

Use all your observational skills to draw a cross-section of the Earth's crust. Label the layers by digging down into the ground. In your notes, describe the characteristics of each layer.

The Earth's crust has several layers. The top layer is the crust, which is the thin outermost layer. Below the crust is the mantle, which is the layer of the Earth's interior. The bottom layer is the core, which is the innermost layer. The core is divided into the inner core and the outer core. The inner core is solid, while the outer core is liquid. The mantle is divided into the upper mantle and the lower mantle. The upper mantle is divided into the crust and the upper mantle proper. The lower mantle is divided into the lower mantle proper and the core-mantle boundary. The core-mantle boundary is the boundary between the mantle and the core. The core-mantle boundary is located at a depth of about 2,900 kilometers. The core-mantle boundary is also known as the Gutenberg discontinuity. The core-mantle boundary is named after the German physicist Beno Gutenberg, who discovered it in 1926.

Fig. 1.1 Earth's crust and upper mantle. (Source: Adapted from *Earth Science*, 10th ed., Pearson Education, Inc., 2004.)