



## Introduction

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### Welcome to the Science of Gardening!

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*As a 10-year-old student, you're about to embark on an exciting journey to discover the science behind gardening and the incredible world of plants. In this worksheet, you'll learn about the different parts of plants, how they grow, and what they need to thrive.*

## Vocabulary Review

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### Match the Vocabulary Words with Their Definitions

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*Match the vocabulary words with their definitions:*

1. Photosynthesis
2. Root System
3. Stem
4. Leaf

*Definitions:*

- The process by which plants make their own food from sunlight, water, and air.
- The underground part of a plant that absorbs water and nutrients from the soil.
- The above-ground part of a plant that supports the leaves and flowers.
- The part of a plant that makes food through photosynthesis.


## Plant Parts Identification

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### Identify the Different Parts of the Plant

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*Identify the different parts of the plant in the diagram below:*

 Plant Diagram

1. What is the function of the roots?
2. What is the function of the stem?
3. What is the function of the leaves?

## Photosynthesis

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### What is Photosynthesis?

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*Photosynthesis is the process by which plants make their own food from sunlight, water, and air.*

1. What are the ingredients needed for photosynthesis?
2. Why is photosynthesis important for plants?

## Plant Growth and Development

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### What Do Plants Need to Grow and Develop?

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*Plants need water, sunlight, air, and nutrients to grow and develop.*

1. How do plants make their own food?
2. What is the role of the root system in plant growth?

## Root System

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### What is the Function of the Root System?

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*The root system is the underground part of a plant that absorbs water and nutrients from the soil.*

1. How do roots absorb water and nutrients from the soil?
2. What are the different types of roots?

## Stem and Leaf

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### What is the Function of the Stem and Leaf?

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*The stem is the above-ground part of a plant that supports the leaves and flowers, while the leaf is the part of a plant that makes food through photosynthesis.*

1. What is the function of the stem?
2. What is the function of the leaf?

## Plant Diagramming

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### Create a Detailed Diagram of a Plant

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*Create a detailed diagram of a plant, including all its parts and their functions.*

[Space for diagram]



## Interactive Activities

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### Plant Part Scavenger Hunt

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*Find and identify different plant parts in the classroom or school garden.*

1. Plant Part Scavenger Hunt: Find and identify different plant parts in the classroom or school garden.
2. Photosynthesis Simulation: Design and conduct an experiment to demonstrate the process of photosynthesis.
3. Plant Diagramming: Label and illustrate each part of a plant diagram.

## Assessment and Conclusion

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### Vocabulary Test

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*Match vocabulary words with their definitions.*

1. What did you learn about the science of gardening?
2. What are some ways you can apply this knowledge in your daily life?

