

## ShakeOut Activities

Grade Level: 3-5

Purpose: To practice earthquake and tsunami drills. The Shake Out activities ([www.shakeout.org](http://www.shakeout.org)) correlate with the annual Shake Out drill in which many schools and organizations participate in order to be prepared to survive and recover from big earthquakes.

Time: One 50 minute session (for procedure #1-4) and one to two additional 50 minute class sessions (for procedure #5-8)

Educational Standards:

3-PS2-1, 3-5-ETS1-2, ESS2-1, ESS3-1, ESS3.B, ESS1.C, 4-ESS1-1, 4-ESS3-2, R1.3.1, R1.3.7, SL.5.5, 5-ESS2-1, 5-ESS2-2

Materials:

- Kamome book - The Extraordinary Voyage of Kamome, A Tsunami Boat Comes Home, by Lori Dengler and Amya Miller
- Map or diagram of school evacuation plan (should be posted in classroom)
- Access to a computer with internet access

Procedure:

1. Prior to an earthquake drill, read pages 1- 10 in The Extraordinary voyage of Kamome to the class.
2. Practice your earthquake drill – Drop, Cover and Hold On – Go to: <https://www.shakeout.org/dropcoverholdon/> for specific steps. This link includes a Resources Section with guidelines for people with disabilities as well as guidelines for an earthquake event when you cannot get under a table.

• *For the teacher – you may want to review these audio and visual broadcasts on your own, and only tell students what they might observe during an earthquake. This media should be used with caution with young children.*

<https://www.shakeout.org/california/resources/index.html#multimedia>

<https://www.shakeout.org/california/drill/broadcast/index.html>

*for audio and visual downloads. Another resource with earthquake sounds, for the teacher, is*

[https://www.seismosoc.org/inside/earthquake\\_sounds/](https://www.seismosoc.org/inside/earthquake_sounds/)

(a) Tell students to count from the beginning of the earthquake drill until the end. Discuss with students that earthquakes lasting 20 seconds or more can generate a tsunami and you must evacuate to higher ground if in a tsunami zone.

3. Complete the school evacuation plan for an earthquake and for a tsunami event, if you're in a tsunami zone. Go to: Plan Your Drill at [www.shakeout.org](http://www.shakeout.org)

4. After your earthquake drill: complete the group activity, Human Waves Demonstrate How Seismic Waves Travel activity [5-10 min], for a total physical response lesson for students to understand seismic wave motion. Have students physically model and demonstrate a tsunami wave. They will be modeling a P wave to demonstrate the transfer of energy of a tsunami wave across the ocean.

(a) Play IRIS video "Modeling Seismic Waves;  
[https://www.iris.edu/hq/inclass/video/human\\_wave\\_modeling\\_seismic\\_waves\\_in\\_the\\_classroom](https://www.iris.edu/hq/inclass/video/human_wave_modeling_seismic_waves_in_the_classroom) (stop video at 1 min, 25 sec)

5. Complete reading the book, The Extraordinary voyage of Kamome, with the class. Discuss with students the story of Kamome, the symbolism of hope and resilience presented, and following the practice drills, the awareness they may now have of preparing for the event of an earthquake and tsunami. Discuss the physical appearance of the Kamome boat, such as the barnacles attached to it, The Japanese characters written on it and how this can be part of evidence of a large event (tsunami) in a far away place (Japan) and a long voyage of the boat over a great distance. Refer to the map on the inside cover of the Kamome book to explain where the Japan earthquake occurred and where the Kamome boat was ultimately found.

6. Guide students to put together a personal kit for an earthquake emergency to keep at school. Send home a list for families to guide/ remind them on earthquake emergency supplies. [www.ready.gov/build-a-kit#](http://www.ready.gov/build-a-kit#)

7. Go to: <https://rocketrules.org/shakemob/> for instructions on participation in a flash mob (shakemob) shake out challenge.

8. Go to: <https://www.youtube.com/channel/UCD6FReusfOWZdBq3EoG7L3A> for a Rocket Dog safety video (for ages 3-9)

#### Extension Activities:

1. See page 45 in The Extraordinary voyage of Kamome for suggested activities.

2. For grade 5:

(a) Use information from Kamome along with several other sources on tsunami boats to write or speak on this topic (R1.5.9, 5-ESS3-1, W.5.8)

2. Go to: <https://r2r.calstate.aaa.com/schools/> for a free downloadable lesson plan from AAA NCNU. The lesson plan includes a fun and interactive music video, engaging, education activities, and take home resources for students.

3. The Federal Emergency Management Agency (FEMA) has a couple resources useful to schools too:

- [FEMA 527 – Earthquake Safety Activities for Children and Teachers](#)
- [FEMA P-1000, Safer, Stronger, Smarter: A Guide to Improving School Natural Hazard Safety](#)