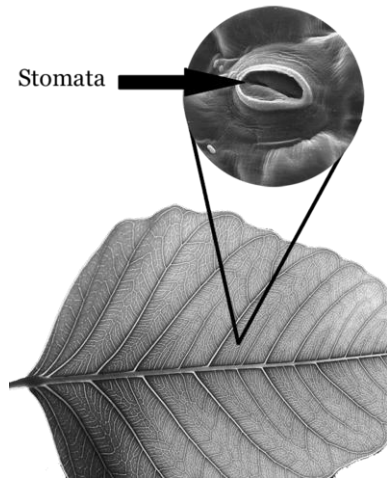


Have you ever been walking on a hot day in a field or village and then entered a forest or heavily shaded area? It feels much cooler and even damp!! Why do you think this happens? Trees are often considered natural sponges, which regulate the earth's water supply by holding water. Forest waste matter, such as decomposing leaves or humus, slows down surface evaporation from the soil. Rain first falls on leaves and plants rather than directly hitting the soil, decreasing the rate of water and soil erosion.



Forests help regulate the water in the air through a process called transpiration. They absorb thousands of gallons of water into their roots. The water is carried up through the trunk and into the branches and leaves for food. Excess water is then released through the leaves back into the air.



When the air becomes saturated with enough moisture, clouds form and, if enough moisture is *transpired* into the air, rain will fall. This begins the water cycle all over again.

To see the tiny holes, or stomata, through which leaves transpire water, you must look under a microscope. However, if you wrap a broadleaf plant in clear plastic and place it in the sunlight, in a few hours you will see moisture or condensation clinging to the inside of the bag. The leaves gave off this moisture much like your skin excretes moisture when you perspire.

Vocabulary

humus

excess

evaporation

saturated

decreasing

stomata

soil erosion

condensation

transpiration

excretes

