WHAT DO WE KNOW ABOUT EARTHQUAKES?

DESCRIPTION

Earthquakes are strong and sudden movements of the earth due to the sudden release of energy accumulated over time at a certain depth. The energy is released at points where rocks are less resistant and 'break', called **faults**.

The depth at which the release of energy occurs is called the **hypocenter** and can be located a few or many kilometres into the earth's crust. In the first case, the earthquake is called superficial, while in the second it is called deep. The hypocenter corresponds to a point on the earth's surface called the **epicenter**, at which the effects of the propagation of seismic waves will be greatest and will diminish as they move away from it. For example, **buildings** that are closer to the epicentre will suffer greater damage than those further away, especially if they are built of low-strength materials.

Seismic waves produced by tremors can be caused by volcanic activity, subsidence, or the collision or rubbing together of continental plates, i.e. gigantic masses of rock. In this case we speak of tectonic origin. The waves generated propagate and can be either sussultatory, from bottom to top, or undulatory, i.e. oscillating from side to side.

When the earthquake originates at sea or in the ocean, it is called a **tsunami** and can give rise to tidal waves, tsunamis, which can reach several metres in height and spill along the coast and into neighbouring inland areas, creating much damage.

The energy released and the damage caused by an earthquake are measured using two different **scales**, the Mercalli Scale and the Richther Scale.

The Mercalli Scale: a scale that measures the **intensity** of an earthquake according to the damage it produces. Values range from 1 to 12 **degrees**.

The Richther Scale: a logarithmic scale that measures the amount of energy released by an earthquake (the magnitude) through the **seismograph**. It has no maximum value, but as you go up from one degree to the next, the amount of energy released by the earthquake is 30 times greater than the previous degree.

It is very difficult to predict earthquakes, which is why it is important to know what to do in an emergency and not to be unprepared.