

## Geography

Wednesday 20<sup>th</sup> May 2020

### WALT understand earthquakes

#### Success Criteria:

I can describe how earthquakes happen

I can describe what an earthquake is

I can describe the different types of earthquakes

I can identify the four inner parts of the earth

#### Key vocabulary:

<b>Earthquakes Word Mat</b>			
<b>What?</b>	<b>Where, why, when?</b>	<b>Effects</b>	<b>Help for victims</b>
aftershock	epicentre	avalanche	aid
earthquake	fault	damage	evacuate
natural hazard	fault line	death	recover
pressure	focus	destruction	relief
shake	plate	disaster	search and rescue team
tsunami	plate boundary	emergency	shelter
wave	Richter scale	flooding	ShelterBox
	Ring of Fire	landslide	
	seismograph	short term	
	seismometer	long term	

Destructive: destroys

Ring of fire: Where many earthquakes and volcanic eruptions happen.

( image from

<file:///C:/Users/Administrator/Downloads/Oddizzi%20KS2%20Earthquakes%20Full%20Resource%20Pack%20FINAL.pdf>)

Please write the date, WALT and success criteria into your purple book.

In today's lesson you will be learning all about earthquakes.

First you will copy out and fill in the KWL grid down below. You will write down what you already know about earthquakes and what you want to know.

At the end of the lesson you will fill out the **what I have learnt** section. Before you fill it in, make sure you write 'after the lesson' next to the heading (what I have learnt).

<b>What I KNOW...</b>	<b>What I LEARNT...</b>
<b>What I WANT to find out...</b>	

(image from

<file:///C:/Users/Administrator/Downloads/Oddizzi%20KS2%20Earthquakes%20Full%20Resource%20Pack%20FINAL.pdf>)

Now you will watch a couple of the videos below to learn all about earthquakes and how fascinating they are, but just how destructive they can be.

<https://www.bbc.co.uk/bitesize/topics/z849q6f/articles/zj89t39> what are earthquakes?

<https://www.youtube.com/watch?v=hlePrsXTGxQ> what are earthquakes?

[https://www.youtube.com/watch?v=AArne-wh\\_Uc&list=PLSnc9S5mNZYAdZWmD2-RPYPNEGU95kCoC&index=527](https://www.youtube.com/watch?v=AArne-wh_Uc&list=PLSnc9S5mNZYAdZWmD2-RPYPNEGU95kCoC&index=527) earthquakes

The video below shows you how earthquakes happen using food. It is very cool!

<https://www.youtube.com/watch?v=Flgksa3x11w> what causes earthquakes?

You can now use food to show how earthquakes happen. Make sure to ask an adult to see if you are allowed to use food and do not use anything hot as it is dangerous. If you are allowed to, then create a video and upload it to the padlet for everyone to see.

Next, you will read the fact files below to find out more information about earthquakes that may have not been in the videos above.

## What is an earthquake?

An earthquake is a natural hazard – it's when the ground shakes beneath your feet. These events can be very destructive.

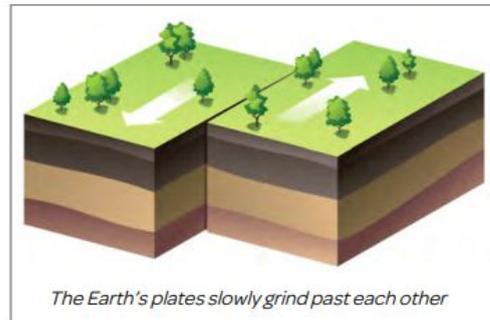
### Why do they occur?

The Earth's outer layer is made up of massive slabs of rock, called plates. As these plates move, they rub against each other. Sometimes, plates become stuck, even though they're still being pushed or pulled along. The pressure builds and then... snap, crack! One plate suddenly slips or snaps. This release of energy causes the earth to shake – it's an earthquake!

People can't predict exactly when earthquakes will happen.

### Where do they occur?

Most earthquakes occur along plate boundaries, but some take place on or near a crack (called a 'fault') within a plate. An earthquake event can cause even more 'faulting' (cracking) of rocks underground.



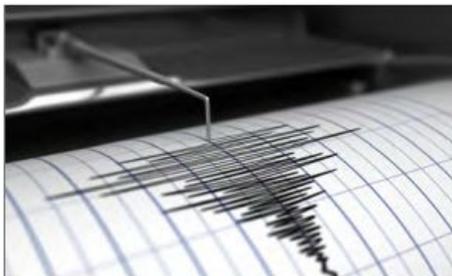
*The Earth's plates slowly grind past each other*

**About 90% of the world's earthquakes occur around the Pacific Ring of Fire.**

Did you know?

## The Richter scale

Earthquake events are measured against the Richter scale (named after Charles Francis Richter, one of its inventors). This is a scale of earthquake strength: it's based on the distance moved by the vibrating pen of a seismometer (an instrument that detects waves of energy). The graph drawn by the shaking pen is called a seismograph.



*Seismometers around the world detect quakes*



*Earthquake damage in Italy 2016*

With each jump up the Richter scale – for instance, from 6 to 7, or from 7 to 8 – the earthquake's energy is ten times stronger. So what might sound like a small difference – between a quake measuring 6.0, for example, compared with another measuring 6.3 – could actually mean a big difference in terms of the chaos caused on the ground, and the death toll.

### What effects do earthquakes have?

An earthquake can last for just a few seconds – and might not do too much damage – but could last for several minutes. Violent shaking for several minutes, or a series of shorter, more powerful shakes, can cause even the tallest skyscraper, or strongest bridge, to collapse in a pile of rubble. People inside may be injured or killed by falling masonry.

Quakes have an instant effect! But they also create longer-term problems for communities. Electricity, water and gas supplies can be cut when pipes move and break. Often, people can't even get away from the affected area, as transport routes – roads and railways – are likely to be closed due to damage from the quake. Food supplies can run low and diseases may spread amongst people living in makeshift camps.





(image taken from

[https://www.google.com/search?q=kids+earthquake+safety&rlz=1C1GCEU\\_enGB893GB893&tbm=isch&source=lnms&sa=X&ved=0ahUKewiFn4GDgq7pAhVTT8AKHdbBCm8Q\\_AUICigB&biw=1366&bih=657&dpr=1#imgrc=ggJEUsm1wPcG-M](https://www.google.com/search?q=kids+earthquake+safety&rlz=1C1GCEU_enGB893GB893&tbm=isch&source=lnms&sa=X&ved=0ahUKewiFn4GDgq7pAhVTT8AKHdbBCm8Q_AUICigB&biw=1366&bih=657&dpr=1#imgrc=ggJEUsm1wPcG-M) )