

THINKING CRITICALLY**● Ordering Soils**

North American soil can have many different characteristics. For example, the color of soil can range from yellow and red to dark brown and black. In your text book, you learned about three types of soil—pedocal, pedalfer, and laterite. These three main types of North American soil can be further classified into the following 10 orders, or groups.

- Soils that develop under forests and grasslands in humid climates are classified as *alfisols*.
- *Aridosols* are soils formed in dry regions. They contain only a small amount of organic matter.
- *Entisols* are soils that show little development. Only a small amount of weathering has occurred. The soil resembles its parent material.
- Soils that show slightly more development than entisols are classified as *inceptisols*.
- Organic soils are classified as *histosols*. These soils form in water-saturated environments such as swamps and bogs.
- Soils that develop in the prairie regions are classified as *mollisols*. These soils have a topsoil layer that is rich in organic material.
- *Oxysols* are soils that are highly chemically weathered. They are generally found in the tropic regions and have a reddish color.
- *Spodosols* have a large amount of iron, aluminum, and organic matter in the B horizon. These soils are usually found in humid climates.
- Moist, well-developed, acid soils are classified as *ultisols*. These soils occur mostly in warm, humid climates.
- *Vertisols* are soils that form in warm, arid climates. During dry seasons, vertisols develop wide, deep cracks.

Your Turn to Think

1. What are the two main characteristics that determine the ten soil orders?
2. Which soil order would you most likely find in the following areas?
 - a. Death Valley
 - b. Florida Everglades
 - c. Central Kansas
 - d. Your city or town
3. Are soils classified as ultisols likely to experience much leaching? Explain your answer.
4. Which soil order is a likely source of coal? Explain your answer.
5. The vast majority of soil in Alaska belongs to the entisol and inceptisol orders. Explain why this is so.