

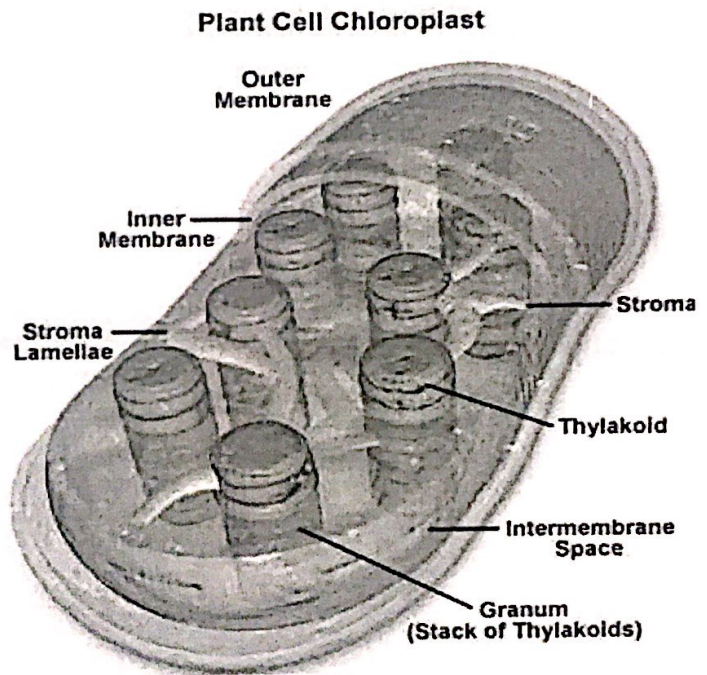
Photosynthesis Worksheet

Part A:

Fill in the blanks with the appropriate word.

Word Bank				
Chlorophyll	glucose	organelle	photosynthesis	sunlight
pigment	sugar	chloroplast	$C_6H_{12}O_6$	water

_____ is a process in which sunlight energy is used to make glucose. The site of photosynthesis is in the _____
– a organelle found in the leaves of green plants. The main functions of chloroplasts are to produce food (glucose) during photosynthesis, and to store food energy. Chloroplasts contain the pigment, _____. Chlorophyll absorbs most of the colors in the color spectrum, and reflects only green and yellow wavelengths of light. This is why we see leaves as green or yellow – because these colors are reflected into our eyes.



Answer the following questions below:

1. What is photosynthesis and where does it occur?

2. What are chloroplasts and where are they found? What is their function in a plant cell?

Part B:
Photosynthesis

Glucose is another name for sugar. The molecular formula for glucose is _____ . Plants make sugar by using the energy from _____ to transform CO₂ from the air with water from the ground into glucose. This process, called photosynthesis, occurs in the chloroplast of the plant cell. During this process, oxygen (O₂) is created as a waste product and is released into the air for us to breath. The formula for photosynthesis is:



This formula says that carbon dioxide and _____ molecules are combined with the energy from sunlight to produce sugar and oxygen. The reactants in photosynthesis (what is used) are CO₂, water and sun. The plant gets water from the ground through its roots. The plant collects carbon dioxide from the air. Much of the carbon dioxide comes from living organisms that exhale it, but some also comes from factory smokestacks and car fumes.

1. What is the formula for photosynthesis? _____
2. What three things are used to make glucose in photosynthesis? _____
3. Look at the image below, in two or more paragraphs, write the relationship you see between the different groups of organisms. How are all the organisms connected?