

Earthquakes

- State that earthquakes are most frequent at tectonic plate boundaries.
- Explain what causes earthquakes suddenly.
- Explain why people might not evacuate overtime there is an earthquake warning.

Earthquakes

Starter: Think Pair Share

Are all earthquakes the same?

Which Earthquakes are more dangerous?

Do they occur everywhere?

Earthquakes

We have millions of Earthquakes around the world every year but most are not even felt by people.

We use sensitive equipment called seismometers which produce seismographs to detect these Earthquakes.

Tremors from 7.5 magnitude earthquake in Afghanistan felt in Qatar

By: SHABINA S. KHATRI | October 26, 2015
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Residents from across Qatar have reported feeling the aftershocks of a powerful earthquake that originated in Afghanistan this afternoon. According to tweets, the tremors were felt in West Bay, Al Sadd, old Airport and other parts of the country shortly before 12:30pm.

ThisisMe
@AkoltoSiAriana

@dohanews anyone feels earthquake!!!!???

12:16 PM - 26 Oct 2015



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Ian Edelman
@ianedelman

Anyone just feel the earth move? @dohanews

12:16 PM - 26 Oct 2015



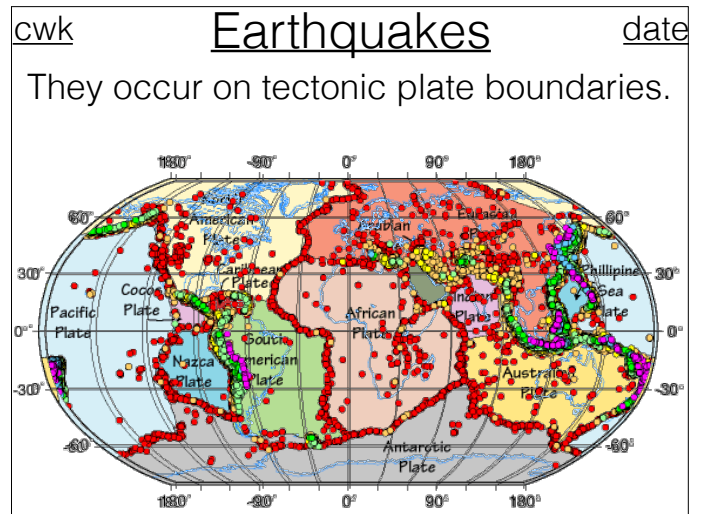
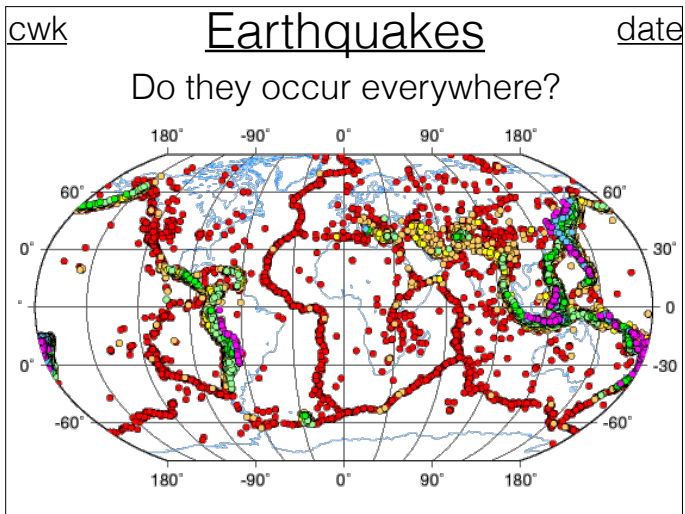
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There are about 500 000 earthquakes every year. On 12 January 2010 there was an earthquake near Port-au-Prince in Haiti. Many buildings were destroyed causing the deaths of thousands of people. The earthquake did not come as a surprise to scientists who predicted the earthquake a week earlier. The Government and people ignored the prediction.



The Richter scale

Magnitude	Description	What it feels like	Frequency
Less than 2.0	Micro	Normally only recorded by seismographs. Most people cannot feel them.	Millions per year.
2.0-2.9	Minor	A few people feel them. No building damage.	Over 1 million per year.
3.0-3.9	Minor	Some people feel them. Objects inside can be seen shaking.	Over 100,000 per year.
4.0-4.9	Light	Most people feel it. Indoor objects shake or fall to floor.	10,000 to 15,000 per year.
5.0-5.9	Moderate	Can damage or destroy buildings not designed to withstand earthquakes. Everyone feels it.	1,000 to 1,500 per year.
6.0-6.9	Strong	Wide spread shaking far from epicenter. Damages buildings.	100 to 150 per year.
7.0-7.9	Major	Wide spread damage in most areas.	10 to 20 per year.
8.0-8.9	Great	Wide spread damage in large areas.	About 1 per year.
9.0-9.9	Great	Severe damage to most buildings.	1 per 5-50 years.
10.0 or over	Massive	Never Recorded.	Never recorded.



cwk Earthquakes date

Why might Earthquakes be difficult to predict?

Earthquakes are caused by sudden movements of the Earth's tectonic plates.

Tectonic plates are moving but friction stops them from moving all the time so pressure builds up until the force is bigger than the friction and then they move suddenly.

This is what causes an earthquake. Tectonic plates might not move at all for years then move a few meters in a few seconds.

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Why are the effects of the Earthquake on people who live there?

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If earthquakes are so destructive why don't people evacuate everyone there is a mild tremor?

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Scientists don't know **exactly where** earthquakes are going to happen.

Scientists don't know **exactly when** earthquakes are going to happen.

Scientists don't know **how strong** earthquakes are going to be.

Evacuation is very expensive.