

Research Activities

Chapter: Earth as a System

Use the items below as a starting point for independent research projects.

1. The temperature of Earth's crust increases approximately 1°C for every 30 m of depth. If this same rate of increase in temperature continued all the way to the center of Earth, what would the temperature be
 - a. at the Mohorovicic discontinuity?
 - b. midway through the mantle?
 - c. at the outer edge of the outer core?
 - d. at the boundary between the outer core and inner core?
 - e. at the center of Earth?

Write down your responses to the preceding questions, and then use what you know about Earth's interior to explain why this method of approximation is inaccurate in some cases. Be sure to provide specific examples in your explanation.

2. Using household materials, make a three-dimensional model of an ecosystem. Label the various living and nonliving components of your ecosystem. Show the exhibit to your class, and explain how the various components interact.