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Period 2

Subtopic: The leaf - Structure of a leaf , Types of leaves- simple and compound , Arrangement of leaves

SUBJECT : (Science)
CHAPTER NUMBER: 1
CHAPTER NAME : Getting to know plants

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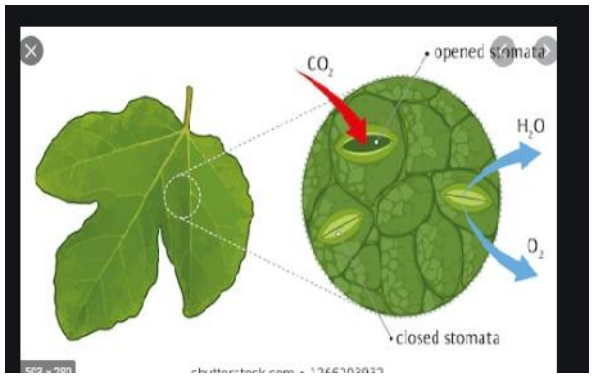
THE LEAF

- **The leaf** is a thin, flattened, green part of a plant that is a attached to the stem or branch at a **node.**

- Leaves contain tiny openings called **stomata,** through which exchange of gases, such as **carbon dioxide, oxygen** and **water vapour** takes place.



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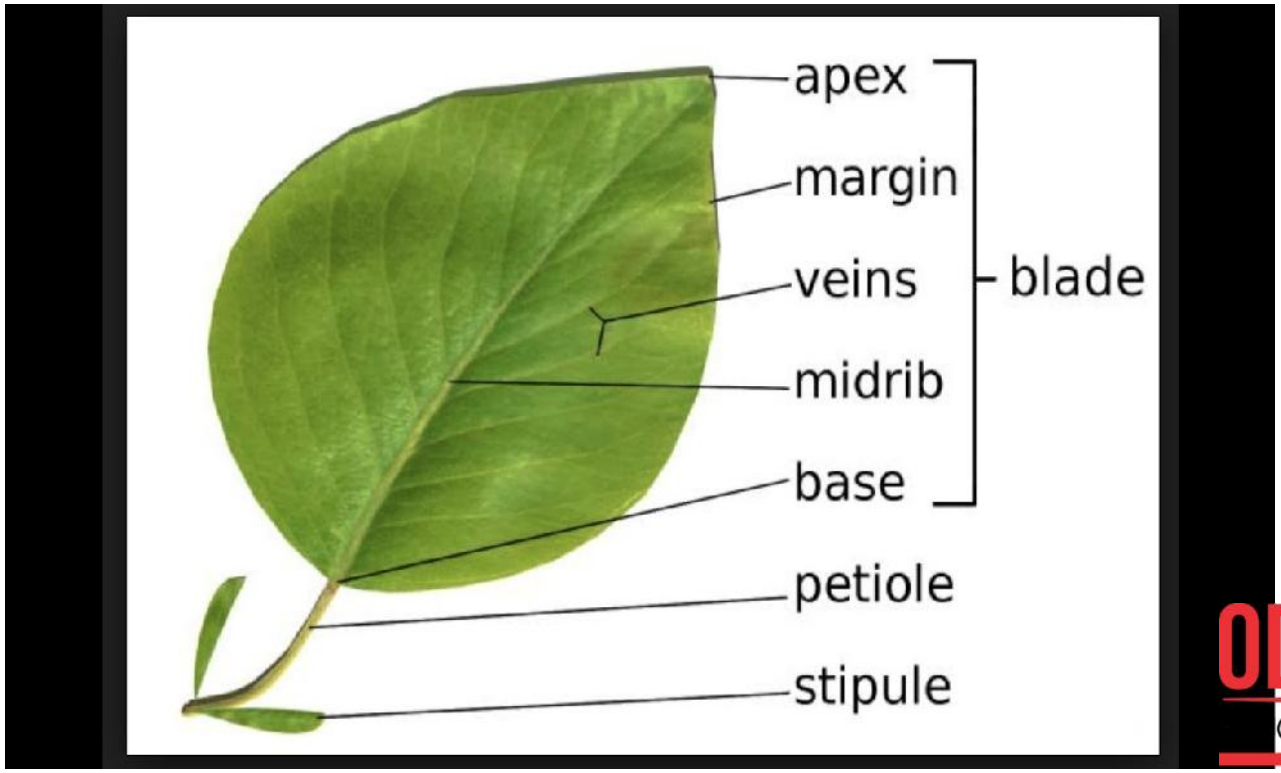
PARTS OF A LEAF



PARTS OF A LEAF

- The leaf has different parts - **lamina, petiole, apex, margin, midrib and veins.**
- The flat, broad and green portion of the leaf is called leaf blade or **lamina**.
- The tip of the leaf is called **apex.**
- The edge or boundary of the leaf is called **leaf margin.**
- The fine lines which spread across the lamina are the **veins.**
- The **midrib** is the main vein which continues from the petiole and runs from the base of the leaf to the apex.
- **Stipule** is the leafy outgrowth at the base of some leaves or its stalk , usually occurring in pairs and soon shed.

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Types of leaf

A simple leaf consists of a single lamina, which is not divided into segments . E.g mango, guava etc.

A compound leaf is one in which lamina is divided into several small leaflets , each attached to the same petiole.

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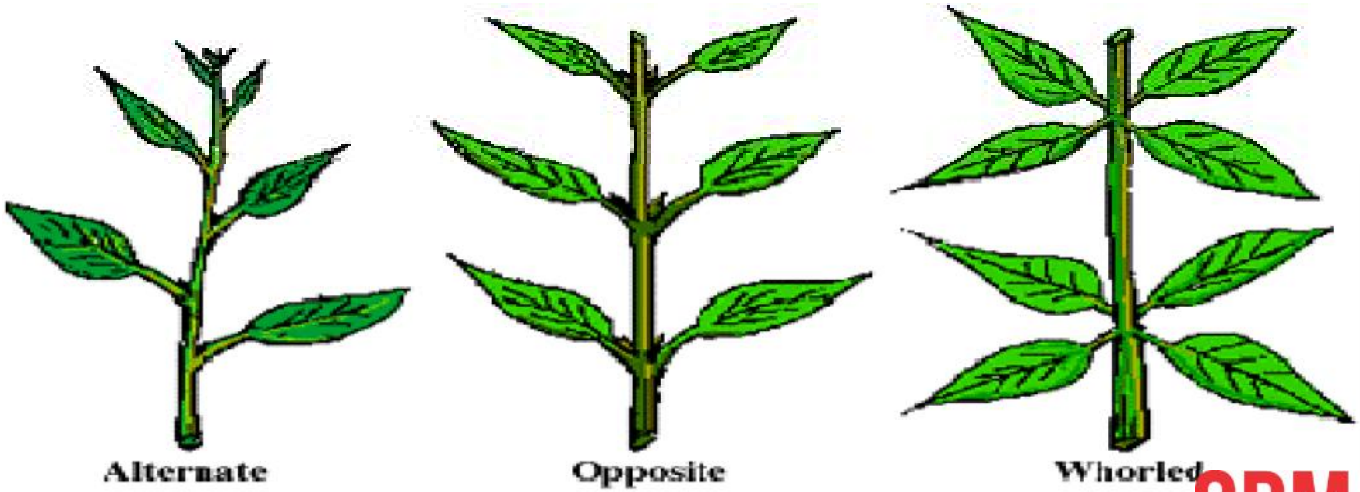
- **Arrangement of leaves**

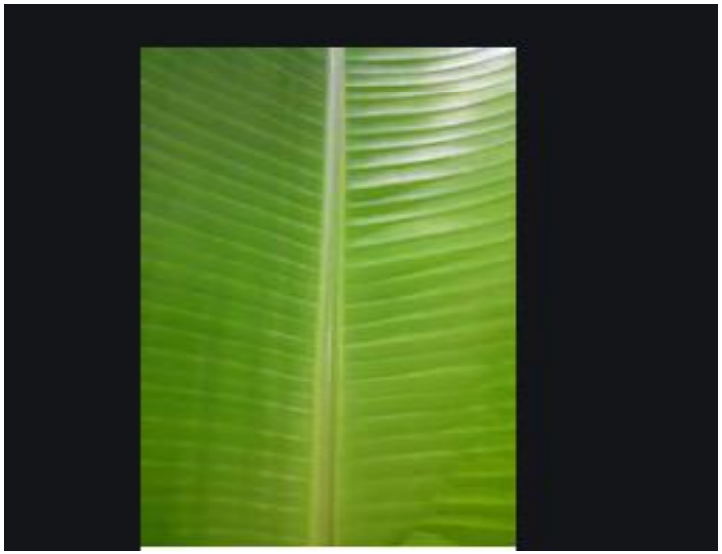


VENATION

- The arrangement of veins in a leaf is called **venation.**
- There are two types of venation- **parallel venation and reticulate venation.**
- **In parallel venation**, **all the veins run para**llel to each other from the base to the apex of the leaf.
- **In reticulate venation**, veins are arranged in the form of **a net- like pattern on the leaf .**

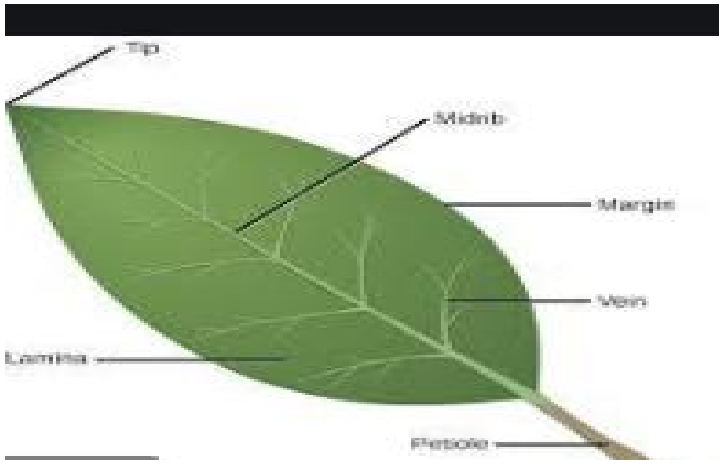
PARALLEL VENATION

- **Parallel venation** is seen in plants such as rice, wheat, bamboo, sugarcane and onion.
- In general, plants with **parallel venation** have **fibrous roots.**

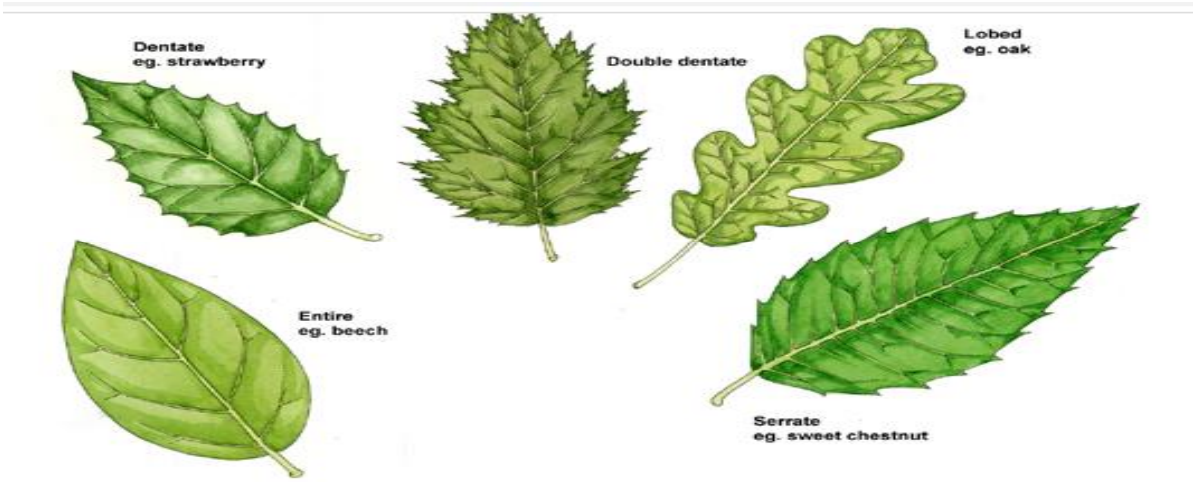


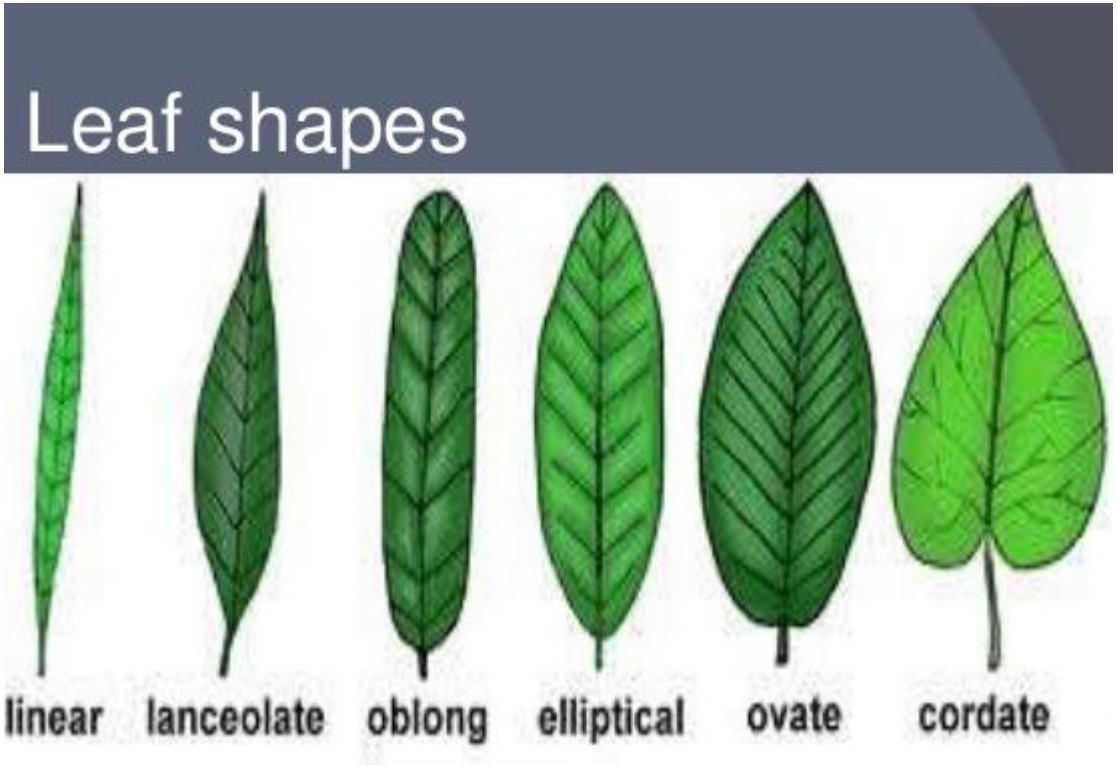
RETICULATE VENATION

- **Reticulate venation** is seen in plants such as rose, peepal, mango neem and Hibiscus.
- Plants with **reticulate venation** have **tap roots.**



Classification of leaves on the basis of margin





Classification of leaves on the basis of shapes

THANKING YOU

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