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Classi: Quarta e Quinta
Corso: C.A.T.

EARTHQUAKES



NATURAL DISASTERS

Earthquakes



- ▶ Natural disasters that can cause death and property damage
- ▶ A natural effect of the Earth's constantly changing surface
- ▶ Occur every day as small tremors
- ▶ Unpredictable
- ▶

The release of energy: Seismic waves

- ▶ The Crust of the Earth is made up of pieces
- ▶ These pieces move slowly around and slide past each other
- ▶ These areas are the **TECTONIC PLATES** and their edges are the **PLATE BOUNDARIES**



made up of faults



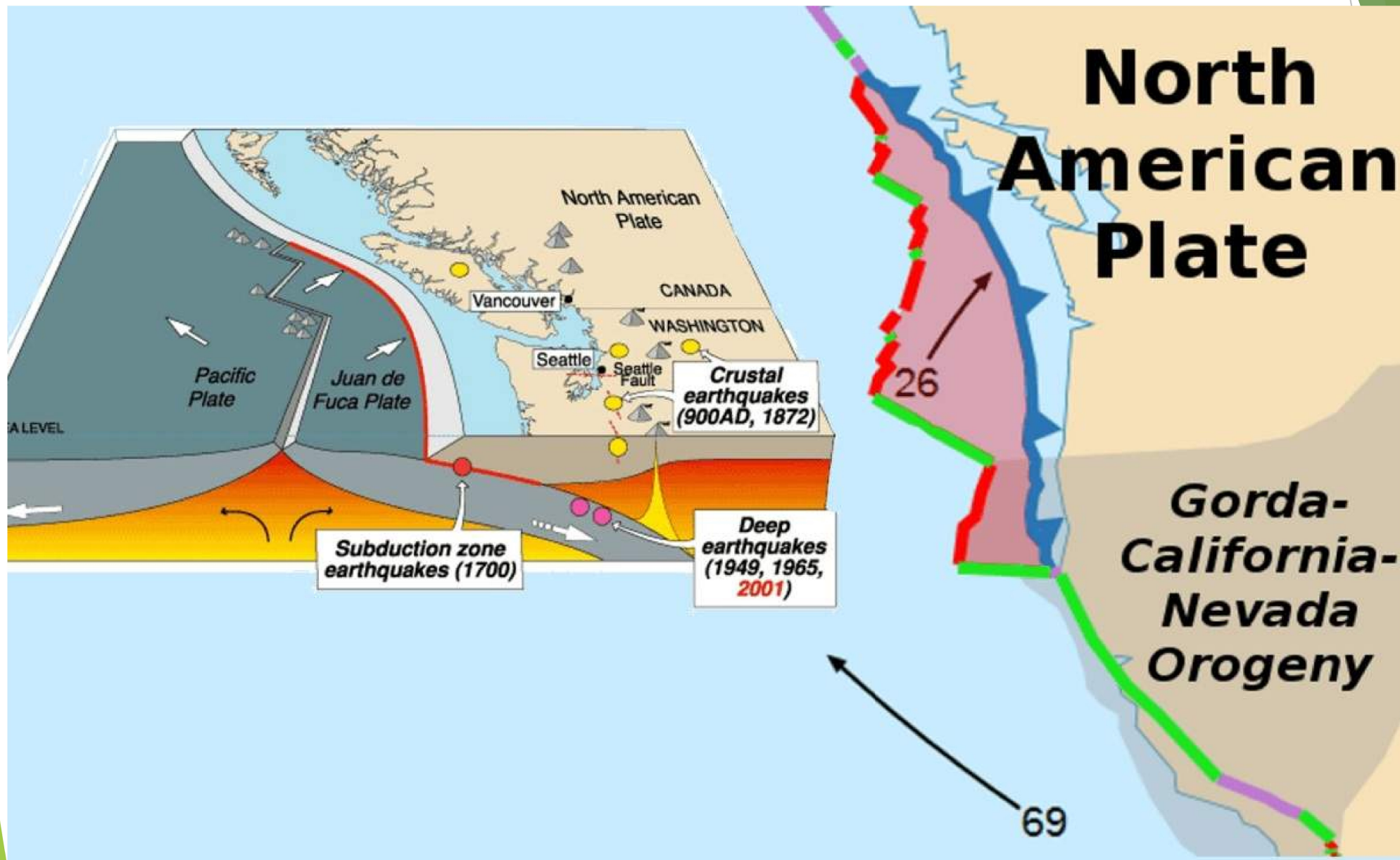
most of the earthquakes occur



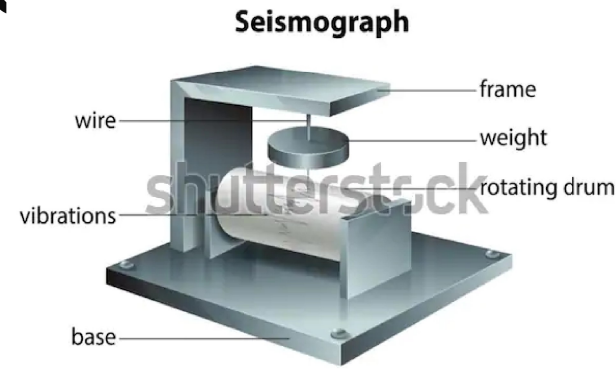
- ▶ The **ENERGY** that normally cause the blocks to slide past one another , starts storing up
- ▶ When the force of the moving blocks overcomes the friction of the edges of the faults , all the stored **ENERGY** is released
- ▶ The **ENERGY** radiates outward from the fault in all directions in the form of **SEISMIC WAVES**

what
shake the Earth

when
reach the Earth's
surface they shake the
ground and anything on it



Instruments to record Seismic waves = SEISMOGRAPHS



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▶ Seismograph Stations record the time , location and magnitude of an Earthquake

- Hypocentre = area below the Earth's surface where the Earthquake starts
- Epicentre = the location on the surface of the earth

MAGNITUDE and INTENSITY

Magnitude measures the amount of seismic energy released in an earthquake

SCALES

The Richter magnitude of an earthquake

is determined from the logarithm of the amplitude of waves recorded by seismograph

is expressed in whole numbers and decimal fractions

The Mercalli intensity scale is used

to measure the intensity of an earthquake

It quantifies

the effects of an earthquake on the Earth's surface, humans, objects of nature and man-made structures on a

scale from **I** (not felt) to **XII** (total destruction)

SAFETY TIPS

What to do **during** an earthquake

 <p>DROP!</p>	 <p>COVER!</p>	 <p>HOLD ON!</p>
 <p>CALM DOWN Try to stay as calm as possible</p>	 <p>INSIDE Stay away from furniture, windows and lamps</p>	 <p>OUTSIDE Stay away from buildings, walls and power poles</p>
 <p>If you are driving stop in a safe place, turn on the hazard lights and stay inside the vehicle</p>	 <p>If you use a wheelchair, put the brakes on in a safe place and protect your head with your arms</p>	 <p>If you are in a crowded place, protect your head with your arms or take cover under seats and tables</p>



Sources:

- ▶ CHEMISTRY WISE San Marco ed.
- ▶ UNDER CONSTRUCTION San Marco ed
- ▶ WEB Video