

Answers

1. What is photosynthesis?

How autotrophs use sunlight to convert  $CO_2 + H_2O$  into food (glucose)

The chloroplasts do most of the work. Chloroplast

Plants need chloroplast to trap sunlight and convert it food in the chloroplast. Chloroplasts have lots of chloroplasts to capture sunlight.

2. What about the equation for photosynthesis and complete the following

These 2 molecules needed for photosynthesis:  $CO_2 + H_2O$

These 2 molecules produced by photosynthesis: glucose (C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>) + O<sub>2</sub>

3. What is cellular respiration?

How cells convert food (glucose) into ATP energy (cellular energy)

4. What about the equation for cell respiration and complete the following

These 2 molecules needed for cellular respiration: C<sub>6</sub>H<sub>12</sub>O<sub>6</sub> + O<sub>2</sub>

These 2 molecules produced by cell respiration:  $CO_2 + H_2O$

What is the "energy" molecule that is produced? ATP

5. In what cell organelle does respiration take place in eukaryotes? Mitochondria

These two processes occur in junction in the cytoplasm

Mitochondria has alot of inner membranes (it folded up) and this membrane creates the progress that build ATP

It is made from ADP and inorganic phosphate and with some "energy" produced!

What other "energy" molecule is used by this?

The mitochondria produced by each process are what's needed for the other process!  
products of photosynthesis are the reactants of C.R.,  
and reactants of C.R. are products of photosynthesis!

6. How do the two processes connect together?

Energy from photosynthesis

sunlight was used to make glucose and ATP + that energy

in the mitochondria

