

## PREPAREDNESS ACTIVITY #1

Grades 2 and Up

### My ShakeOut Story

This activity is one of several in a basic curriculum designed to increase student knowledge about earthquake science and preparedness. The activities can be done at any time in the weeks leading up to the ShakeOut drill. Each activity can be used in classrooms, museums, and other educational settings. They are not sequence-bound, but when used together they provide an overview of earthquake information for children and students of various ages. All activities can be found at [www.shakeout.org/schools/resources/](http://www.shakeout.org/schools/resources/).

Please review the content background (page 3) to gain a full understanding of the material conducted in this activity.

#### OBJECTIVE:

For students to write a story that conveys their knowledge of earthquake preparedness

#### MATERIALS/RESOURCES NEEDED:

- ShakeOut Location Cards sheet
- Earthquake Simulation Script
- Copies of Brainstorming Worksheet for each student
- Copies of ShakeOut Story handout for each student

#### PRIOR KNOWLEDGE:

In order to conduct this activity, students must have knowledge of what might occur during and after an earthquake.

#### ACTIVITY:

##### Set-Up (15 minutes)

Print out one copy of the ShakeOut Location Cards sheet and cut out the cards into 42 individual slips of paper. Preview the Earthquake Simulation Script before reading to students.

##### Procedure (35 minutes)

The italicized phrases are spoken suggestions for the instructor.

1. Tell the students they are going to be in a simulated earthquake.  
*Today, we will be in a simulated earthquake. I am going to read a script and when I say "Drop, Cover, and Hold On" I want you to drop, cover, and hold on.*  
Read the script. The first three paragraphs should take approximately 45 seconds.
2. Distribute the ShakeOut materials and give one ShakeOut Location Card to each student.  
*The card you receive will assign a location for the ShakeOut Story you will write.*
3. Have the students fill out the brainstorming activity.  
*In order to get your thoughts together, we will fill in the Brainstorming Worksheet. Just*

*follow the arrows and fill in the boxes to outline your ShakeOut Story.*

Answer any questions students might have about their particular location. Refer to the “Content Background” for guidance.

4. Have students write and illustrate their ShakeOut Story.

*Now you will start writing your ShakeOut Story on the other handout. Use the brainstorm worksheet to guide you in your writing. Remember to include the information we have learned about earthquakes. Be creative in the picture box. I want to see where you are and what you are doing in your story.*

5. Students will then share their stories.

*Now that everyone is done, who would like to share their story?*

Have three or four students share their stories.

6. (Optional) Have students share their earthquake safety knowledge.

*Now we will create posters to educate other students about earthquake safety. You can be creative and work individually or in groups. We can post them throughout the school when we are finished.*

## CONTENT BACKGROUND:

The Earthquake Simulation Script is based on an intensity of VI on the Modified Mercalli Scale. Earthquake intensity is a measure of the effects of an earthquake at a particular place. Intensity is determined from observations of an earthquake's effects on people, structures, and the Earth's surface. The Mercalli scale uses Roman numerals from I to XII to rank relative levels of destruction, ground motion, and human impact.

### **For the Brainstorming Worksheet:**

*Close your eyes and imagine this place. What do you see? List down everything that you see:*

Encourage students to note both what exact items surround them in the room/location and what is happening to these objects as they experience intense shaking. These are items that could be potential hazards. Also have the students note the reactions of other people in the area and what they are doing in response to the initial shaking. Incorporate earth science by having students discuss what is causing the intense shaking.

*What is your first instinct? How do you react?*

Have students truthfully determine what their response will be to an earthquake. Make sure the students know to Drop, Cover, and Hold On; however, reiterate the most important aspect: to protect oneself by staying in one place to avoid injury from falling or flying objects. Recall the Safe Areas activity and guide students to determine proper emergency procedures and find areas protected from potential hazards (such as under sturdy furniture or near interior walls away from windows and mirrors).

*List any emotions or thoughts that are going through your mind during the earthquake:*

Varies based on the students.

*What do you do once the earthquake stops?*

Have students determine the extent of the damage from the earthquake and whether they are trapped in rubble or have mobility. If the former, remind students to protect their mouths, noses, and eyes from dust; apply pressure to wounds and try to elevate injured body parts to reduce bleeding; and signal for help by blowing a whistle or knocking loudly to save the energy that would otherwise be exerted by yelling. If the latter, encourage students to remember their emergency plans, grab their disaster supplies kits, and first ensure their personal safety before attending to others. Once safe, students can help others and begin to check for injury and damage.

*What are some problems? What has been damaged?*

Potential problems may include:

- 1) Injury – bleeding, unconsciousness, sprains, fractures, burns, cuts, bruises.
- 2) Damage – fires, gas leaks, torn electrical wiring, broken fixtures and appliances, downed power lines, fallen items, spills, weakened masonry.

*What do you do to fix these problems? How do you prevent future earthquake damage?*

### Injuries:

Check your first aid kit or the front pages of your telephone book for detailed instructions on first aid measures. If a person is bleeding, put direct pressure on the wound. Use clean gauze or cloth, if available. If a person is not breathing, administer rescue breathing. If a person has no pulse, begin CPR (cardiopulmonary resuscitation). Do not move seriously injured persons unless they are in immediate danger of further injury. Cover injured persons with blankets or additional clothing to keep them warm. Get medical help for serious injuries. Carefully check children or others needing special assistance.

### Damage:

**Fire** – If possible, put out small fires in your home or neighborhood immediately.

Call for help, but don't wait for the fire department.

**Gas Leaks** – Shut off the main gas valve only if you suspect a leak because of broken pipes or the odor or sound of leaking natural gas. Don't turn it back on yourself - wait for the gas company to check for leaks. The phone book has detailed information on this topic.

**Damaged Electrical Wiring** – Shut off power at the main breaker switch if there is any damage to your house wiring. Leave the power off until the damage is repaired.

**Broken Lights and Appliances** – Unplug these as they could start fires when electricity is restored.

**Downed Power Lines** – If you see downed power lines, consider them energized and stay well away from them. Keep others away from them also. Never touch downed power lines or any objects in contact with them.

**Fallen Items** – Beware of items tumbling off shelves when you open the doors of closets and cupboards.

**Spills** – Use extreme caution. Clean up any spilled medicines, drugs, or other non-toxic substances. Potentially harmful materials such as bleach, lye, garden chemicals, and gasoline or other petroleum products should be isolated or covered with an absorbent such as dirt or cat litter. When in doubt, leave your home.

**Damaged Masonry** – Stay away from chimneys and walls made of brick or block. They may be weakened and could topple during aftershocks. Don't use a fireplace with a damaged chimney. It could start a fire or let poisonous gases into your home.

### How to Prevent Future Earthquake Damage:

- 1) Identify potential hazards in your home/classroom, such as hanging objects and large furniture, and begin to secure them.
- 2) Create a disaster preparedness plan so everyone knows what to do before, after, and during an earthquake.
- 3) Prepare a disaster supplies kit and make sure it is easily accessible.
- 4) Identify potential building weaknesses and begin to fix them.
- 5) Protect yourself during an earthquake – Drop, Cover, and Hold On.

Encourage students to reflect on anything they might do differently next time to better prepare.

For more information, see the Southern California Earthquake Center publication, *Putting Down Roots in Earthquake Country*, accessible online at: [www.earthquakecountry.org](http://www.earthquakecountry.org).

## Earthquake Simulation Script

Imagine that you hear a low, rumbling sound. The noise builds, getting louder and louder. Then WHAM! There's a terrific jolt. You feel like someone suddenly slammed on the brakes in the car, or like a truck just rammed into the side of the building. You hear someone say...

### **Earthquake! Drop, Cover, and Hold-On.**

The floor seems to be moving beneath you. You might feel like you're riding a raft down a fast river. The building is creaking and rattling. Books are falling from the bookcase. Hanging lamps and plants are swaying. Suddenly a pot falls to the floor and smashes. A windowpane just shattered, and glass is falling to the floor. The table is sliding; you hold on to it and move with it.

Pictures are moving on their nails. One just fell off the wall and crashed to the floor. The lights begin to flicker on and off...the lights just went out! Now the door swings back and forth on its hinges. Bang! It slams shut.

[a few moments silence]

The building is still now. The alarm is still wailing. In the distance you can hear helicopters flying overhead. In the distance you hear sirens from police cars and fire engines.

Please remain quiet. You may come out from under your desk. Check yourself and your neighbor to make sure you are both unharmed.

## ShakeOut Location Cards

|             |             |             |               |               |               |
|-------------|-------------|-------------|---------------|---------------|---------------|
| Kitchen     | Kitchen     | Kitchen     | Bedroom       | Bedroom       | Bedroom       |
| Living Room | Living Room | Living Room | Dining Room   | Dining Room   | Dining Room   |
| Garage      | Garage      | Garage      | Backyard      | Backyard      | Backyard      |
| Beach       | Beach       | Beach       | Park          | Park          | Park          |
| Library     | Library     | Library     | Cafeteria     | Cafeteria     | Cafeteria     |
| Playground  | Playground  | Playground  | Grocery Store | Grocery Store | Grocery Store |
| Classroom   | Classroom   | Classroom   | Mall          | Mall          | Mall          |

# ShakeOut Story – Brainstorming Worksheet



