

Types of Wave

Physics

Transverse against longitudinal, and what polarisation reveals.

Transverse

- Oscillation perpendicular to travel
- Can be polarised
- Light, all EM waves
- Water surface waves
- S-waves in earthquakes

Longitudinal

- Oscillation parallel to travel
- Cannot be polarised
- Sound
- Compressions and rarefactions
- P-waves in earthquakes

THE DIFFERENCE THAT MATTERS

Polarisation is possible only when there is a plane of oscillation to restrict. Longitudinal waves have none.

S-waves cannot travel through liquid. Their shadow zone is how the liquid outer core was discovered.