

**BE READY**  
**1-2-3**

# **EARTHQUAKES**



**American Red Cross**

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## EDUCATIONAL OBJECTIVES:

After completing this unit it is desirable that the student be able to:

1. Explain what causes an earthquake.
2. Demonstrate how to "Duck, Cover and Hold On."
3. Identify Safety Spots in the classroom and at home.
4. Identify important Safety Kit items.
5. Choose an Earthquake Buddy.

## SUPPLIES NEEDED:

- \_\_\_\_\_ Disaster Dog Puppet
- \_\_\_\_\_ *Be Ready* Books (one per student)
- \_\_\_\_\_ Earth plates and felt board
- \_\_\_\_\_ Disaster Dog's Safety Spots & scotch tape
- \_\_\_\_\_ Disaster Dog's Earthquake Safety Inside Rules Poster
- \_\_\_\_\_ Disaster Dog's Earthquake Safety Outside Rules Poster
- \_\_\_\_\_ Disaster Dog's Diary
- \_\_\_\_\_ Disaster Dog's Safety Kit
- \_\_\_\_\_ Earthquake Buddy (stuffed animal)
- \_\_\_\_\_ *Be Ready 1-2-3* certificates (one per student)
- \_\_\_\_\_ Red Cross stickers (one per student)

## INTRODUCTIONS: (2 minutes)

Introduce yourself and state that you are here to teach a lesson from the *Be Ready 1-2-3* program developed by the American Red Cross.

Introduce Disaster Dog:\* Hold up Disaster Dog and tell the class that she's here to teach us about earthquakes, and how to stay safe during one.

## WHAT CAUSES AN EARTHQUAKE?: (5 minutes)

Demonstrate: Using the felt board, place the felt pieces on in the following order, explaining what they represent as you proceed:

- Earth
- Core
- Plates (place around the Earth in any order)
- Volcano (use to show how hot, molten material can work its way to the earth's surface)

\*For information on working with puppets, see Appendix B.

After the felt board pieces have been placed, explain and show how the extreme heat from the center of the earth causes gigantic rocks called plates to be pushed together and pulled apart. All of the squeezing and stretching builds up a lot of force that can cause the plates to snap and break, causing an earthquake.

***Instructor Note:*** Contact your local emergency management office for earthquake potential in your area. Specific information for western Oregon can be found in Appendix D.

**EXPERIMENT:  
“HANDQUAKES”  
(5 minutes)**



**Explain:** To show how extreme pressure between plates can cause them to slip, you will ask the students to create their own “handquakes.”

**Demonstrate:**

1. Press your hands together, with your palms touching.
2. Push one palm hard against the other.
3. At the same time, press the other palm hard in the same direction. (Imagine the force with which the plates grind into each other.)
4. Keep pressing. Your “palm plates” will slip with a sudden jerk, creating a “handquake.”
5. Tell the students that the place where your hands meet is your fault line. The fault line is where earthquakes occur.

**DUCK, COVER  
AND HOLD ON:  
(8 minutes)**

**Explain:** Tell the students you are going to read from Disaster Dog’s diary, which tells the story of her experience in an earthquake. The students should listen carefully to see how Disaster Dog was able to survive the earthquake.

**Read:**

**Diary Entry: November 6.** I was watching a late night movie (*Revenge of the Fleas*), when suddenly my house began to shake like crazy! I quickly ducked under my desk for cover and held on tight. I even wrapped my tail around the desk. Boy was I one petrified pup!

I heard things crashing to the floor. A window shattered right above the couch where I was sitting to watch TV! It seemed like the shaking went on for hours, even though it was only a few seconds. When the house stopped shaking, I was still trembling with fear, but I knew that I had done the right thing by ducking under my desk and holding on tight. I had survived the earthquake unharmed!

Ask and Discuss: “Where could Disaster Dog--or *you*--go in this room during an earthquake?” (Explain that the most danger during an earthquake is from falling objects.)

Practice: Have students pick out a “Safety Spot” for an earthquake drill. If there are not enough desks and tables, then suggest they choose corners of the room, away from windows and unsecured bookcases. Tell the students that sometime today you will shout “Earthquake!” When you do, they should go to their chosen “Safety Spot” and “Duck, Cover and Hold On” until you tell them to go back to their places. Pretend Disaster Dog needs to tell you a secret. After he whispers in your ear say, “Disaster Dog says, ‘Earthquake!’ ” Complete the drill.

Display: Read “Disaster Dog’s Earthquake Safety Inside Rules” and “Outside Rules” posters together.

Activity: “I’m thinking of a Safety Spot.” Tell the students that you have looked around the room and have found some excellent Safety Spots to use during an earthquake. Ask the students to guess which one you are thinking of, and to say why it would be a good Safety Spot. When a child guesses correctly, give him or her a round Safety Spot sign to place on it. (Tape it down if necessary.)

**I’M PREPARED!  
(5 minutes)**

Explain: During the earthquake at Disaster Dog’s house, Disaster Dog did three *other* very important things to be prepared, things that you can do at your house, too.

1. Show: Disaster Dog’s Safety Kit

Explain: “Disaster Dog had a Safety Kit ready to use in case of an emergency, and it really helped her survive the earthquake.”

“See if you can guess what items were useful to Disaster Dog after the earthquake.” (Show each item as they are mentioned after giving the following clues.)

- a) The lights were out, so this helped Disaster Dog to see. (Flashlight with batteries.)
- b) The electricity went out, so Disaster Dog’s TV did not work. What could help her find out what was going on in the news? (Battery-powered radio or TV.)
- c) Disaster Dog needed this to open the cans of dog food she had stored in her Safety Kit. (Manual can opener.)

- d) Disaster Dog needed to wear these while she cleaned up so she wouldn't cut her paws on broken glass.  
(Heavy work gloves.)

Ask: "What other Safety Kit items should you have on hand?"

2. Read: (Disaster Dog continues her diary)

...I was sure scared being home alone during the earthquake. I wanted to run outside and try to get my mom and dad, but I remembered the plan we came up with in case we were in different places during an earthquake. So I stayed put and waited, and waited, and waited until they were finally able to get home. I remembered they told me it might take awhile before we would all be together, and they were right.

Ask: "Why was it important for Disaster Dog to have a plan on how to meet up with her family if they were separated during an earthquake?"

3. Show: Have Disaster Dog hug his Earthquake Buddy.

Explain: "If it weren't for her little Earthquake Buddy here, she would have been really scared. But Earthquake Buddy kept her company, played games with her, gave her hugs, and calmed her down until her parents got home. Go home tonight and pick out a special Earthquake Buddy to keep you company in case you are ever in an earthquake."

**EARTHQUAKE!**  
(5 minutes)

Yell "Earthquake!": Evaluate the response by the group. Praise them for a quick and correct response.

Assign: Tell the students to find Safety Spots in each room when they go home, and to share this information with their family members.

**CONCLUSION**  
(5 minutes)

Disaster Dog should now pass out a *Be Ready Book* to each student. Instruct students to look at pages six and seven which discuss earthquakes. Identify a time when these pages can be completed before the next *Be Ready* lesson. It is recommended that, to ensure availability, the *Be Ready* books stay in the classroom until all three lessons have been taught. If this is the last lesson, send the books home with the students and ask them to complete page eight ("Ready or Not?") with their parents.

Hand out the *Be Ready 1-2-3* completion certificates. If this is the first lesson taught, ask each student to write his or her name on the certificate. (If their abilities prohibit this, have the names written on prior to the first lesson.) Give each student a Red Cross sticker and direct them to place it over the circle located under Disaster Dog on the certificate. Tell them that, as they complete each *Be Ready* lesson, they will get a sticker.

Congratulate everyone for completing the Earthquakes lesson of the *Be Ready 1-2-3* course. Collect the certificates, unless all three lessons have been completed. If this is the last lesson taught, send the certificates home to be proudly displayed.

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