

Chapter 10

Class Notes-Part 1

I. Process for feeding the biosphere

- **Autotrophs = (Auto = self; trophos = feed).
Synthesis of food from raw inorganic materials, such as CO₂ and H₂O.**
- **Heterotrophs = (hetero = other; trophos = feed) Feeds on organic molecules from other organisms.**

(2 slides)

Question 10.1

Question 10.2

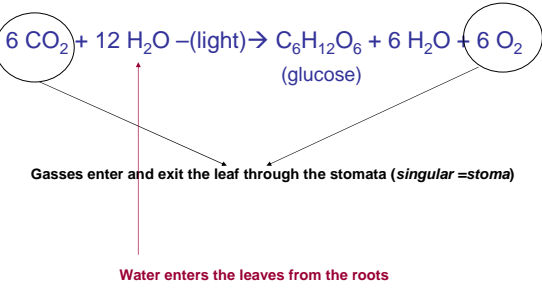
II. Chloroplasts: The site of photosynthesis in plants.

- **Leaves are the major organs of photosynthesis in most plants.**
- **Many leaf mesophyll cells are rich in chloroplasts.**

II. Chloroplasts: The site of photosynthesis in plants.

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- **Important locations for photosynthesis:**
 - 1.
 - 2.
 - 3.

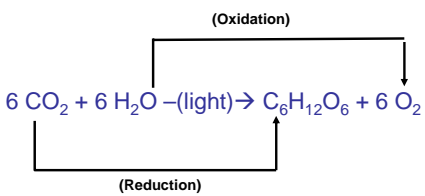
III. Other important organs of photosynthesis



IV. Tracking atoms through photosynthesis

- Overall reaction for photosynthesis:

V. Photosynthesis as a redox process (simplified)



VI. Two Stages of Photosynthesis:
An Overview

- **Stage 1. Light Dependent Reactions**

- 1.
- 2.

- **Stage 2. Calvin Cycle**

- 1.
- 2.

Question 10.3

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VII. The nature of sunlight

1. **Light travels as waves.**

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2. **Light also behaves as a particle.**

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VII. The nature of sunlight

3. Photosynthesis uses only visible light

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VII. The nature of sunlight

4. Absorption Spectra

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5. Photosynthetic Pigments

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Question 10.4
