

Definitions and Concepts for WJEC (Wales) Physics GCSE

Topic 1.7: Seismic Waves

*Definitions in **bold** are for higher tier only*

Definitions marked by '' are for separate sciences only*

Seismic Waves: Waves that are produced by earthquakes.

S-Wave: Secondary waves are a type of transverse seismic wave. They cannot travel through fluids and travel slower than P-waves.

P-Waves: Primary waves are a type of longitudinal seismic wave. They can travel through all mediums and travel faster than S-waves.

Shadow Zone: The region of Earth in which S-waves are not detected. This is a consequence of them only being able to travel through solids, and has allowed a model of the Earth's different layers to be determined.

Surface Waves: Longitudinal waves that travel along a surface. They are the slowest form of seismic wave.

Seismic Records: Data detected by earthquake stations that record seismic waves produced by earthquakes.

Liquid Core: The liquid layer of the Earth formed of iron and nickel. Its size and existence is supported by the existence of the S-wave shadow zone.

Solid Mantle: The thick layer of rock found below the Earth's crust. It is formed of semi-molten rock.

Epicentre: The point vertically above the position of an earthquake's focus. It can be located using the seismic records from multiple earthquake stations.

Earthquake: The shaking of the ground as a result of the release of energy below the Earth's surface. It results in seismic waves being produced.

Lag Time: The time difference between P-waves and S-waves being detected following an Earthquake.

This work by [PMT Education](https://www.pmt.education) is licensed under [CC BY-NC-ND 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)

