



Earthquake & Tsunami Preparedness for Washington Schools

OSPI Webinar – October 2, 2025

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Pacific Northwest Seismic Network, University of Washington

Our goal today:

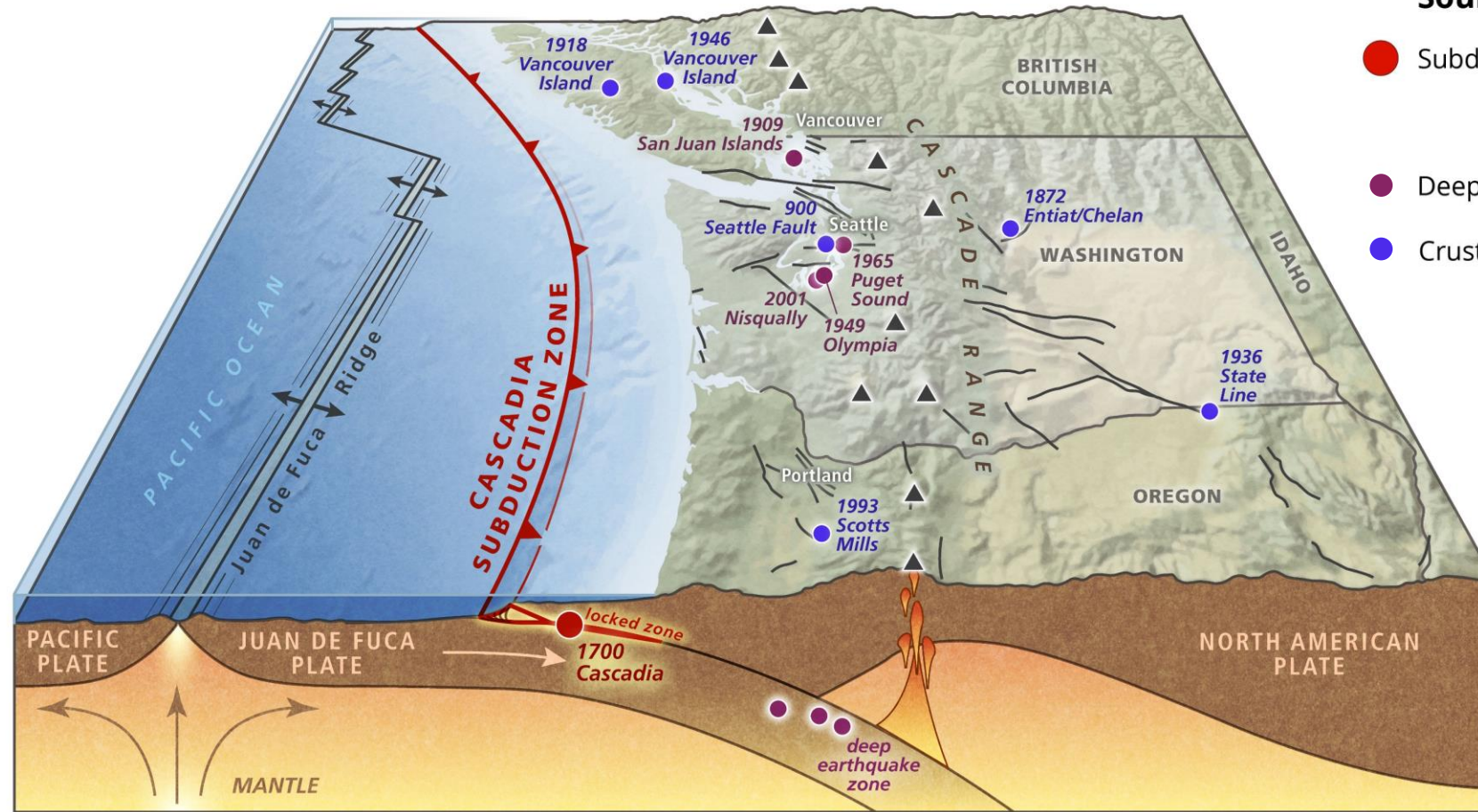
Help you build a mental model for earthquakes and your school

- What happens during an earthquake? What happens when an earthquake occurs during school hours?
- What would you do during an earthquake at home with your family? What would you do if an earthquake happened at school?
- How can your school become better prepared to respond to an earthquake?

A map of the Pacific Northwest region, including the United States and Canada, showing the distribution of earthquakes. Numerous grey circles of varying sizes are plotted along the coastlines, representing seismic activity. A prominent red line follows the western coast of North America, likely indicating a major tectonic boundary. The background is a topographic map with green land and blue water. A black rectangular box with white text is overlaid on the lower right portion of the map.

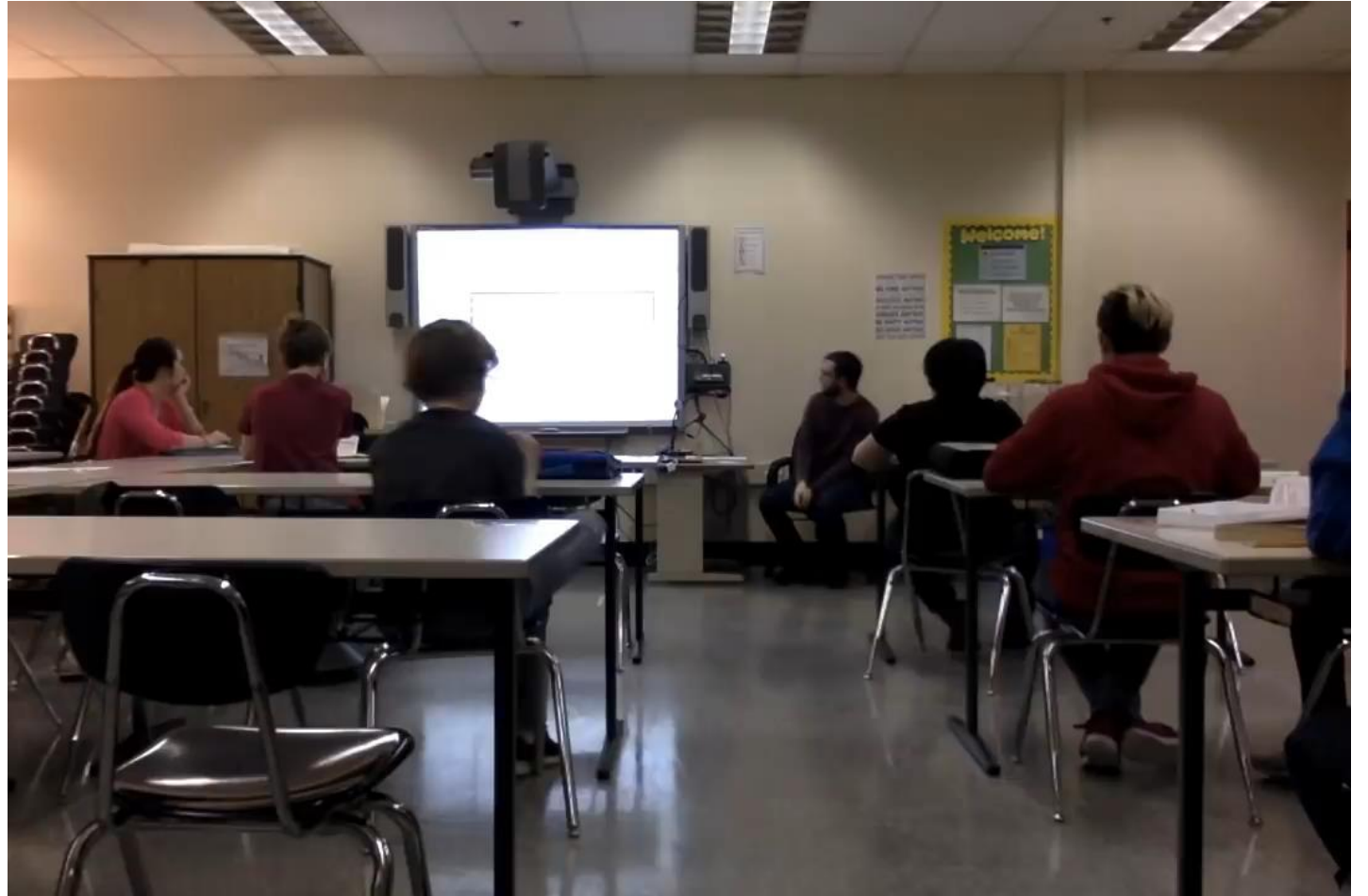
**Why do we have
earthquakes in
Washington?**

There are 3 kinds of damaging earthquakes in WA



Source	Max. Size	Recurrence
● Subduction Zone	M 9	500-600 yr
	M 7+	300-500 yr
● Deep Juan de Fuca plate	M 7+	30-50 yr
● Crustal Faults	M 7+	Hundreds of yr?

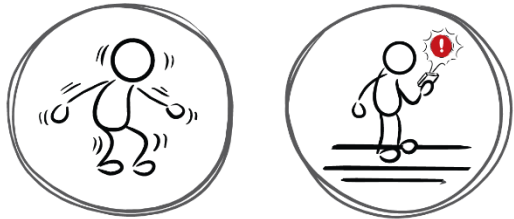
What is it like
to be in an
earthquake?



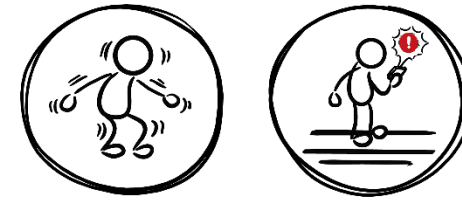
What is it like to be in an earthquake?

- Earthquake shaking can last a few seconds or up to several minutes.
- You might hear a loud noise from the ground or from clattering furniture or building components
- The earthquake can feel like a pulse, or violent shaking, or gentle rolling
- Injuries most often happen when people are knocked to the ground or when heavy objects land on people.

What should you do if you feel an earthquake?



If you **FEEL SHAKING** or **GET AN ALERT...**



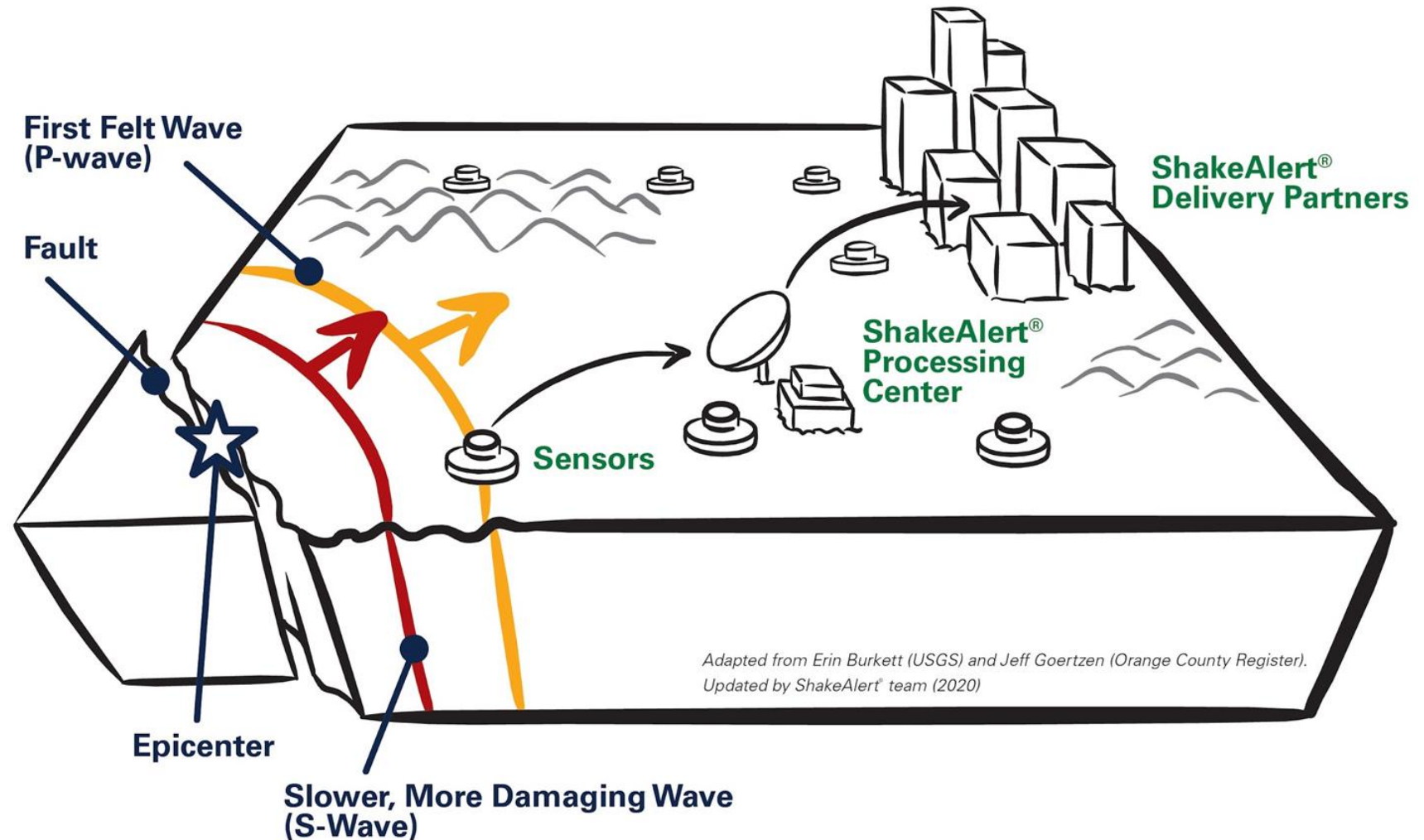
If you **FEEL SHAKING** or **GET AN ALERT...**

When possible:	 DROP!	 COVER!	 HOLD ON!
Using a cane?	 DROP!	 COVER!	 HOLD ON!
Using a walker?	 LOCK!	 COVER!	 HOLD ON!
Using a wheelchair?	 LOCK!	 COVER!	 HOLD ON!
In a bed?	 TURN!	 COVER!	 HOLD ON!

Earthquake Early Warning for Washington schools

ShakeAlert Earthquake Early Warning can protect people in schools

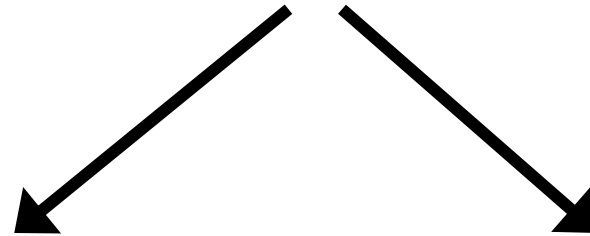
What would you do if you had 15 seconds of warning before shaking starts?



Adapted from Erin Burkett (USGS) and Jeff Goertzen (Orange County Register).
Updated by ShakeAlert[®] team (2020)

Shake!lert™

Data product in XML format



**Mass public
alerting via
smartphones**

Customized
automated
actions

ShakeAlert-Powered Earthquake Early Warning on Your Cell Phone

Available in Washington, Oregon, and California

Wireless Emergency Alerts

Sent by FEMA to all
WEA-capable cell phones

Minimum magnitude 5.0

Light Shaking or Greater (MMI IV+)

Android Alerts

Sent by Google to all
Android phones

Minimum magnitude 4.5

Weak to Light Shaking (MMI III-IV): Be Aware

Moderate Shaking or Greater (MMI V+): Take Action

Cell Phone App

Sent by the MyShake
App (requires download)

Minimum magnitude 4.5

Weak Shaking or Greater (MMI III+)

ShakeAlert

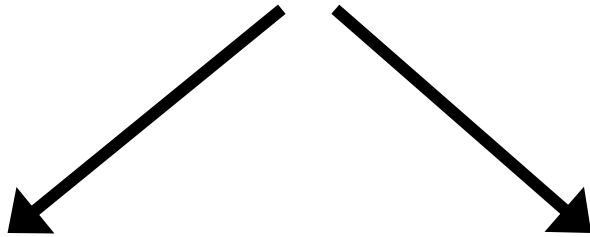
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[wags.gov/FAQ/
BeShakeAlertSafe](https://wags.gov/FAQ/BeShakeAlertSafe)



Shake!lert™

Data product in XML format



Mass public
alerting via
smartphones

**Customized
automated
actions**



**Public
Announcements**

ShakeAlert® Earthquake Early Warning in Schools



The Challenge and the Opportunity

An earthquake in a school setting is dangerous. Strong ground motion can topple furniture, dislodge ceiling tiles, and toss students and teachers to the ground.

Stanwood-Camano is the first school district in WA to connect to ShakeAlert. Now, ShakeAlert protects nearly 5,000 staff and students across 13 buildings.



- Student and staff have **time to protect themselves**.
- **Earthquake drills** are more realistic.
- ShakeAlert is incorporated into earth science **curriculum** and reinforces learning.



Several vendors provide low-cost ShakeAlert solutions to schools



Learn more about vendor services here:

<https://drive.google.com/drive/folders/1hesObaqXGZABvCir4Vjapa2hZbu-gAl2>

Schools have access to high-quality educational resources



- Classroom activities and lesson plans
- Educational videos and animations
- Tools for earthquake drills and exercises

Get started at [IRIS.edu/ShakeAlert](https://www.iris.edu/ShakeAlert)

ShakeAlert Ready schools get even more resources

For administrators

- ShakeAlert Ready Schools planning guide
- Webinar for administrators

For teachers

- Staff professional development
- School curricula customized by grade, K-12

For parents

- Parent/guardian presentation
- Family engagement letter

Resources available at: www.shakealert.org/education-and-outreach/shakealert-ready-schools/

Funding may be available for your school to implement ShakeAlert – reach out for more details

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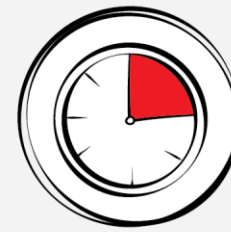
**Saves lives and
minimizes
injuries**



**Reduces earthquake
damage to property
and infrastructure
systems**



**Reduces
economic impacts
of earthquakes**



**Speeds the return to
normal operations
and community
recovery**