

# STEP SUPPLEMENTAL HAZARD LESSON

## EARTHQUAKES



Read the story about earthquakes in Alaska and answer the questions.

### The Day the Earth Shook

My Grandpa Nick and I were at the park when we felt the ground shudder a little, kind of like a big truck was rumbling by. “Drop, cover, and hold on,” I shouted as I ran toward a picnic table to scramble underneath. But that slight rumble was all that happened. This time.



I live in Anchorage, Alaska. We get a lot of earthquakes here, and we just get used to feeling a little shaking every once in a while, which is what happened when I was with my grandpa at the park. But there are also big, scarier earthquakes as well.

A few years ago just after I got to school the building started shaking. Everyone in the class dropped to the floor immediately. We crouched under our desks, with our arms protecting our heads. When it was over, we could see that lots of books and ceiling tiles had fallen to the floor and the smart board at the front of the classroom was dangling off the wall.

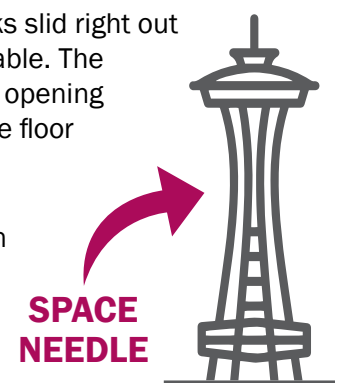
Grandpa Nick was a boy when the biggest quake ever in the United States struck. It’s now called the Great Alaska Earthquake. Here’s what he told me:

### Grandpa’s Story

“It was March 1964, and I was home from school on spring break, although as usual it was still snowy and not much like spring at all. Your great Aunt Jenny and I were watching TV, and my mom – your great-grandma – was starting to make dinner. The house began shaking like crazy and we all dove to the floor and hung on.

“I’m not going to lie. It was really frightening. Pictures on the walls started falling and books slid right out of their shelves onto the floor. Bowls my mom was cooking with clattered off the kitchen table. The quake lasted only four minutes, but it seemed like forever. We had to be careful afterward opening cupboards because glasses and plates had slid to the edge and would have crashed to the floor otherwise.

“Here in Anchorage, we were 75 miles away from the quake’s epicenter, which is where an earthquake begins. The shaking ripples out from that center, so we felt it quite a lot. But places much farther away felt it too. The 500-foot tall Space Needle in Seattle 1,200 miles away quivered. Water in lakes and rivers splashed around as the Earth shook as far away as Texas, more than 4,000 miles away.



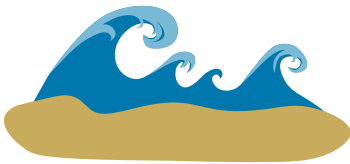
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“But the ground shaking wasn’t the only thing that caused so much destruction. It also caused a tsunami, giant waves in the ocean that flooded beaches and parts of towns not just in Alaska, but in the states of Washington and Oregon, and Canada, too.

### What’s a tsunami?



A **tsunami** (pronounced soo-nahm-ee) is a series of waves caused by a large and sudden disturbance of the sea, often from an earthquake. Tsunami waves move outward in all directions from where the earthquake started and can move across entire oceans. The waves that come ashore can be 100 feet or higher.

“Our family was lucky that day. Our house wasn’t too damaged. We had to rebuild the front porch since it collapsed, though. However, landslides triggered by the earthquake destroyed a lot of buildings and cars in Anchorage. We had no electricity for days, and had to use our woodstove to stay warm.

“Thinking of that giant earthquake is a good reminder that we need to make sure we’re prepared if another big quake strikes. Earthquakes can damage power plants so we could lose electricity. They can also damage natural gas lines, and the gas has to be turned off to stay safe.

“That’s why today at your house and my house we have an emergency kit with three days of food and water, as well as a battery-powered radio, flashlights, and extra batteries. I even have extra cat food for my cats. Also, because an earthquake can happen anytime, we make sure we have extra wood for our fireplaces and woodstoves in case we lose power in the winter.”



## Staying Safe Today

After Grandpa Nick finished telling me about the earthquake when he was a boy, I started wondering what else we could do to prepare and stay safe. He told me that buildings are now constructed to be stronger so they can survive earthquakes better.

Although Grandpa Nick told me we can’t predict when an earthquake will strike, he said we do know that they can cause tsunamis, which can endanger people who live along the ocean’s coast. Officials will put out a warning to leave the area if there will be a tsunami near you. This is the time to move to higher ground away from the water. Even though it might sound really interesting to view such a giant wave, once you’re close enough to see it, it’s too late to escape it since it moves so fast, Grandpa Nick said.

In all this time since Grandpa Nick was a boy, there hasn’t been an earthquake that powerful again. But I know Alaska has more earthquakes than any other region in the United States, about 1,000 every month. I’m glad most of them are small like the one we had today, and I’m also glad that while they can be scary, we know what to do if another big one strikes.

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### The Day the Earth Shook

1. What are some words used in the story to describe the motion of the ground during an earthquake?

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2. If the earthquake took place in 1964, how many years ago was it? \_\_\_\_\_

3. What are three things that the earthquake caused to happen?

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4. What can you do to prepare for an earthquake before it happens?

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5. What three actions should you take if you feel the ground start to shake?

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6. What's the most important thing to do if you hear a tsunami warning? Do you think you could have a tsunami near where you live?

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