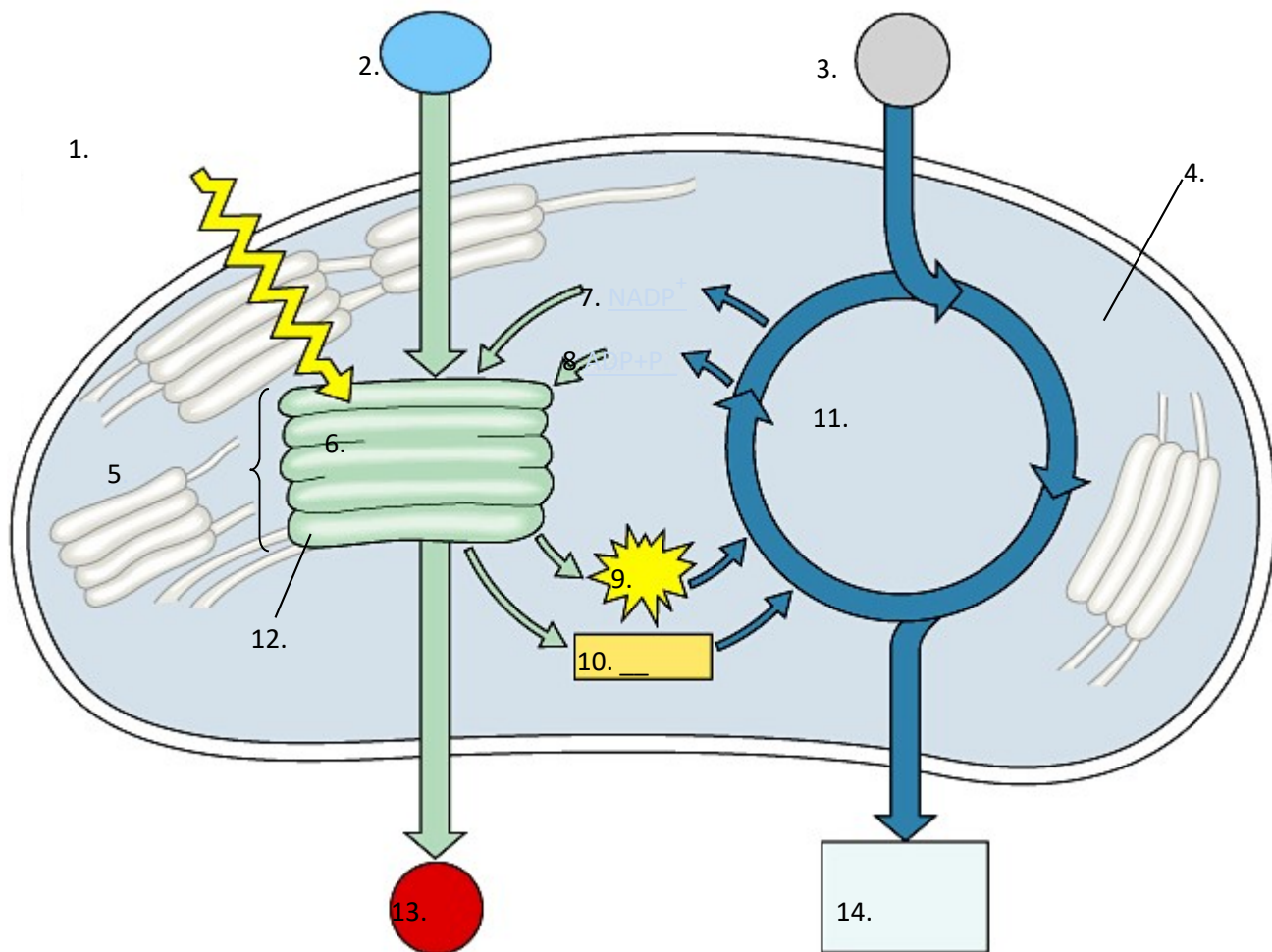


Photosynthesis Review WS – Part 1

1. What is the overall equation for photosynthesis?

2. Label the diagram below to summarize the two stages of photosynthesis. Use the word bank below the diagram to fill in the blanks.



Word list:

thylakoids

Calvin cycle

CO₂

NADP⁺

granum

light

NADPH

O₂

stroma

H₂O

ATP

ADP + P

light reactions

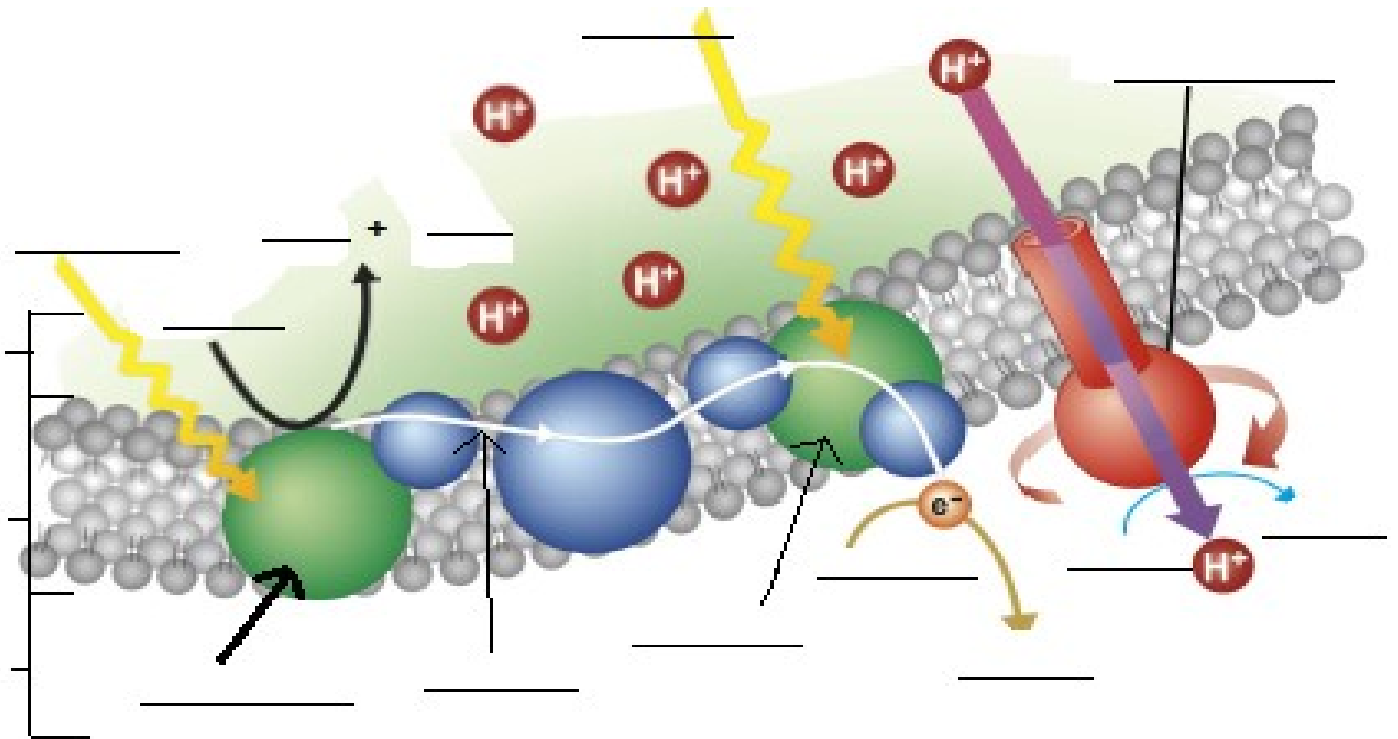
sugar

The Light-Dependent Reactions: Producing Oxygen, ATP, and NADPH

The light-dependent reactions use energy from sunlight to produce ATP, NADPH, and oxygen. The light dependent reactions take place within the thylakoid membranes of the chloroplasts. A model of the light-dependent reactions is shown below.

Follow the directions.

1. Label the diagram by filling in the blanks.



2. Which substances from the light-dependent reactions of photosynthesis is a source of energy for the Calvin cycle?

3. What is the role of ATP Synthase? How does it work?

4. What is the electron transport chain (ETC)? And why is it needed?