Earthquakes

Earthquake: displacement of rock caused by sudden release of stress. Generally caused when a section of plate gets “locked” whilst the rest of the boundary continues to move

Stress on any material can produce the following:

* Bending WITHOUT storing energy, aka **plastic behavior**
  + Happens in clay, dough and the asthenosphere
* Bending while storing energy, aka **elastic behavior**
  + Happens in the lithosphere
  + Bending beyond the “elastic limit” aka **fracture** results in an earthquake

**Fault**: a fracture with movement along it

**Seismic gap**: a section with no recent movement due to locked plates with built up stress and friction

**Fault Creep**: fault movement that is smooth and gradual without stress

**Focus**: The point of origin of the earthquake (location of rock breaking and stress release)

**Epicentre**: The point directly above the focus on the surface of the lithosphere

**Diagram:**