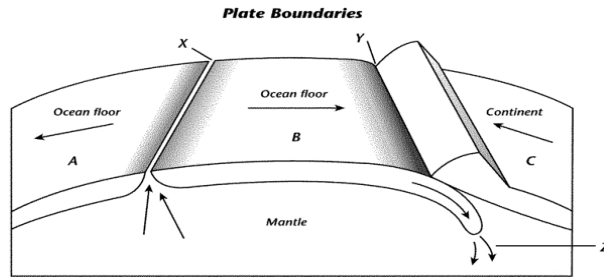


Plate Tectonics

Use the diagram to answer each question.



Which type of plate boundary occurs at X?

divergent

What feature occurs at Y, and how does it form?

Trench, two plates coming together

What is happening at Z?

plate/crust melting

Identify the three plates in the diagram and name the materials that make up each plate.

ocean=basalt, continental=granite

Which type of plate boundary occurs at Y?

convergent

What feature occurs at X and how does it form?

mid-ocean ridge

Essay

Essay answers are on the next page.

- Describe the convection currents that occur inside Earth.
- How are magnetic stripes near mid-ocean ridges evidence for sea-floor spreading?
- According to the theory of plate tectonics, explain what causes changes in Earth's surface.
- Were Africa and South America ever joined? Cite evidence from a landform and fossil to support your answer.
- The Eurasian and North American plates share a common border in the Atlantic Ocean. Name this border and explain what plate activity occurs there.
- Describe how the shapes of present-day continents support the theory of continental drift.
- Compare and contrast the outer core and the inner core.