

Log out



0 pts

2

- **Light-dependent reactions part 1.**
- In the chloroplast: chlorophyll on the surface of thylakoids absorbs photons. Electrons are excited and escape the chlorophyll.
- Photosynthesis (PS) model: inputs and outputs.
- Light Lab

3

- **Light-dependent reactions part 2.**
- In the chloroplast: electrons are replaced when photons split H_2O at the thylakoid membrane. Chemical energy is made and O_2 is released.
- PS model: inputs and outputs.
- Bee Lab

5

- In the mitochondria: O_2 combines with glucose in turning stored energy into ATP.
- ATP is cellular energy currency.
- **Cellular respiration (CR)** is a reversal of photosynthesis.
- CR model: reactants, products, balanced equation.
- Rotten Lab

Capture Light

Break Water

Make Sugar

Use Sugar

Carbon Cycle

Bonus!

1

- The **carbon cycle** allows carbon to be recycled through the planet.
- Plants have a special role in the carbon cycle because they can remove CO_2 from the atmosphere.
- Tree Lab

4

- **Light-independent reactions.**
- In the chloroplast: chemical energy combines with CO_2 absorbed from the air to form glucose in the stroma.
- PS model: reactants, products, balanced equation.
- Farm Lab

6

- **Light Bonus:** wavelengths and absorption spectrum for PS.
- Farm Finder: review climate data and choose the correct location for a farm to grow crops.
- Water Bonus: process model for PS including both light-dependent and light-independent reactions.
- Balanced equation activity for PS.
- Balanced equation activity for CR.