

Answers

1. What is photosynthesis?

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

The chloroplasts in plants? Chloroplast

What does photosynthesis produce? Glucose

Plants need chloroplast to trap sunlight and chloroplast is found in the epidermal in autotrophs. Chloroplasts have two of thylakoids & stroma

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

Reactants needed for photosynthesis: $CO_2 + H_2O$

Products produced by photosynthesis: glucose (C₆H₁₂O₆) + O₂

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

Reactants needed for cellular respiration: $C_6H_{12}O_6 + O_2$

Products produced by cell respiration: $CO_2 + H_2O$

What is the "energy" source that is released? ATP

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

What does photosynthesis produce in plants? Glucose

Mitochondria has a lot of inner membranes (it folded up) and this membrane contains the enzymes that build ATP

It has a membrane and a matrix and a folded membrane!

What about? ATP is made by this

The ATP 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 glucose flows from

photosynthesis into glucose and ATP & that energy

is in the respiration

