Name	•

Date:__

Section 3: Photosynthesis in Detail

Light-Dependent Reactions

Step	Description
1	energy absorbed from sunlight and transferred to electrons that enter an electron transport chain
2	water molecules are broken down; electrons enter chlorophyll
3	energy from electrons in transport chain is used to pump H ₊ ions across the thylakoid membrane
4	energy absorbed from sunlight is transferred to electrons
5	high-energy electrons used to produce an energy-carrying molecule called NADPH
6	H+ions flow (by diffusion) through a channel in the thylakoid membrane
7	The channel is part of ATP synthase, which produces ATP

Light-Independent Reactions energy added to molecules in the cycle; molecules 2. rearranged into higher-energy molecules 1. 3. carbon dioxide high-energy threecarbon molecule molecules enter the leaves the cycle; Calvin cycle two are bonded together to make a 4. six-carbon sugar energy added to molecules remaining in the cycle to change them into five-carbon molecules

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