Name _____ Date _____ Class _____

Note-taking Worksheet

Plate Tectonics

Section 1 Continental Drift

A. The **continental drift** hypothesis—continents have moved slowly to their current locations.

1. All continents were once connected as one large landmass now called _____.
2. The land mass broke apart, and the _____ drifted to their present positions.
3. Evidence for continental drift
   a. _____ fit of the continents
   b. Similar _____ have been found on different continents.
   c. Remains of warm-weather plants in _____ areas and glacial deposits in _____areas suggest that continents have moved.
   d. Similar _____ structures are found on different continents.

B. At first, continental drift was not accepted because no one could explain _____ or _____continents had moved.

Section 2 Seafloor Spreading

A. Using _____ waves, scientists discovered a system of underwater mountain ranges called the mid-ocean ridges in many oceans.

B. In the 1960s, Harry Hess suggested the theory of _____ to explain the ridges.

1. Hot, less dense material below Earth's _____ rises upward to the surface at the mid-ocean ridges.
2. Then, it flows sideways, carrying the _____ away from the ridge.
3. As the seafloor spreads apart, _____ moves up and flows from the cracks, cools, and forms new seafloor.

C. Evidence for seafloor spreading

1. _____ rocks are located at mid-ocean ridges.
2. Reversals of Earth's _____ field are recorded by rocks in strips parallel to ridges.

Meeting Individual Needs

Note-taking Worksheet (continued)

Section 3 Theory of Plate Tectonics

A. Plate movements

1. Earth's _____ and upper mantle are broken into sections.
2. The sections, called _____, move on a plasticlike layer of the mantle.
3. The plates and upper mantle form the _____.
4. The plasticlike layer below the lithosphere is called the _____.

B. Plate boundaries

1. Plates moving _____—divergent boundaries
2. Plates moving _____—convergent boundaries
   a. Denser plates sink under less _____ plates.
   b. Newly formed hot _____ forced upward forms volcanic mountains.
3. Plates collide
   a. Plates crumple up to form _____ ranges.
   b. _____ are common.
4. Plates slide past—called _____ boundaries; sudden movement can cause earthquakes

C. Convection inside Earth—the cycle of heating, rising, cooling, and sinking of material inside Earth is thought to be the _____ behind plate tectonics.

D. Features caused by plate tectonics

1. Faults and _____ valleys
2. Mountains and _____
3. Strike-slip faults—cause of _____

E. Testing for plate tectonics—scientists can measure _____ as little as 1 cm per year.