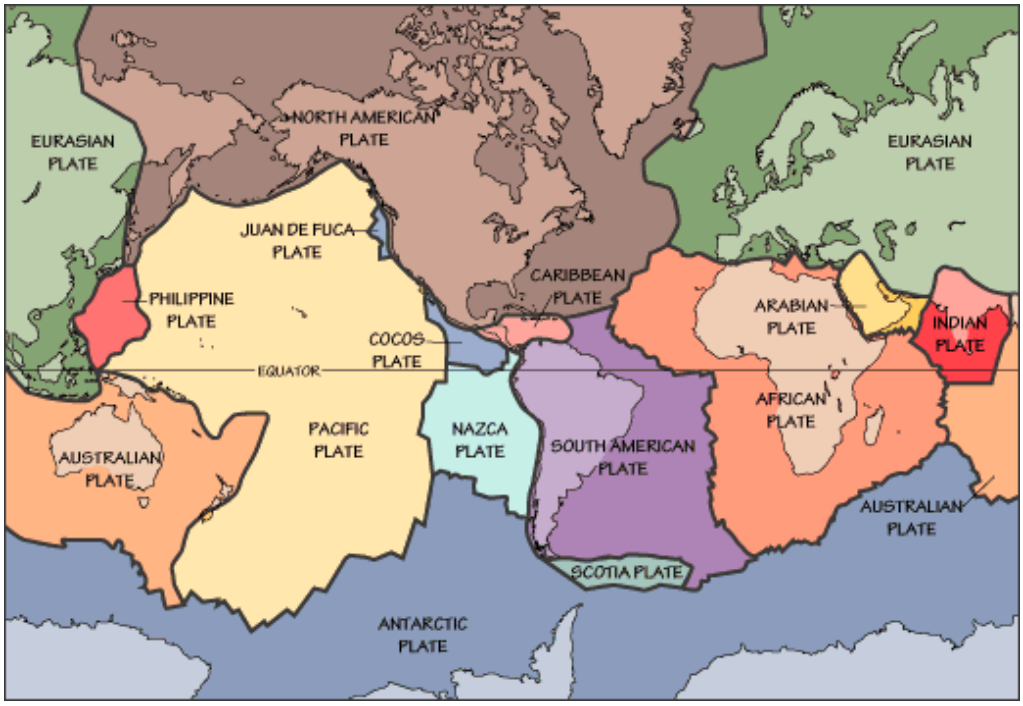
Teaching notes

The Earth's surface is made up of a dozen or so major plates and several minor plates.

The plates are constantly on the move with the fastest plate 'racing' along at 15 cm/year and the slowest crawling at less than 2.5 cm/year.



Map used courtesy of the US Geological Survey

The earth's major tectonic plates

Most of the plates are partly both continental and oceanic e.g. the North American plate, is both continental and oceanic. In comparison, the Pacific plate is almost completely oceanic.

There are three types of boundaries between the plates:

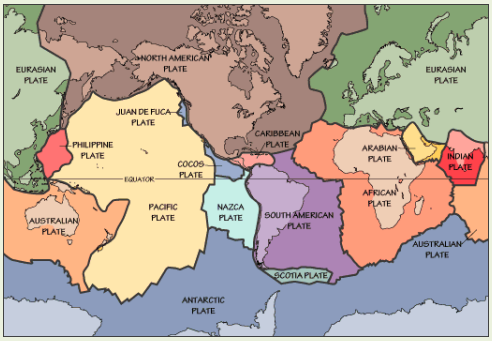
- Constructive or divergent boundaries -- where new crust is generated as the plates pull away from each other e.g. the Mid Atlantic Ridge.
- Destructive or convergent boundaries -- where crust is destroyed as one plate subducts under the other e.g. the Nazca plate is forced under the South American Plate.
- Conservative or transform boundaries -- where crust is neither produced nor destroyed as the plates slide horizontally past each other e.g. along the San Andreas Fault in California.

Some plate boundaries are not well defined and the effects of plate interaction in these broad zones are unclear.

Extension task:

Five plates are not labelled on the interactive map. Can the students identify these?

The Earth’s tectonic plates



Map courtesy of the US Geological Survey

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