

Title: Understanding the Earth's Mantle and Core

1. Math/Analyzing Data questions on the next page.
2. Copy the picture and words on the 3rd page, under the title: Earth's Magnetic Field
 - A. Answer in a complete sentence: What do scientists think creates Earth's magnetic field?
 - B. Copy the notes:
 - a magnetic field surrounds the planet in all directions
 - theory: movement of the liquid iron outer core creates the magnetic field
 - field protects the earth from harmful solar flare radiation
3. Copy the convection currents picture on the 4th page, under the title: Convections Currents in the Asthenosphere
4. Copy the notes:
 - **Convection current in the mantle** – heated rock rises and the denser cooler rock sinks).

Math

Analyzing Data

Temperature Inside Earth

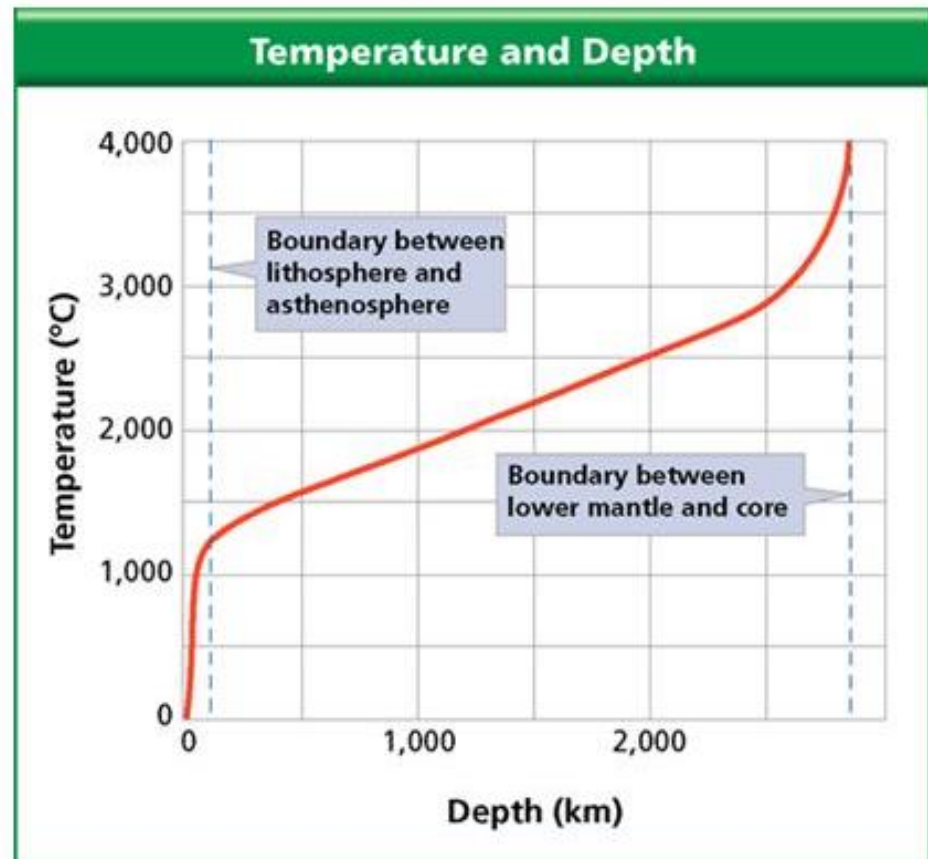
The graph shows how temperatures change between Earth's surface and the bottom of the mantle. On this graph, the temperature at Earth's surface is 0°C. Study the graph carefully and then answer the questions.

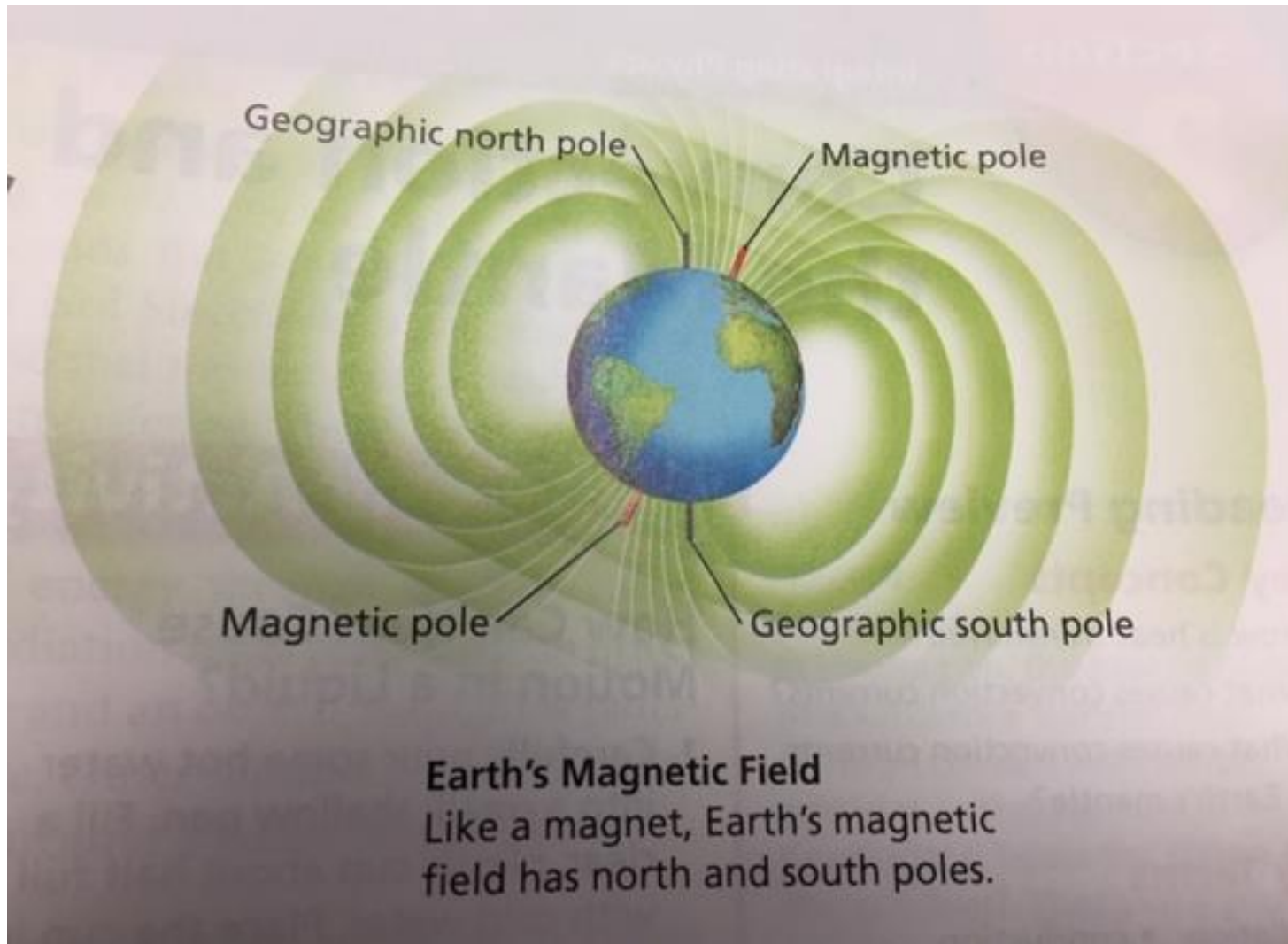
- 1. Reading Graphs** As you move from left to right on the x-axis, how does depth inside Earth change?
- 2. Estimating** What is the temperature at the boundary between the lithosphere and the asthenosphere?
- 3. Estimating** What is the temperature at the boundary between the lower mantle and the core?
- 4. Interpreting Data** How does temperature change with depth in Earth's interior?

Math

Analyzing Data

Temperature





Mantle Convection

Heat from the core and the mantle itself causes convection currents in the mantle.

Describe the hot, convecting Mantle by placing the following words in the boxes
For points A and B.

