



Photosynthesis Worksheet

A Printable Activity

 **In this activity, you will** explore the biological process of **photosynthesis**. You will complete tasks to demonstrate your understanding of how plants convert light energy into chemical energy, the structures involved, and the factors that influence this vital process.



Introduction to Photosynthesis

Photosynthesis is the fundamental process by which green plants, algae, and some bacteria convert light energy into chemical energy. This process not only sustains plant life but serves as the primary energy source for nearly all life forms on Earth by producing oxygen and organic compounds.

Term	Explanation
Chlorophyll	The green pigment in chloroplasts that absorbs sunlight for energy.
Stomata	Small pores on leaf surfaces that allow for gas exchange.
Glucose	A simple sugar produced during photosynthesis used as food by the plant.



Section A: Fill in the Blanks

Complete each sentence using the words from the bank: *chlorophyll, sunlight, oxygen, glucose, carbon dioxide, water, chloroplast, stomata, leaves, photosynthesis*.

1. The process by which green plants manufacture their own food is called _____.
2. The green pigment responsible for trapping light energy is _____.
3. Plants absorb _____ from the atmosphere through tiny pores called stomata.
4. The food produced during photosynthesis is _____.
5. The gas released as a by-product of photosynthesis is _____.

6. Photosynthesis mainly takes place in the _____ of plants.
7. The organelle where photosynthesis occurs is the _____.
8. The energy source needed for photosynthesis is _____.
9. Plants absorb _____ from the soil through their roots.
10. Tiny openings found on leaves for gaseous exchange are called _____.



Section B: Multiple Choice

Choose the **correct** answer for each question.

1. **Which of the following is the correct definition of photosynthesis?**
A. Absorbing minerals | B. Making food using sunlight | C. Reproducing | D. Losing water
2. **Which pigment absorbs light energy?**
A. Haemoglobin | B. Chlorophyll | C. Melanin | D. Carotene
3. **Which gas is taken in by plants?**
A. Oxygen | B. Nitrogen | C. Carbon dioxide | D. Hydrogen
4. **Which is NOT required for photosynthesis?**
A. Water | B. Sunlight | C. Carbon dioxide | D. Nitrogen gas
5. **Photosynthesis mainly takes place in:**
A. Stem | B. Roots | C. Flowers | D. Leaves



Section C: Short Answer

1. **Define photosynthesis.**
2. **State four requirements for photosynthesis.**
3. **State two products of photosynthesis.**
4. **Mention three ways photosynthesis is important to living organisms.**
5. **State three factors that affect the rate of photosynthesis.**

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Section D: True or False

1. **Photosynthesis occurs mainly in green leaves.** (True/False)
2. **Plants produce oxygen during photosynthesis.** (True/False)
3. **Photosynthesis takes place only at night.** (True/False)
4. **Chlorophyll absorbs light energy from the sun.** (True/False)
5. **Without photosynthesis, life on Earth would be greatly affected.** (True/False)

Answer Key

1. **Define photosynthesis:** *The process by which green plants synthesise food (glucose) from carbon dioxide and water using sunlight in the presence of chlorophyll.*
2. **Four requirements:** *Light energy, Carbon dioxide, Water, Chlorophyll.*
3. **Two products:** *Glucose and Oxygen.*
4. **Importance:** *Provides food, releases oxygen, regulates atmospheric carbon dioxide.*
5. **Factors affecting rate:** *Light intensity, Carbon dioxide concentration, Temperature.*

Teaching note



This worksheet is designed to align with the SS1 Biology curriculum. Ensure students understand that while photosynthesis happens in leaves, it can occur in any green part of the plant containing chloroplasts. This was generated by AI to give you a head start — not the final word. You know your students best, so give it a once-over and make it yours.