a deep-dish pan. Crimp the edges of the pie crust.
5. Pour the egg mixture into the pie crust.
6. Bake for 40-50 minutes until the edges have browned and the eggs have set completely.
7. Allow the quiche to set for 5 minutes.
8. Serve.