

Name: _____

Date: _____

Period: _____

Photosynthesis

Week # _____

Directions: Read p. 228, and p. 230-232, and p. 240. Then answer the questions below.

Question	Description
Where does the energy in food come from? (p.228)	
What are autotrophs? (p.228)	
What happens in the process of photosynthesis? (p.228)	
What is chlorophyll? (p.230)	
Where does photosynthesis take place? (p.231)	
What is the formula for photosynthesis? (p.232)	In symbols: In words:
What are factors that affect photosynthesis? (p.240)	

Check for Understanding

- When you eat a fruit or vegetable (plant), what macromolecule are you eating?
Circle one: carbohydrate protein lipid nucleic acid
- What type of macromolecule is produced by the process of photosynthesis? _____
- What do plants do with the glucose that is produced? _____
- Based on the formula for photosynthesis, what are three things that plants need to grow? _____
- Do plants perform cellular respiration? Explain. _____

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Directions: Figure 1 shows the percent composition by mass of various elements in plants. Use Figure 1 to answer the questions below.

Element	% Composition
Oxygen	61
Carbon	21
Hydrogen	10
Nitrogen	3
Magnesium	2
Phosphorous	1
Other	2

Photosynthesis equation:

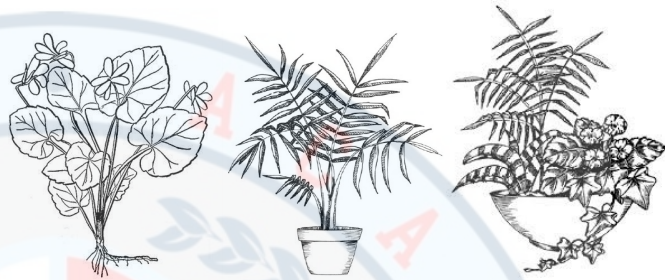


Figure 1

- Which two elements primarily make up the mass of a plant? _____
- Which reactant supplies these elements? _____
- Therefore, the mass of a plant primarily comes from:
 - Soil
 - Sunlight
 - Air
 - Water

Directions: All of the following statements are false. Edit them to make them correct.

- Plants do photosynthesis and animals do cellular respiration.
- The three things that plants need to grow are soil, water, and sunlight.
- Plants produce a protein in the process of photosynthesis.
- As a plant grows, it gets most of its mass from water.
- The reactants in cellular respiration and photosynthesis are the same.
- The products of photosynthesis are oxygen and glucose.
- The goal of cellular respiration is to produce food for the plant, which is why plants are heterotrophs.
- Photosynthesis occurs in the cytoplasm of plant cells.