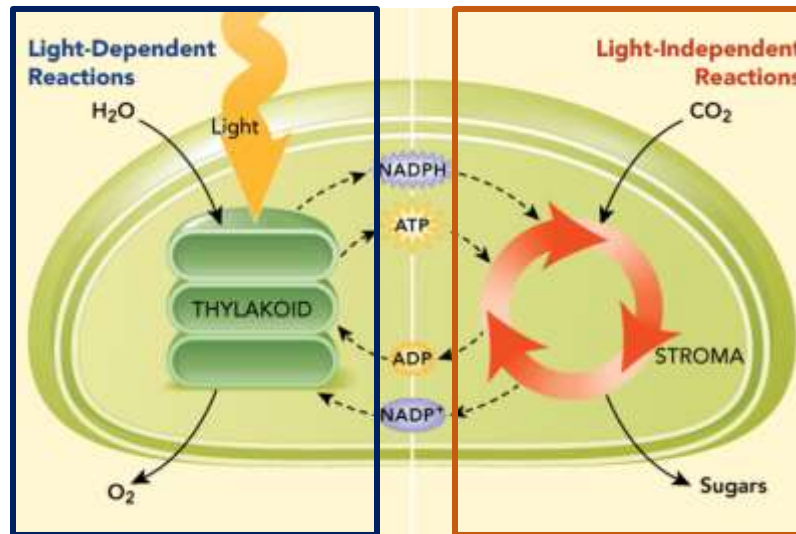


Photosynthesis

Light Dependent Reactions

1. **Red** and **blue** light from the sun is absorbed by **chlorophyll** (pigment) and excites electrons in **water**
2. Electrons go through an ETC (electron transport chain), releasing energy used to make **ATP**
3. Electrons are captured by **NADP+**, forming **NADPH**
4. **Oxygen** is released as a byproduct



Light Independent Reactions

1. Energy from **ATP** and **NADPH** is used to convert **CO₂** into **G3P**, a 3-carbon sugar
2. **ADP** and **NADP+** are recycled to bring back more energy
3. **G3P** is converted into **glucose** or used to make other macromolecules

Overall Reaction Formula

