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Magnetic stripes on the seafloor

The newly forming crust at a sea-floor spreading center acts like a tape recorder, recording the "flips" in the magnetic field as Normal and Reverse Polarity

Magnetic stripes on the seafloor

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Earthquake and Volcano Locations

Earthquakes and Volcanoes do not occur equally everywhere on the Earth: they are mostly along plate boundaries.

Earthquake and Volcano Locations

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Pattern of Sea-Floor Ages

The youngest ocean crust is at mid-ocean ridges. The oldest is far from the ridges

Pattern of Sea-Floor Ages

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Continental drift vs. modern theory of plate tectonics

Continental drift said that continents plow through fixed ocean basins. Plate tectonics says that ocean crust moves too - the whole surface of the earth is broken into plates which move around. **No Sea-Floor spreading in the original Continental Drift hypothesis.**

Continental drift vs. modern theory of plate tectonics

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Ocean crust vs Continental crust

Ocean crust is thinner, denser, and mostly younger. Continental Crust is thicker, less dense, and mostly older.

Ocean crust vs Continental crust

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Why does the Earth have layers?

Materials of **different densities** separate out in a process called **Differentiation**: denser materials sink to Earth's core and less dense materials rise the surface.

Why does the Earth have layers?

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Geographic North Pole vs. Geomagnetic North Pole

The Geographic North Pole is "True North" - the North pole of the Earth's spin axis. The Geomagnetic North pole is where a compass points.

Geographic North Pole vs. Geomagnetic North Pole

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