



Photosynthesis occurs when a tree uses the sunlight and chlorophyll to convert carbon dioxide and water into glucose. The tree needs to eat this glucose to grow, and we know it is eating because the leaves are turning green. It isn't the glucose which turns the leaves green, however, it is the chlorophyll.

Trees grow the most in the spring and summer, where there is a lot of sunshine every day. When fall begins, the days grow shorter and there is less sun. This alerts the tree to begin getting ready for winter. The leaves begin to turn red, orange, gold, and brown, because with less sunlight and water for photosynthesis, the green chlorophyll begins to disappear.

The leaf colors we see in the autumn have been in the leaves all along, but with so much green chlorophyll, we can't see them until the chlorophyll is gone. As winter begins to approach, the tree uses the food it has stored during the spring and summer, and goes into a rest period. Actually, the tree hibernates' (just like bears do) The only difference is that bears lie down in a cave to sleep, and trees lose all their leaves and stand up to sleep.



