

To complete this worksheet, see the instructions in the textbook (Chapter 5 Investigation).

Table 1. Interpretation of Features, Tectonic Settings, and Causes of Melting

For each site on figure 5.15.a1 in the Chapter 5 Investigation in the textbook (also page 3 of this worksheet), identify the following:

- the type of plate boundary or other setting. Possible choices include: (1) oceanic divergent, (2) continental rift, (3) ocean-ocean convergent, (4) ocean-continent convergent, (5) continental collision, (6) hot spot in an ocean, or (7) hot spot in a continent. All of these settings are not present in this area;
- the most likely cause of melting. The options are (1) decompression melting either beneath a mid-ocean ridge or near a rising mantle plume.

mid-ocean ridge

Essay

Essay answers are on the next page. Essay answers are on the next page.

13. Describe the convection currents that occur inside Earth.

14. How are magnetic stripes near mid-ocean ridges evidence for sea-floor spreading?

15. According to the theory of plate tectonics, explain what causes changes in Earth's surface.

16. How are the Andes Mountains in South America and the Sierra Madre Occidental in Mexico related to plate tectonics? Cite evidence from a landform and fossil to support your answer.

17. The Eurasian and North American plates are a common border in the Atlantic Ocean. Name this border and explain what plate activity occurs there.

18. Describe how the shapes of present-day continents support the theory of continental drift.

19. Compare and contrast the outer core and the inner core.