

Photosynthesis

- _____ – the conversion (changing) of _____ into _____.
- _____ are the only _____ that can capture energy in _____ and use it to synthesize food _____.
- _____ are the main _____ organ.
- Less than _____ of all _____ striking a leaf is _____ and used in _____.
- Only _____ absorbed in the regions of violet, blue, orange, and red _____ can be used in _____.
- _____ wavelengths are _____.

Chloroplasts

- Plant cell _____ composed of _____, disc shaped structures called _____.
- Each layer is called a _____.
- This structure _____ and absorbs _____.
- _____, the green pigment is found within the _____.
- _____ a and b are most _____ and most _____ in green plants.
- _____ land plants absorb _____ (_____) through openings in the lower _____ called _____ which are regulated by _____.

General Equation for Photosynthesis

- Major Steps in Photosynthesis

- _____ Reaction

- _____ enters the cell and is taken up by the _____
 - This raises the level of _____ and detaches them from the _____
- This _____ is then used to synthesize _____
 - This process is called _____
 - _____ energy has been converted into _____ energy

- _____ Reaction

- The newly created _____ energy (_____) is used to form _____ (sugars)

The reverse process of _____

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- _____ occurs in _____
 - _____ occurs in _____, _____, and _____
 - _____ occurs on _____ by _____

Things to remember...

- In photosynthesis, _____ energy is used to build _____ compounds from _____, while splitting water into hydrogen and oxygen
- The _____ of the leaf are equipped with conductive tissues through which _____ is supplied to the photosynthetic cells (_____), or through which manufactured _____ can be moved to other parts of the plant (_____).
- Each year, only about 1/2000 (or _____) of the total available energy received from the _____ is captured by plants through _____.