

GSOC Quake Safe Patch Program



Living in Southern California can be fun and exciting. We have movie stars, the beach, and earthquakes. Learn about earthquakes and practice the safety measures needed to protect yourself and your family when an earthquake happens. This is an opportunity to be sure you are ready and know what you can do when an earthquake happens.

To complete this patch, choose and complete the number of activities for your level; with at least one from each category of Discover, Connect, and Take Action. Girls can earn this patch one time for each Girl Scout level (a total of 6 times).

- Girl Scout **Daisies** (grades K-1) choose and complete **three or more** activities.
- Girl Scout **Brownies** (grades 2-3) choose and complete **four or more** activities.
- Girl Scout **Juniors** (grades 4-5) choose and complete **five or more** activities.
- Girl Scout **Cadettes** (grade 6-8) choose and complete **six or more** activities.
- Girl Scout **Seniors** (grades 9-10) and Girl Scout **Ambassadors** (grades 11-12) choose and complete **seven or more** activities.

Discover

- Read a book, watch a video, or search online to find out what causes an earthquake and what happens to the earth and buildings when it occurs.
- Look at pictures of the 1906 San Francisco earthquake damage. Try to think of how daily life and technology has changed since 1906.
- Find out about Dr. Lucy Jones and her important work related to seismic activity. What state(s) is/are the least and most likely to have earthquakes?
- Take a hike along an "earthquake trail" or visit a place where you can see evidence of earth movement.
- Expand your vocabulary about earthquakes by finding the meaning of one or more of these terms: New Madrid Fault, San Andres Fault System, Pacific Ring of Fire, Pacific Plate, North American Plate, Seismographs, Seismic Waves, Wasatch Range, Seiche, Hypocenter, Epicenter, Tsunami, Moonquakes, East African Rift System. Tip: Use the words and definitions in the "Earthquake Vocabulary" included to get started.

Connect

- ❑ Draw a picture that tells something about earthquakes. Share it with your family and/or troop.
- ❑ Invite someone to talk to you and your family or troop about earthquakes. Be able to explain what "aftershocks" are and name three things that would be dangerous to do after a strong earthquake has occurred.
- ❑ Talk to your family and/or troop about what supplies you would need in case of an earthquake (emergency food, water, equipment). Talk about shopping for food that could be stored at home for emergencies. What would you buy? Why? If possible, with your family, store supplies needed for your household.

Take Action

- ❑ Make a plan with your family to improve the safety of your home. You might:
 - Check your bedroom or other rooms in your home for objects that might fall and cause injury during an earthquake and remove or relocate them if possible.
 - Develop the habit of keeping a pair of shoes by your bed at night and be ready to explain why this is a good habit.
 - With your family, set aside a place to store water, first aid supplies, a flashlight and an emergency radio (solar or hand crank).
 - Assemble a "car survival kit" for the family car.
 - Know when and how to turn off the gas, water, and electricity in your home.
 - If your home was without gas and electricity for several days, how would you and your family keep warm, cool and cook? Think of ways you can be prepared to help your family be as comfortable as possible.
 - Know how to use a propane camp stove. Cook a meal for your troop or family using the stove.
- ❑ Learn some basic first aid. You might:
 - Invite an older Girl Scout or health care professional to teach you.
 - Check out the steps to earn the First Aid Badge for your level.
 - Complete a basic first-aid course offered by the Red Cross or a local hospital.
 - Complete a certified cardiopulmonary resuscitation (CPR) course offered by the Red Cross or a local hospital.
 - Demonstrate your new skills for your family, troop, and/or younger Girl Scouts.
- ❑ Make a plan with your family to be prepared. You might:
 - Talk to your family about what you should do if you are not all together in the same place when a strong quake occurs.
 - Complete a "Family Emergency List" with all the appropriate phone numbers and addresses.

- Participate in an earthquake drill. Talk about what to do during a strong quake at home, at school, at a troop meeting, in a car, in a public place, and the outdoors.
- Make a list of family, neighbors, and friends you want to check on after an earthquake.
- Plan a well-balanced menu for two days that will not require cooking on a gas or electric stove. If possible, make emergency fuel and cooking equipment to use during a power failure (buddy burner, fire starters).
- Know where to find drinking water at your house if the water pipes are broken. Know how to purify water.
- Learn more about natural human reactions of fear, anxiety, and stress that occur when an earthquake is over and what to do to manage these feelings.
- Find out how you can help your community before, during, and after a disaster.

Helpful Links

- <https://www.ocgov.com/about/emergency/preparation/earthquake>
- <http://www.readyoc.org/prepare/why-prep.html>
- <https://www.211oc.org/earthquake-preparedness-information.html>
- <https://www.ocfa.org/SafetyPrograms/DisasterPreparedness.aspx>

Earthquake Vocabulary

AFTERSHOCKS

Smaller earthquakes following the hardest shake.

EARTHQUAKE

The earth vibrations caused by passing seismic waves that come from the release of energy when sudden movement along a fault occurs.

EPICENTER

The point on the earth's surface directly above the place where the rock first breaks or slips in an earthquake.

FAULT

A weak zone or break in the earth's crust where rocks have fractured and moved.

FORESHOCKS

Smaller earthquakes preceding the strongest shake.

LIQUEFACTION

The mixing of soil, sand and water to form a "jello-like" substance into which structures may settle during an earthquake.

MAGNITUDE

A measure of earthquake size based on the size of the waves recorded on seismographs.

PLATES

Large, rigid segments of the earth's crust and part of the mantle below, broken into 12 major and many minor sections that "float" on a plastic, flowing mantle layer.

MAGNITUDE SCALE

The scale that measures earthquake magnitude or size. Each larger number on the scale represents an increase in 30 times the amount of earthquake energy released.

SEISMIC ACTIVITY

A sudden movement of the Earth's crust caused by the release of stress accumulated along geologic faults.

SEISMOGRAPH

An instrument which detects, and records earth motions produced by passing seismic waves.

TSUNAMI

A long ocean wave usually caused by sea floor movements in an earthquake.

Disaster and Home Emergency Supplies

Survival

- stored food and water
- first aid kit and book
- critical medication and glasses
- portable radio and batteries
- fire extinguisher
- flashlight by each bed
- shoes under each bed
- sleeping bags and tent/tarp
- candles and matches

Safety

- helmet
- heavy shoes and gloves

Sanitation

- large plastic trash bags and cans
- small bucket and plastic bags for use as a portable toilet
- pre-moistened towelettes
- feminine and infant supplies
- toilet paper
- newspapers for garbage, waste, warmth,
- splints

Cooking

- BBQ, charcoal, fire starters, or camp stove
- matches
- pots, pans
- paper plates and towels
- plastic utensils and bags

Tools

- axe
- shovel
- broom
- crescent wrench for turning off valves
- screwdriver
- pliers
- hammer and nails
- sheets of plastic and plywood to cover broken windows
- wire and cutters
- rope
- plastic tape
- pen and paper

Car Mini-Survival Kit

- bottled water
- non-perishable food and opener
- first aid kit
- critical medication
- blanket
- flares
- fire extinguisher
- flashlight, batteries, and bulb
- tools i.e., jack, tow rope
- plastic bags
- books and games