

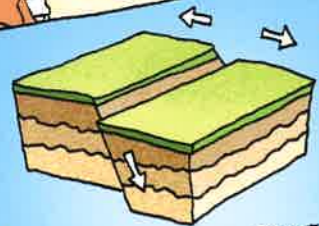
SHOCKING EARTHQUAKES

Picture the scene. One minute, you're strolling down the street, wondering what to have for tea. The next, the ground's shaking violently. It's an earth-shattering earthquake and it's got you quaking in your boots. But what on Earth is an earthquake? Find out in our seismic spotter's guide.

Seismic spotter's guide

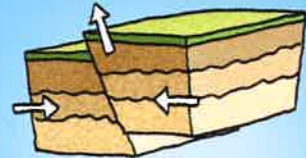
Shocking earthquakes happen because the Earth's crusty plates simply can't keep still. They push and shove each other, putting the rocks under terrible strain. Soon the stressed-out rocks reach breaking point, and

they jerk apart with a gigantic jolt, triggering an earthquake. The shakiest places on Earth lie along deep cracks where two pushy plates meet. These wobbly weak spots are called faults. But just whose fault is it? We sent Uncle Cliff to find out...



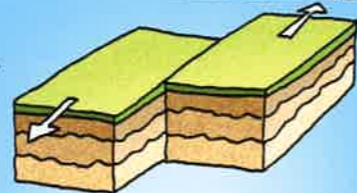
A) NORMAL FAULT

What to look out for: Two plates pulling apart so the rocks get horribly stretched.
Shocking sign: One plate sliding down under the other.



B) REVERSE FAULT

What to look out for: Two plates being pushed together, squashing the rocks in between.
Shocking sign: One plate sliding up over the other.



C) STRIKE-SLIP FAULT

What to look out for: Two plates sliding past each other.
Shocking sign: One plate slips one way; the other slips the other way.

WICKED WORLD FACTS

Seismic is the technical term for anything to do with earthquakes. It's ancient Greek for 'shaky'. Earthquake scientists are called seismologists (size-mol-lo-gists).

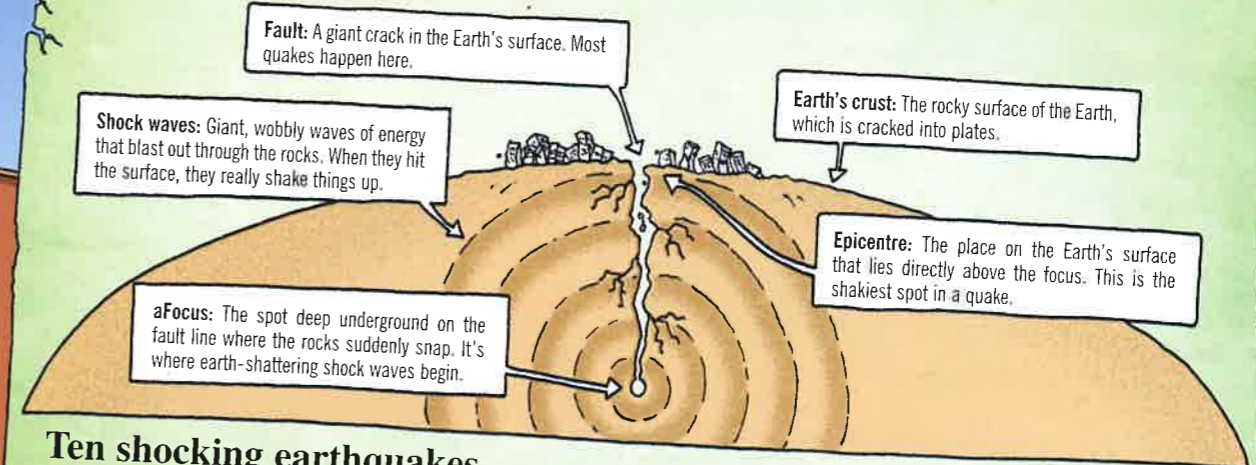
Most earthquakes last for less than a minute, but not the killer quake that hit Alaska in 1964. The Earth shook for four minutes – a lifetime in earthquake terms.

The quake that struck Lisbon, Portugal, in 1755 was so powerful that it sent water in lakes in Britain sloshing to and fro in whopping waves.

The 1,050-km-long San Andreas Fault streaks across California, USA. This is why cities like San Francisco, which sit on the crack, suffer thousands of tremors every year.

Earthquake X-ray

How does an earthquake happen? What sets off a shock? Here's Uncle Cliff again with an X-ray view of what happens when an earthquake strikes.



Ten shocking earthquakes

Each year, a shocking one million earthquakes shake the Earth. Luckily, most of them are too weak to be felt, but about ten a year turn out to be deadly. Here's a map of ten of the most colossal quakes of the twentieth century.



- 1 1964 ALASKA, USA (8.3-8.6)
- 2 1906 SAN FRANCISCO, USA (8.3)
- 3 1989 LOMA PRIETA, CALIFORNIA, USA (7.1)
- 4 1985 MEXICO CITY (8.1)
- 5 1970 CHIMBOTE, PERU (7.7)
- 6 1960 VALDIVIA, CHILE (8.7)
- 7 1988 SPITAK, ARMENIA (6.9)
- 8 1976 TANGSHAN, CHINA (8.3)
- 9 1995 KOBE, JAPAN (7.2)
- 10 1923 KANTO, JAPAN (8.3)

Earth-shattering fact

Seismologists use the Richter Scale to measure earthquakes. It grades quakes from 1 to 8, depending on how much energy is blasted out when the rocks break (this is called magnitude). Each step up the scale means a tenfold increase in energy. So a massive magnitude 8 quake is actually ten times as powerful as a magnitude 7. Awesome.