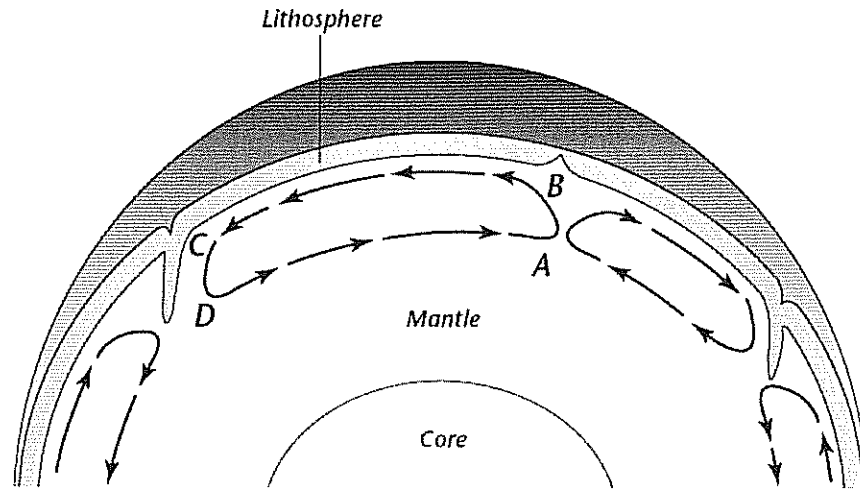


Plate Tectonics ▪ Enrich

## What's Happening During Convection?

The figure below shows a convection cell in Earth's mantle. A **convection cell** is one complete loop of a convection current. Use the figure to answer the questions that follow.



Answer the following questions on a separate sheet of paper.

1. Where does the heat come from that drives this convection current in the mantle?
2. Where is the temperature of the mantle material greater, at point A or point B? Explain why.
3. Where is the density of the material greater, at point B or point C? Explain why.
4. What causes the convection cell to turn to the left at point B?
5. What happens to the temperature and density of the material between points B and C?
6. What force causes the convection cell to turn down at point C?
7. What happens to the temperature and density of the material between points D and A?
8. What causes the convection cell to turn up at point A?
9. How do you think this convection cell might affect the crust material above it?