

FAULTS, EARTHQUAKES AND UPLIFT

Move it, move it !!

What are they?

- ❑ Fault: a break or fracture in the crust of Earth.
- ❑ Earthquakes: shaking or trembling of the earth caused by movement along a fault.
- ❑ Uplift: upward movement of Earth's crust.

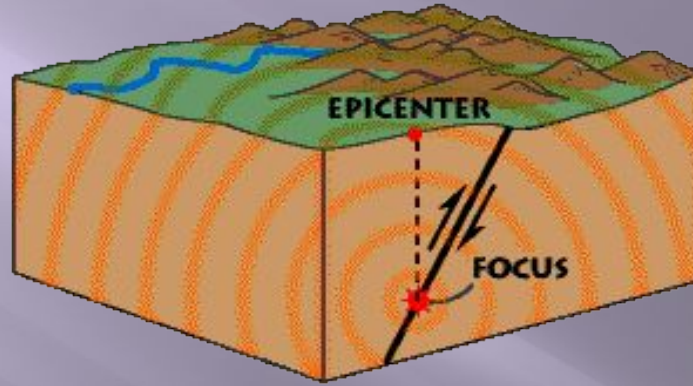


Faults

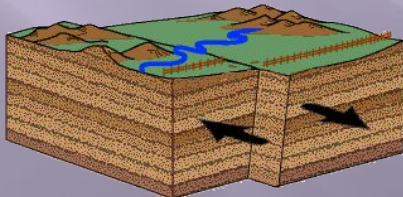
- Faults are blocks of the earth's crust that meet together. Scientists identify four types of faults, characterized by the position of the fault plane, the break in the rock and the movement of the two rock blocks.
- Faults lines are under enormous pressure from the two pieces of the earth's crust pushing together.
- The faults will eventually give way to the pressure causing earthquakes and creating mountain ranges.



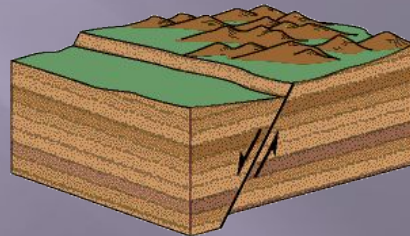
Types of Faults



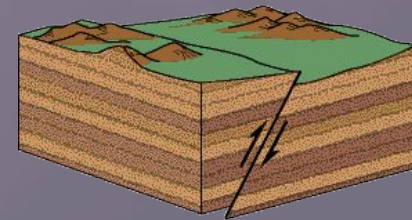
Strike-slip fault



Normal fault



Reverse fault



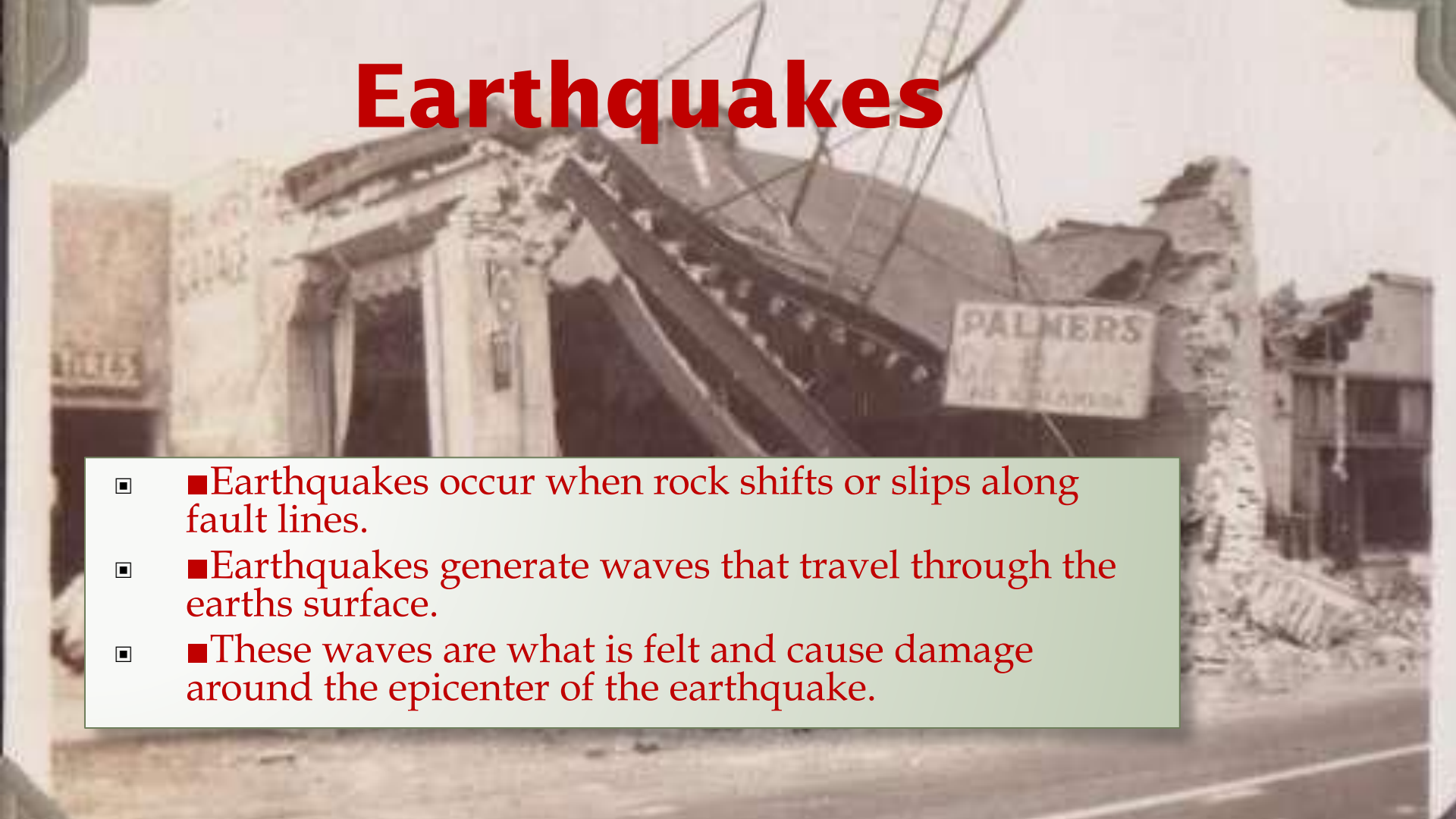


Timpanogas Cave Faults



A fault is very important to the cave.
Through the fault line the water can flow
through the crack and form beautiful cave
formations

Earthquakes



- ■ Earthquakes occur when rock shifts or slips along fault lines.
- ■ Earthquakes generate waves that travel through the earth's surface.
- ■ These waves are what is felt and cause damage around the epicenter of the earthquake.

MEASURING EARTHQUAKES

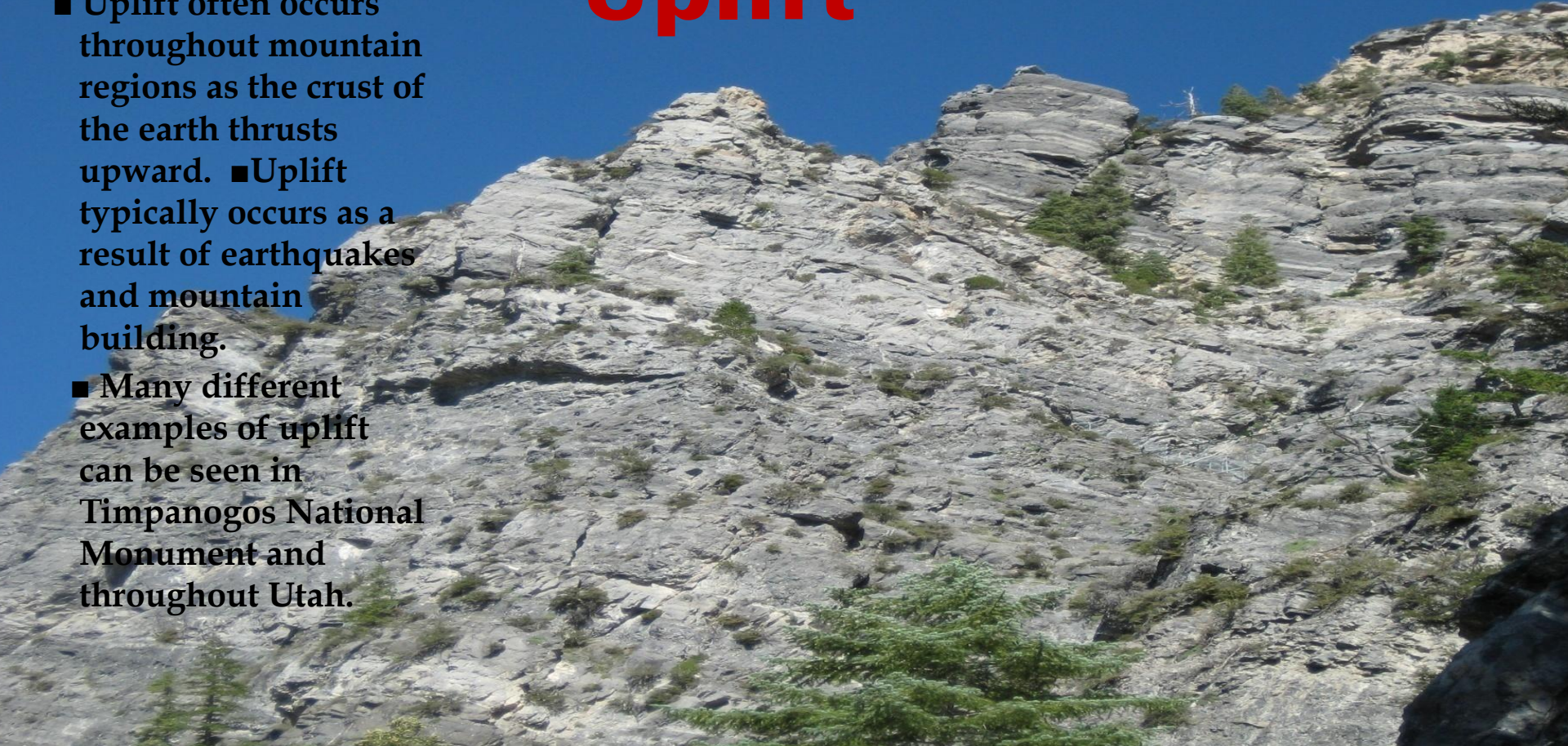
- ▣ Measuring earthquakes is a vital part to letting us know how big the earthquake was and what activity might be going on in the earth's surface.
- ▣ Earthquakes are measured by seismographs. A seismograph is an instrument that measures the size and strength of the seismic waves that are released during an earthquake.

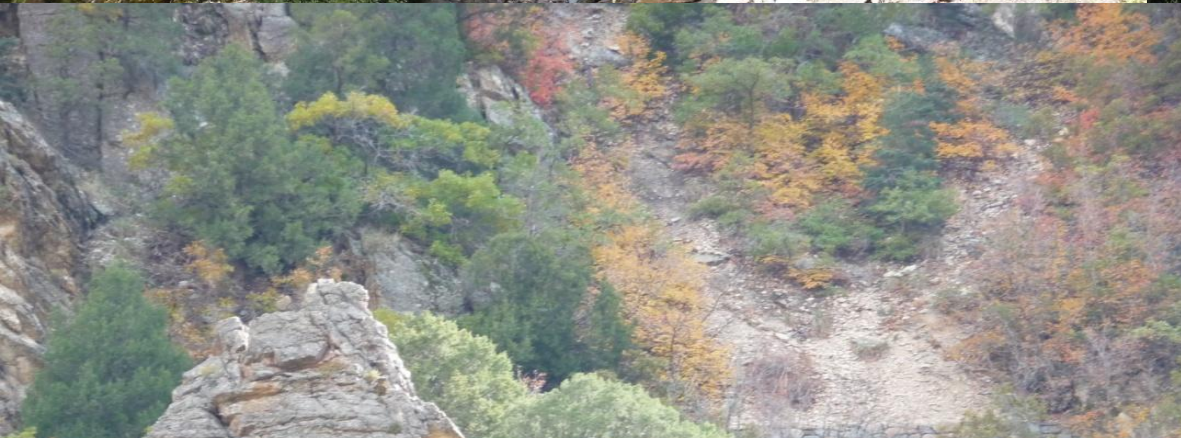




Uplift

- Uplift often occurs throughout mountain regions as the crust of the earth thrusts upward. ■ Uplift typically occurs as a result of earthquakes and mountain building.
- Many different examples of uplift can be seen in Timpanogos National Monument and throughout Utah.





SNICKERS FAULTS

1. Wash your hands!
2. Open your Snickers bar and use your fingernail to make a few breaks in the “crust”
3. Pull the candy bar carefully apart. As the “plates” move apart, you can see the caramel underneath and will be able to see an example of tension.
4. Now push the candy bar back to where it originally started. Move the ends of the candy bar in opposite directions. This is shearing.
5. Now pinch the candy bar together. This is what happens when plates collide and form mountain ranges. Notice how some of your chocolate pieces are overlapping each other.

THE MOST DAMAGED EARTHQUAKES IN TURKEY

1) 1999- 17th of August

7,4 -> Gölcük (epicenter)

At 3.01 a.m

18.372 dead

Unofficial Numbers: 50.000

48.000 Injured people

5.000 Lost

150.000 Buildings were damaged



23rd of October 2011

1.41 a.m (epicenter)

Van, Tabanlı Village

604 Dead

4152 Injured

So many buildings were
damaged



24th of January 2020

6.8 -> Elaziğ (epicenter)
In the evening 8.55 p.m
At least 41 dead people
So many injured people



The biggest earthquake in Turkey occurred on 17 August in Kocaeli/Gölcük.





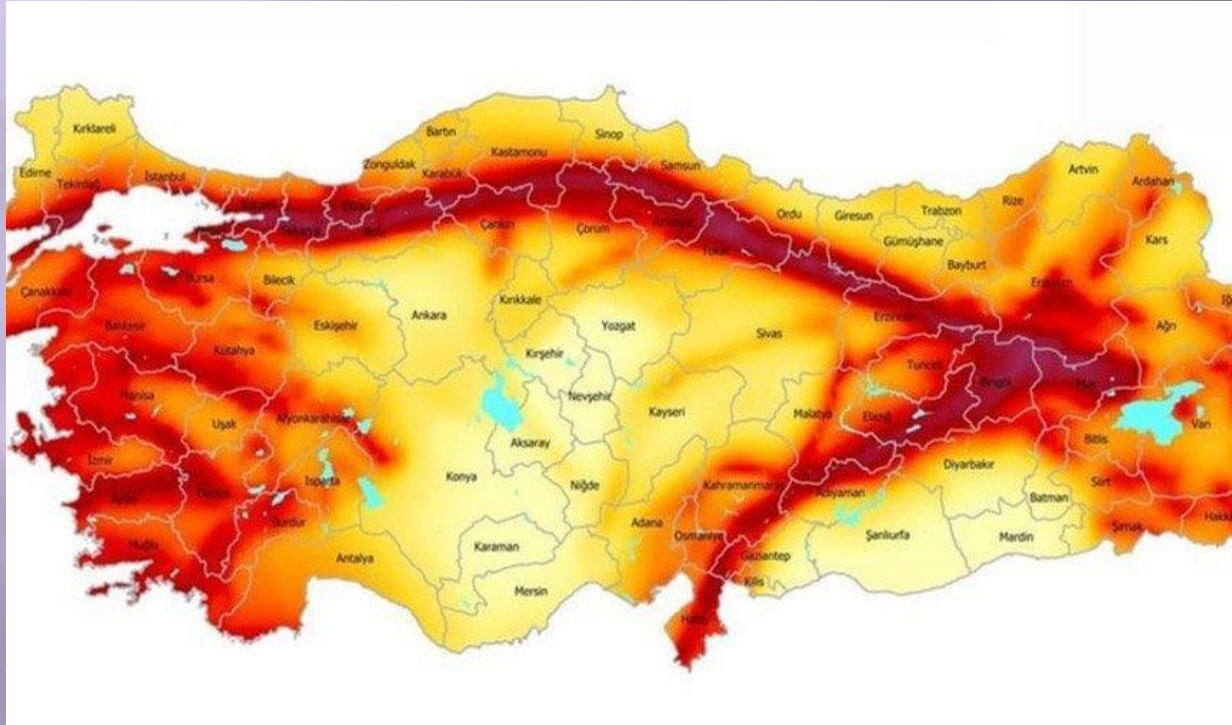
**Negligence
kills people,
not
earthquakes**



The earthquake that took place in Chile on the continent of South America on May 22, 1960 is the largest earthquake ever measured.



Turkey's fault lines.



A black and white photograph capturing a powerful avalanche in a snowy mountain landscape. A massive, turbulent wall of snow is the central focus, cascading down a slope. The snow is thick and billowing, with some dark rocks or debris visible within the flow. In the background, a line of dark evergreen trees stands against a clear, dark sky. The foreground shows a snow-covered slope with some tracks or indentations. The overall scene is one of intense natural power and winter wilderness.

Avalanche in Van

Avalanche in Van

So many people and Turkish Soldiers are dead.
22 people of rescue team also died.





Turkey