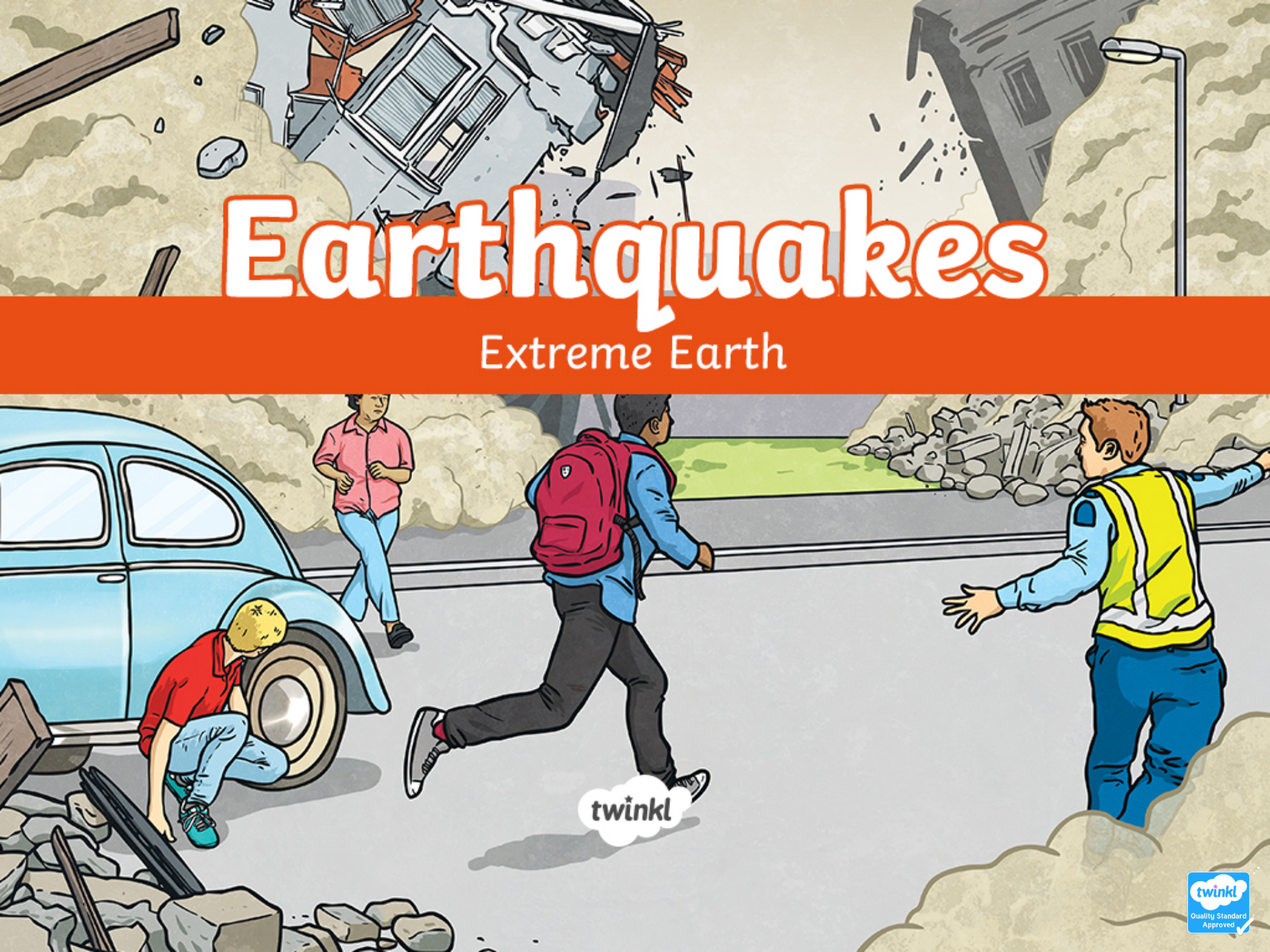
Earthquakes

Extreme Earth

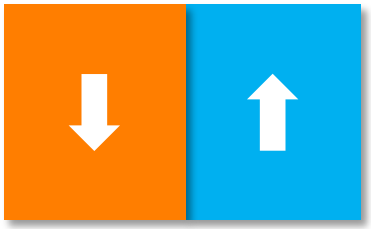


How Do Tectonic Plates Move?

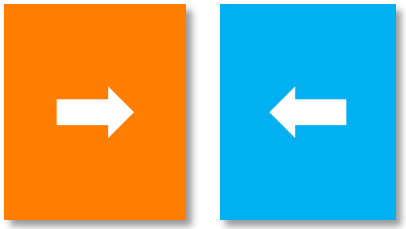
Use the two pieces of paper you have been given.

Can you remember the different ways you can move the plates around?

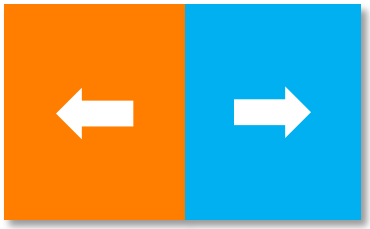
Rubbing together



Towards each other



Away from each other



This kind of movement causes earthquakes.

Why Do Earthquakes Happen?

Earthquakes can cause a lot of damage because they make the ground shake!

- Things can fall off shelves.
- Pictures can fall off walls.
- Furniture can move.
- Trees and telegraph poles might sway.

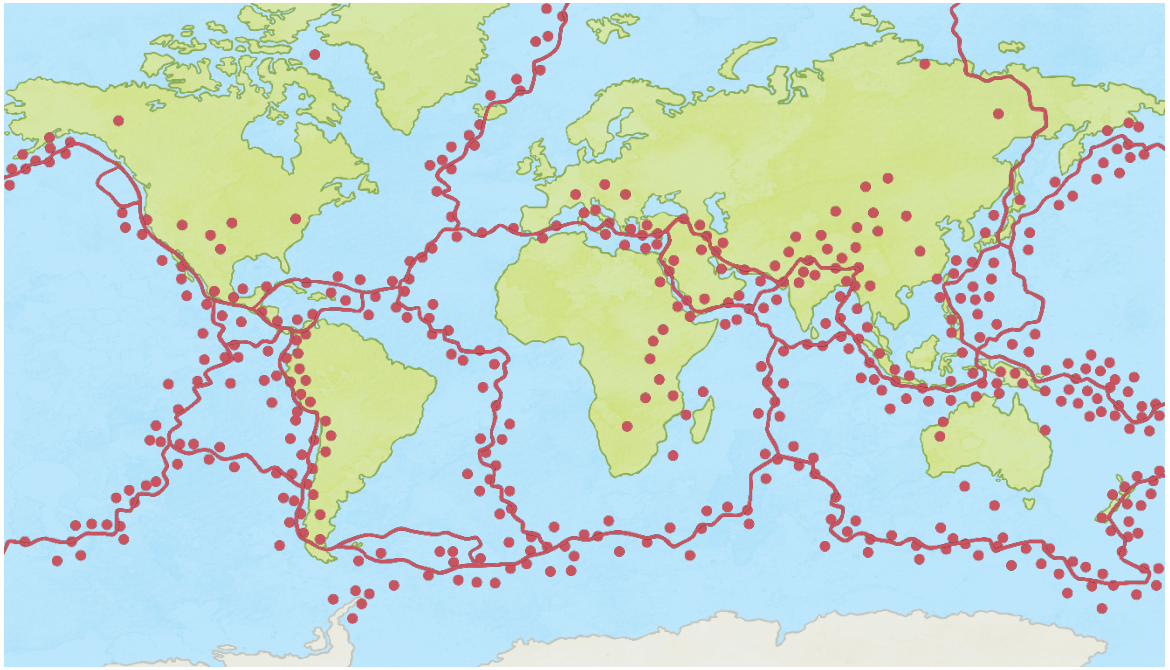
- Roads can be damaged.
- Cracks might appear in the ground.
- Buildings can be damaged or destroyed.

Where Do Earthquakes Occur?

Look at this map of the world. The lines show tectonic plate boundaries and the dots show earthquake hotspots.

What do you notice about where earthquakes happen?

Compare the earthquake map to the tectonic plates map. Are there any similarities?



What Should You Do?

Drop, Cover and Hold

Duck under a strong table or desk. Cover your head and neck with your arms. Stay away from windows.

Stay Calm

Keep calm. Make safe choices for yourself and those around you.

Stay Put

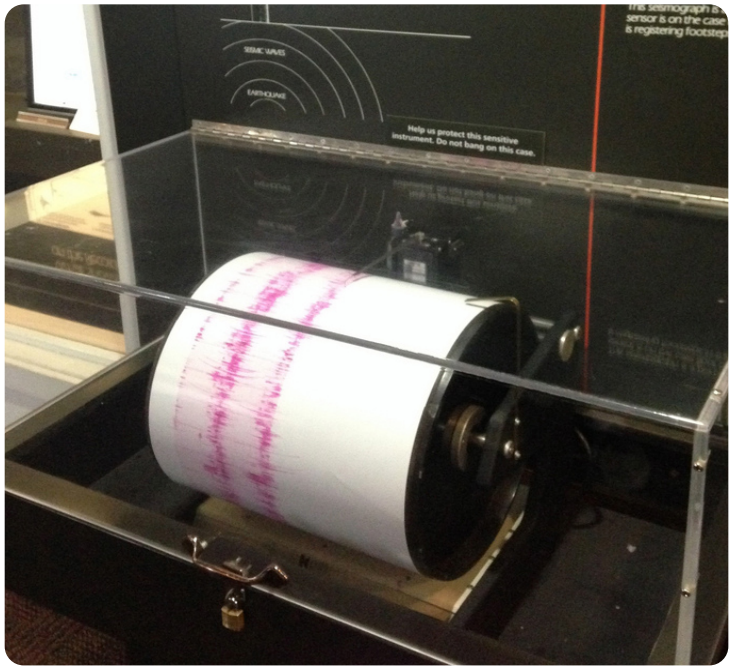
Shelter in place. Whether you're in a car, in bed, or in a public place. Do not try to run out of the building during strong shaking, wait until the shaking stops.

How Strong Is It?

There are two main ways to measure the power of an earthquake.

Machines called seismographs measure the power of an earthquake at its epicentre on a scale called the Richter scale.

Another measure is the Mercalli scale, and this is based on people's observations during an earthquake.



Comparing Earthquakes

Earthquakes are measured on a scale so that we can compare different earthquakes

Mercalli Intensity	Effect
I	Felt by no-one.
II	Felt by very few people. Hanging objects may swing.
III	Felt by many but they don't realise it is an earthquake.
IV	Felt indoors by most people. Vibrations similar to a lorry hitting a building.
V	Felt by nearly everyone. Sleeping people may be woken. Trees and telegraph poles sway.
VI	Felt by all. People run outside. Furniture moves. Slight damage to property.
VII	Felt by all. People run outside. Moderate damage to buildings
VIII	Specially designed buildings damaged, others collapse.
IX	All buildings damaged. Cracks appear in ground.
X	Many buildings destroyed. Ground is badly cracked.
XI	Almost all buildings destroyed. Wide cracks in the ground. Water, gas and electric out of action.
XII	Total destruction. Waves seen on the ground.

Would You Remember What to Do?

Drop, Cover and Hold

Duck under a strong table or desk. Cover your head and neck with your arms. Stay away from windows.

Stay Calm

Keep calm. Make safe choices for yourself and those around you.

Stay Put

Shelter in place. Whether you're in a car, in bed, or in a public place. Do not try to run out of the building during strong shaking, wait until the shaking stops.

Would You Remember What to Do?

- How did you feel when you heard the noise?
- Would you feel the same if you were in a real earthquake?
- How long did our earthquake last?

Activity:

Make a poster or information leaflet about earthquakes.

In your poster or leaflet you must include:

- ❑ What is an earthquake?
- ❑ What usually happens during an earthquake?
- ❑ Where do earthquakes most commonly occur?
- ❑ How are earthquakes measured?
- ❑ What should you do if there is an earthquake?

Challenge:

Can you imagine being in an earthquake? Imagine you have just been in an earthquake and write a diary entry explaining what it was like, what happened, how you felt and what you did.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