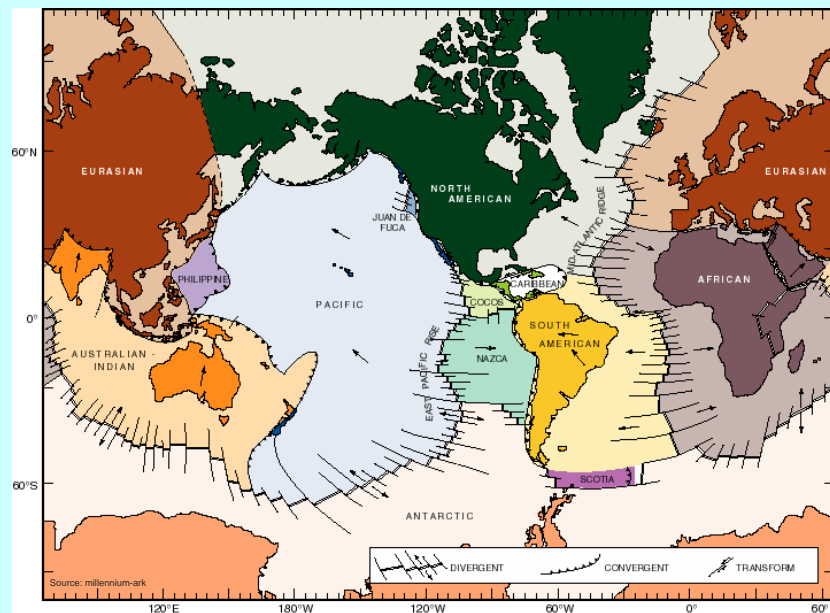
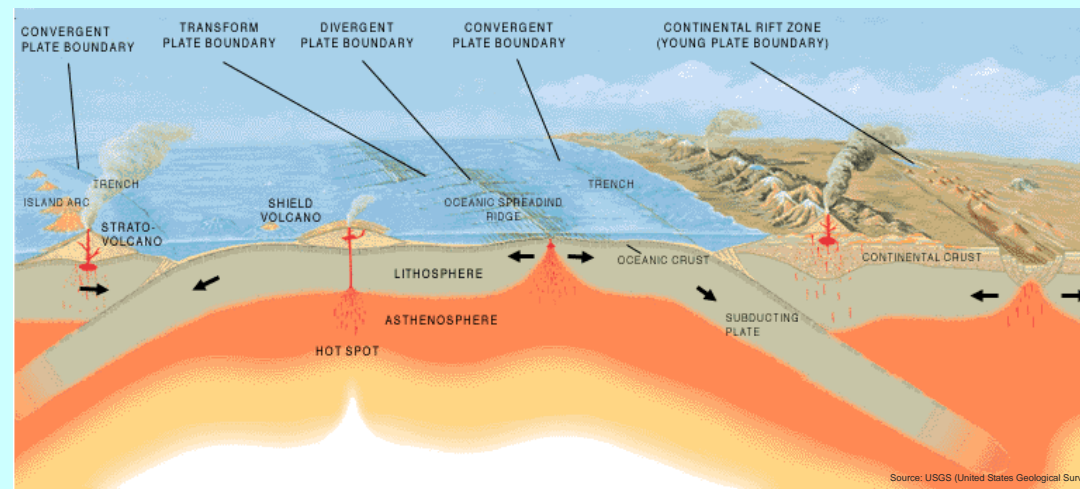


The Earth's Plates



The Earth's outer shell, the lithosphere, is comprised of nine large plates and a number of smaller plates.



The Earth's plates lie atop a layer of much hotter and softer rock called the asthenosphere. The uppermost part of the asthenosphere flows almost plastically allowing the surface plates to move.

Australia – Volcanoes

Volcanoes have been active in south-eastern Australia in the geologically recent past. The last eruption in the region was at Mount Schank, near Mount Gambier, about 5,400 years ago. The volcanic activity is attributed to movement of the Australian Plate over a "hot spot".



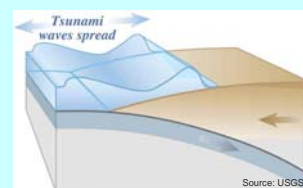
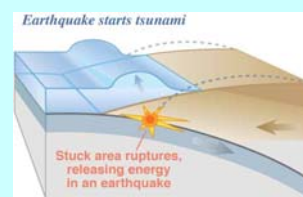
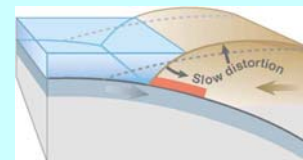
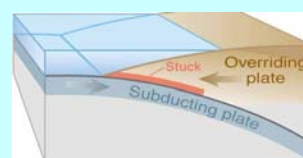
This photo shows the Harman Valley in south-western Victoria, along which lava from the distant Mt Napier volcano flowed and solidified to basalt.

Australia – Earthquakes and Tsunamis

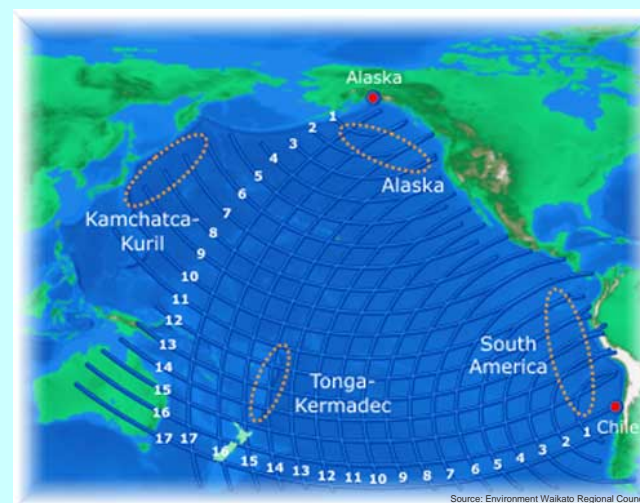
Australia lies entirely within the Australian Plate, where large earthquakes and volcanic activity is uncommon.



Earthquakes and volcanic eruptions are a feature of colliding or "convergent" plate boundaries. Convergent plate boundaries form the "Ring of Fire" that partly encircles the Pacific Basin.



Tsunamis can be generated by an earthquake at a convergent plate boundary.



Source areas and travel-times for tsunamis generated in the "Ring of Fire" that might threaten the east coast of Australia.



Map showing the epicentre of the subsea earthquake that caused the Boxing Day Tsunami in 2004.



Pu'u O'o is the currently active vent on Kilauea volcano in Hawaii. The volcanoes of Hawaii are also attributed to movement of the Earth's crust over a hot spot.