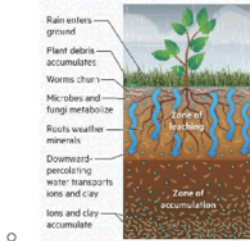
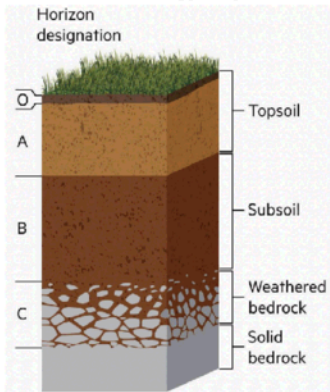


- Larger spaces of air promote aeration
- Smaller particles like clay pack together + influence infiltration + nutrient retention
- Mixtures of various particle sizes, types of parent material, soil organisms, and organic matter all determine a soil's structure and texture



- Soil horizons: living (biotic) and nonliving (abiotic) factors in soil creating layers
- Soil profile: collection of soil horizons at a location, is a cutaway view of soil and is composed of up to four major horizons: O, A, B, and C
 - Profiles are typically less than 3 feet deep



- Topsoil: uppermost 2–6 inches of soil, contains O and A horizons, complex mixture of materials that include organic matter derived from living things
- B horizon is subsoil composed of mineral matter
 - Clay minerals, iron, aluminum
- C horizon is composed of weathered parent material + solid (bedrock)

What Makes Soil Alive?

- Soil rich w/ life, supporting animals, microorganisms, insects, and worms
- Earthworms pull material from surface as they burrow up and down through soil + digest/mix soil and organic material → rich excrement known as castings

Soil Organic Matter: