

## Notes - Photosynthesis

What does a plant need to live?

Water	<u>Sunlight</u>	Carbon Dioxide
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What does a plant make with these substances?

Oxygen	<u>Glucose</u> (energy)
Used by... - Plants and animals	Used by... plants and animals use glucose for energy

Plants convert light energy into chemical energy in a metabolic process called photosynthesis.

- Photosynthesis takes place in plant cells in Chloroplast.
- Chloroplasts are *filled* with the molecule Chlorophyll, which absorbs light energy.

Certain types of bacteria and Protist are also able to perform photosynthesis, but instead of using chlorophyll they use other Pigments to store light energy.

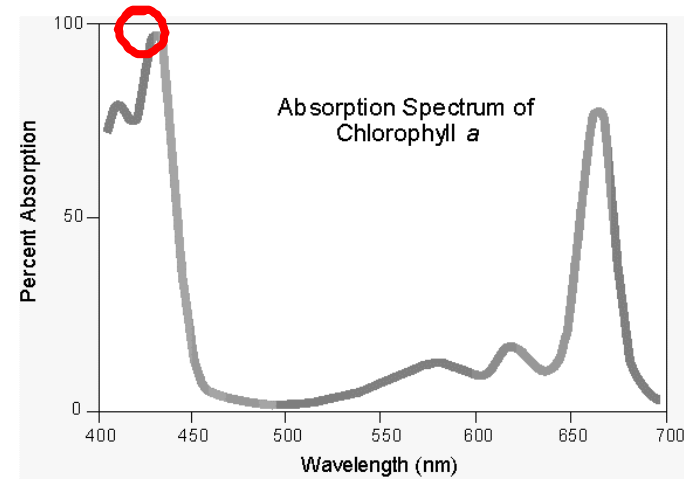
According to the graph, chlorophyll absorbs which wavelengths of light best?

Blue-Violet  
400-450ish

Orange-Red  
650-700ish

Which wavelengths of light are not absorbed, but reflected?

Green  
450-600ish



Summarize the process of photosynthesis using a chemical equation.

Water + Carbon Dioxide  $\xrightarrow{\text{light}}$  Oxygen + Glucose (sugar)



Reactants

Products

Why is photosynthesis important for plants?

Helps them get  
energy

Why is photosynthesis important for animals?

Helps them get energy

What is one additional reason why photosynthesis important for most life on earth?

It produces oxygen for living thing