Topic: The Dynamic Crust

Aim: What unified theory explains plate motions?

1. What is the theory of plate tectonics?	Plate Tectonics = Continental Drift + Sea-Floor Spreading "PANGEA" (supercontinent when all continents were attached) broke up as a result of "floating" plates moving because of convection currents in the asthenosphere.
2. What events occur at or near zones of crustal activity?	Plate boundaries (ridges, trenches, transform boundaries) are the specific belts in the Earth's crust where most **earthquake, volcanoes, and mountain building** events occur. Coastal areas near plate boundaries are also susceptible to **tsunamis** – large waves created by undersea earthquakes.
3. What occurs at mantle hot spots?	Hot spots are places in the Earth's surface that magma rises up from the mantle. Example – the Hawaiian Islands As the crust moves over a hot spot, a chain of volcanic mountains form. If the mountains build up enough, they rise above sea level to make islands. The active volcano in the chain is the one directly over the hot spot.