

Why Do Leaves Change Color in the Fall?



The **GREEN** color in leaves is from chlorophyll. Chlorophyll is needed for “photosynthesis” (this is when plants take water and carbon dioxide, and use sunlight to turn them into glucose, which is food for the tree).



In the fall, the days get shorter and dryer and there is not enough light or water for photosynthesis to occur. The chlorophyll eventually disappears, revealing the **YELLOW** and **ORANGE** of autumn leaves which have been there all along.

In some trees, like maples, the leaves turn bright **RED** and **PURPLE**. These colors are made when glucose is trapped in the leaves while photosynthesis shuts down in the fall. Warm days and cold nights cause brighter reds and purples.



It is the combination of these and other processes that make the **WIDE RANGE OF COLORS** we enjoy in the fall.



Color this **YELLOW**



Yellow Poplar Leaf

Color this **RED**



Red Oak Leaf

Color this **PURPLE**



Sweetgum Leaf

Color this **ORANGE**



Sugar Maple Leaf

Color these leaves the different fall colors