

Topic 4: What steam, leave and root for?

By the end of the lesson, you will:

- Know **parts of the plant roots, stems and leaves. Structures and functions**
- Be able to **identify the organs and parts of plants; explain the functions of each**

Read the text.

What steam, leave and root for?

Plants have three main organs: **leaves**, **stems** and **roots**. What functions do leaves, stems and roots have?

Photosynthesis takes place in **leaves**. The leaves take in and expel gases from the atmosphere. They eliminate excess water in the form of water vapor. This process is called transpiration. The main part of a leaf is called



the **blade**. A leaf has a **topside** and an **underside**. A **petiole** joins the leaf to the stem. Gases and water vapor enter the leaf and are expelled through small pores. These pores, **stomata**, are found on the underside of the leaf.

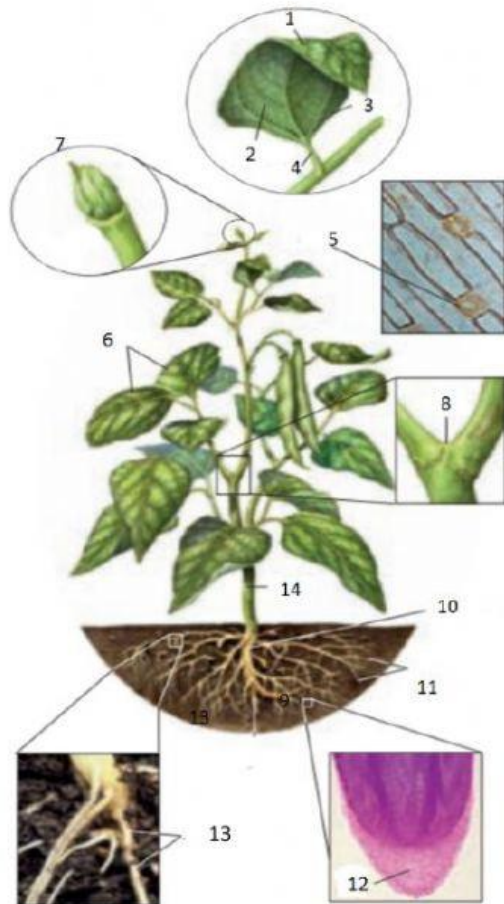
Plant **stems** are usually above ground. The stem keeps the plant upright and supports it. It also carries substances to other parts of the plant. Some stems, for example, the potato, accumulate reserves of water and food. Leaves and branches are joined to the stem at **nodes**. The part of the stem between the nodes is called the **internode**. Stems grow upwards from the **apical bud**. Lateral branches grow out of **axillary buds** along the stem.



Plant roots have two functions: to fix the plant to the ground, and absorb water and minerals. Some roots, for example, carrots and beetroots, accumulate food reserves. The root surface is covered

with many tiny **root hairs** which absorb the water and minerals. Plants have a **main root** and **secondary roots**. Each root ends in a **root cap**.

Task 1. Label the main parts of plant.



1	
2	
3	blade
4	
5	
6	
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11	
12	
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14	

What should you know? Plants have three main organs: leaves, stems and roots. Photosynthesis takes place in leaves. The stem keeps the plant upright and supports it. It also carries substances to other parts of the plant. Plant roots have two functions: to fix the plant to the ground, and absorb water and minerals.

