

Answers

1. What is photosynthesis?

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

The chloroplasts in plants are called Chloroplasts

Plants need chloroplast to trap sunlight and convert it food in the chloroplast. Chloroplasts have two of chloroplasts & making food in it

2. What are the reactants for photosynthesis and complete the following

Reactant: $CO_2 + H_2O$

Product: $glucose + (O_2)$

3. What is cellular respiration?

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

4. What are the reactants for cell respiration and complete the following

Reactant: $glucose + O_2$

Product: $CO_2 + H_2O$

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

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

How does structure relate to function in this organelle?

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

It has a lot of folds called cristae and this is where the energy is produced!

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 energy?

Energy can only flow from

sunlight into food energy (glucose) and ATP or that energy

into the respiration

