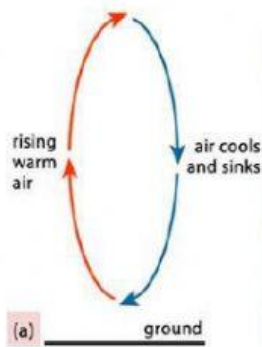


3.16 Earth's Mantle



In a convection cell, warm material rises and cool material sinks. In mantle convection, the heat source is the core.

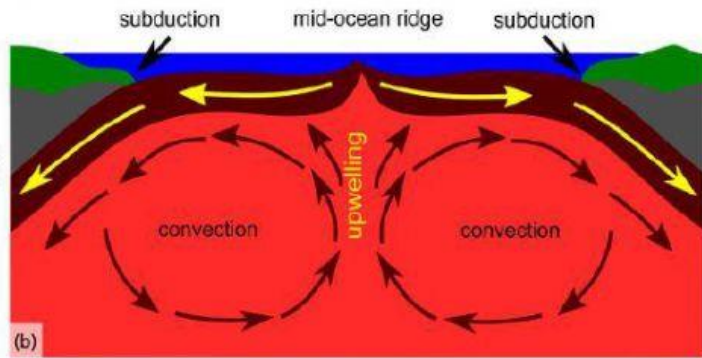
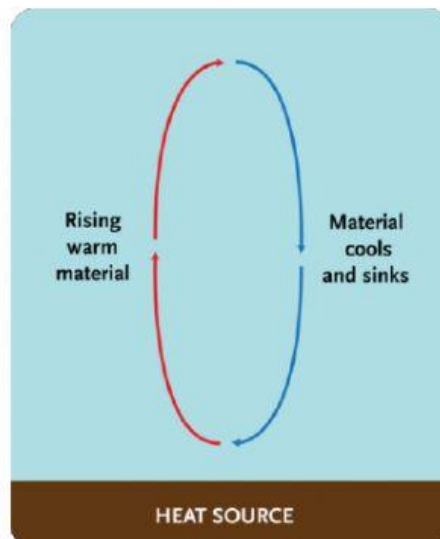
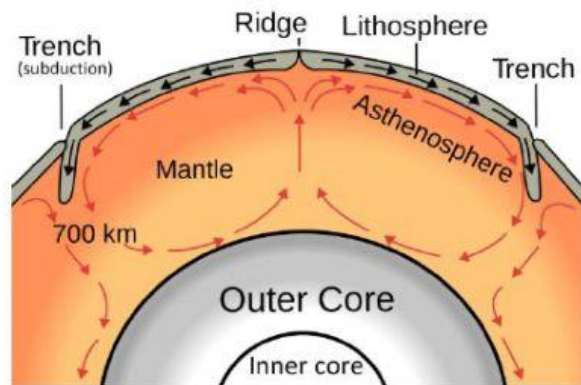
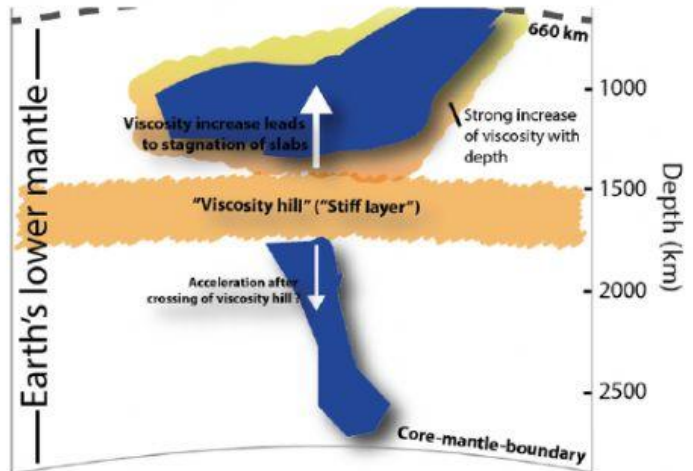
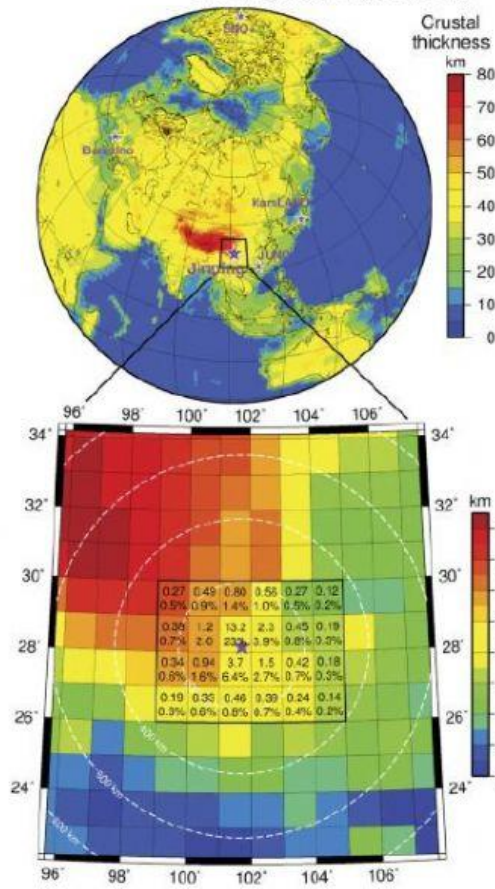


Diagram of convection within Earth's mantle.



1. How do scientists know what the mantle is made of?

2. What is conduction?

3. How does convection work in the mantle?

1. In which ocean did researchers try to drill into the mantle in 1961? In 2016?

2. How much of Earth is made of mantle?

3. Where in the ocean would you have the best chance of drilling to the mantle?

4. Why did the researchers stop drilling in 1961?

5. What noteworthy sample did researchers bring to the surface in 2016?

6. What happens at the Moho discontinuity?

7. What are extremophiles? Where do they live?

8. How deep did the drilling go in 2016? How deep do they hope to get?

9. What do scientists hope to find? Why would that sort of thing be found inside Earth