Name _____ Date _____ Hour _____

Scott Resources LaserDisc:

Plate Tectonics: The Puzzle of the Continents

_____1. Alfred Wegener created the concepts that have become the basis for the modern theory of **(?)**.

_____2. Inspired by Wegener's hypothesis, plate tectonics has emerged as one of the greatest scientific theories of the **(?)** century.

_____3. Wegener was curious about reports of 250 million year-old ferns and reptiles that had been dug out of rocks in **(?)**, and Africa.

_____4. Other rocks contained signs of glaciers--a clue that Wegener interpreted as evidence for vast **(?)** in areas now covered by tropical forests.

_____5. He called this giant supercontinent Pangaea--meaning **(?)**

_____6. By proposing the concept of continental drift--he believed that the lighter, less dense crust of the continents floated like blocks of ice on the more dense, stationary crust of the **(?)**

_____7. From matching fossils and sedimentary rocks, he theorized the existence of **(?)**.

_____8. By 1950 oceanographers had begun using echo sounding and sonar to map the details of the **(?)**.

_____9. Scientists named them mid-ocean ridges--topographic features which encircle the **(?)** for a distance of 74,000 kilometers.

_____10. In other places, they found steep volcanic cones called seamounts and deep arc-shaped trenches that border the edges of **(?)** and island chains.

_____11. Geophysicists had new evidence--evidence of patterns that were marked by the locations of thousands of **(?)** and volcanoes.

_____12. By the late 1960's, it was clear that enough evidence had been gathered to **(?)** Wegener's theory of continental drift.

_____13. The Earth's outer crust, or **(?)**, is divided into nine major tectonic plates that cover the Earth like pieces of a jigsaw puzzle.

_____14. Tectonic Plates, like pieces of cooling lava, are **(?)** but constantly moving slabs of crust.

_____15. The first type is called a **(?)** boundary and is found along mid-ocean ridges where plates are actively separating.

_____16. This process is called **(?)** because the crust of the ocean is literally spreading apart.

_____17. Beneath the rigid lithosphere lies a weak, **(?)** layer called the asthenosphere.