PLATE TECTONICS · PART 5 OF 9 · AGES 11–16

Earthquakes and Volcanoes by the Numbers

How big, how often and how fast: eight numbers that show just how restless Earth's surface really is.

Mw 9.5

the largest earthquake ever recorded, in Chile on 22 May 1960

It broke a fault about 1,600 km long. The bigger the fault area that slips, the bigger the earthquake.

500,000

detectable earthquakes happen around the world each year

About 100,000 are strong enough to feel, and about 100 cause damage.

~55 a day

earthquakes located by the USGS earthquake centre

That is about 20,000 a year, pinpointed by seismometers all over the world.

16

major earthquakes (magnitude 7 or more) in an average year

About 15 in the magnitude 7 range and one of magnitude 8 or more, based on records since about 1900.

~90%

of the world's earthquakes strike around the Pacific's Ring of Fire

That includes about 81% of the very largest earthquakes.

1,350

potentially active volcanoes on land worldwide

Not counting the long belts of volcanoes along the mid-ocean ridges on the sea floor.

15+ cm/yr

the fastest sea-floor spreading, at the East Pacific Rise

About six times faster than the Mid-Atlantic Ridge, which opens about 2.5 cm a year.

< 80 km

most earthquakes start shallower than this

The deepest earthquakes begin hundreds of kilometres down, but only where a plate is sinking.

The longest mountain range is underwater

The mid-ocean ridge system winds about 64,000 km through every ocean, making it the longest mountain range on Earth. It is a chain of divergent plate boundaries.

NEXT IN THE SERIES
6. From Continental Drift to Plate Tectonics: A Timeline