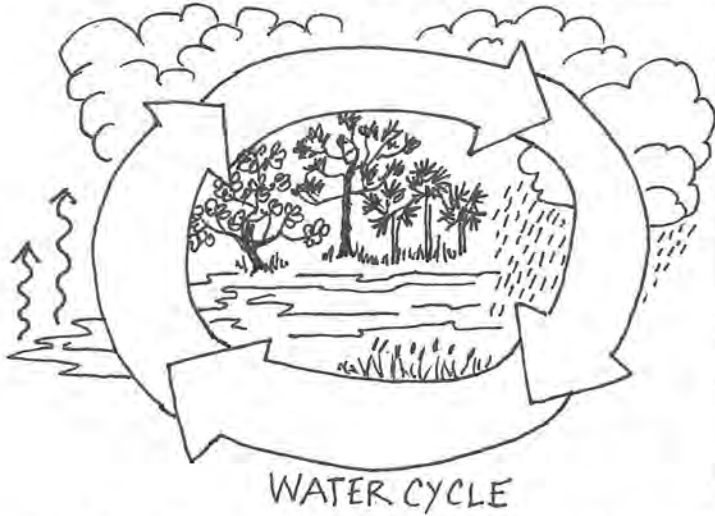


Water Cycle & Soil Ecology

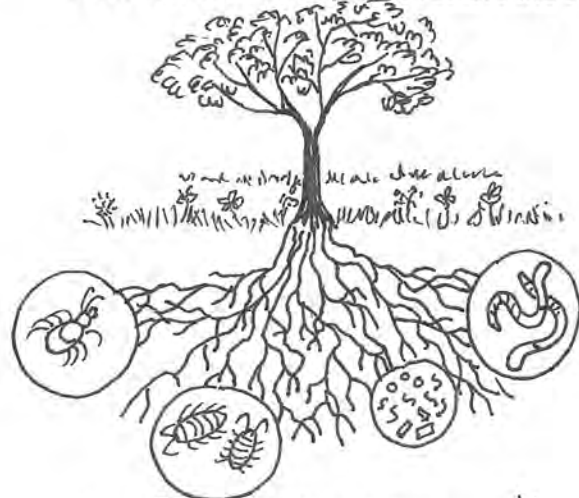
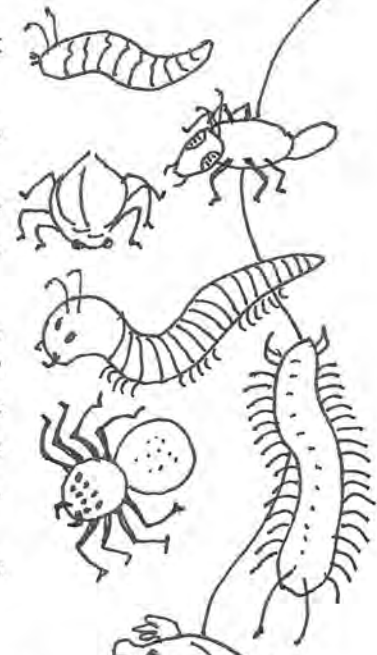


Activity: Write the highlighted word describing a water cycle action in the correct arrow

- Precipitation** is rain, sheet, hail or snow
- Collection** is when water fills ponds, canals, and rivers that flow into the ocean
- Evaporation** is when heat from the sun heats water like a boiling pot that steams or turns the liquid into water vapor in the air
- Condensation** is when water vapor cools high in the sky, forming clouds

Soil Ecology is the study of how things in the soil act together. Soil is a cycle that continues in a circle like the Water Cycle.

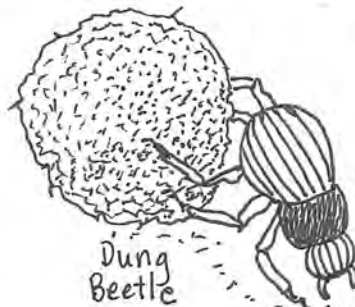
- The ground is a place to live for creatures like worms, beetles, ants, millipedes, spiders, moles and microbes (tiny living things like bacteria).
- Plant roots take nutrients from the soil for energy. Leaves take carbon dioxide from the air and release oxygen. Roots keep soil in place and stop storm runoff.
- Soil stores carbon dioxide and filters water.
- Plant life dies and becomes loam. Loam is a loose mixture of dead leaves, stems and roots of plants that collect on top of the hard packed sand and clay of earth. When it rains, the water seeps down and mixes up these materials into a compost that filters into the dirt and creates rich soil. We can create more soil by mixing dead yard material with food wastes to make compost. This is cheaper than buying fertilizer and keeps the water cycle cleaner.
- Seeds, nuts, spores and bulbs germinate with new roots, stems and leaves from rich soil. New plants restart the soil cycle & the circle goes around again.



SOIL ECOLOGY
Soil contains many kinds of creatures, Soil has diversity!

Dung Beetle Story Roll with our Soil Hero Rainbow Scarab

He pushes poo into a ball with his hind legs and rolls it into his cave standing on his front legs. Eggs are deposited inside. The ball supplies nutrients for the eggs that mature into grubs. He cleans the yard, then he breaks up packed dirt, aerating the soil. Seeds that birds drop will thrive in the leftover ball nutrients within the cave of this beetle.



...but the early worm gets eaten!