



## THE INTERCONNECTEDNESS OF ALL THINGS



### LEAVES OF AUTUMN

We learned back in elementary school the “why” of the awesome show of autumn’s deciduous trees. We learned about photosynthesis, the process in which plants combine water, carbon dioxide and sunlight to produce food. We learned about chlorophyll and carotene and xanthophyll - the molecules which allow a plant to absorb light of different wavelengths of light. We learned that in autumn the food-making process goes on hiatus, the chlorophyll breaks down, the green disappears and the yellow and orange of carotene and xanthophyll are unmasked. We also found out that the red leaves are a result of glucose being trapped in the leaves.

But here is the fun part. Biologists talk adaptation – how the traits of living things have developed in a way that contribute to the survival or reproduction of the organism. For instance, the monarch butterfly is brightly colored to warn potential predators of the butterfly’s toxicity, and the tawny color of the lion allows it to blend with its African grassland. In his book, Hollows, Peepers, and Highlanders, biologist George Constantz says that “the colors of tree leaves in the autumn appear to be adaptively neutral – they convey neither advantages nor disadvantages to the reproductive success of the individual tree”. The tree does not need its leaves to be beautiful in the fall. It’s a *freebie!* Take time this month to go out and enjoy God’s gift!



Many people don't realize that the way they manage their own lawns affects the health of vital habitats for plants and animals and the quality of the water we use for drinking, swimming, and fishing.

All land is in a watershed: water drains from every yard into some water body.

Autumn is a critical time to protect our water quality. Every fall, property owners repeat the cycle of managing fallen leaves. What you do with these leaves can benefit or harm the environment of your lawn as well as the watershed.

The best thing to do with leaves is to mow them frequently with a mulching mower. The nutrients in the leaves will be released back into the ground and nourish the trees. The same is true for your grass clippings. If you cannot mulch all of the leaves into your lawn, collect and compost them to improve your garden soil. Compost is a wonderful resource for increasing the moisture-holding capacity and fertility of soils and encouraging beneficial organisms such as earthworms.

Autumn is the perfect time to begin a project that will also promote a bountiful garden next year. Harvest time is a great opportunity to start a compost pile because decaying vines, vegetables, leaves and grass clippings contain excellent nutrients that break down over time to recharge soil with nitrogen for spring planting.