



Welcome to the World of Photosynthesis!

Read the following text and answer the questions that follow:

Photosynthesis is the process by which plants, algae, and some bacteria make their own food from sunlight, water, and carbon dioxide. This process is essential for life on Earth, as it provides the energy and organic compounds necessary to support the food chain.

1. What is photosynthesis?

2. Why is photosynthesis important for life on Earth?

What is Photosynthesis?

Read the following text and complete the diagram:

Photosynthesis is a complex process that involves the conversion of light energy into chemical energy. It occurs in specialized organelles called chloroplasts, which are found in plant cells. Chloroplasts contain the pigment chlorophyll, which absorbs light energy from the sun.

Label the Plant Cell:

Label the different parts of the plant cell, including the chloroplasts, nucleus, and mitochondria.

[Space for diagram]

The Importance of Photosynthesis

Read the following text and answer the questions that follow:

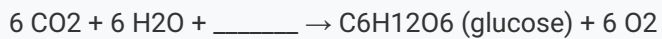
Photosynthesis is crucial for life on Earth. It provides the energy and organic compounds necessary to support the food chain. Without photosynthesis, plants would not be able to grow, and animals would not have food to eat.

1. Why is photosynthesis important for plants?

2. How does photosynthesis affect the food chain?

The Process of Photosynthesis

Complete the photosynthesis equation by filling in the missing words:



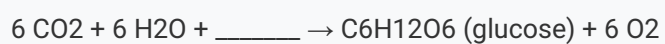
Activity 1: Label the Plant Cell

Use a simple diagram of a plant cell and label the basic parts:

[Space for diagram]

Activity 2: Photosynthesis Equation

Use a word bank to fill in the missing word:



Activity 3: The Importance of Photosynthesis

Write a short paragraph explaining the importance of photosynthesis:

Activity 4: Design a Greenhouse

Design a greenhouse that maximizes the conditions for photosynthesis:

[Space for design]

Activity 5: Photosynthesis and the Environment

Research and explain the impact of photosynthesis on the environment:

Conclusion

Summarize what you have learned about photosynthesis:

Assessment

Complete the activities and questions throughout the worksheet:

1. Complete the activities and questions throughout the worksheet
2. Participate in class discussions and debates
3. Design and present a project on photosynthesis and its importance

Extension

Research and explain the different types of photosynthesis:

Glossary

Define the following terms:

- Photosynthesis
- Chloroplasts
- Chlorophyll
- Glucose
- Oxygen

References

List the sources used in this worksheet:

- National Curriculum for England: Science
- BBC Bitesize: Photosynthesis
- Khan Academy: Photosynthesis

