

Name _____

Photosynthesis: Nature's Green Energy Factory

Short Answer Key

1. The photosynthesis equation describes how plants use carbon dioxide, water, and sunlight to create glucose and release oxygen.
2. The light-dependent phase of photosynthesis occurs in the thylakoid membranes of the chloroplasts.
3. ATP and NADPH are high-energy molecules produced in the light-dependent reactions of photosynthesis. They are used to power the Calvin Cycle, where carbon dioxide is converted into glucose.
4. Photosynthesis forms the foundation of the food chain because plants produce glucose, which herbivores eat, and carnivores eat herbivores, thus transferring energy up the chain.
5. Glucose produced during photosynthesis is used for immediate energy, stored as starch or cellulose, or becomes part of the food web when consumed by animals.

