Plant cell organisation

Plants also have tissues organs and organ systems

- Plants are made up of organs like leaves stems and roots
- These organ work together to help the plant survive grow and move substances around

Plant tissues

Epidermal tissue

- It covers the whole plant
- it protects the plant

Palisade mesophyll

- It is found in leaves
- Where most photosynthesis happen

Spongy mesophyll

- It is found also in leaves
- it has big air spaces to help gases move in and out

Xylem and phloem

- Xylem carries water and Minerals from Roots to the whole plant
- Phloem carries food around the plant

Meristem tissues

- Found at the tips of roots and shoots
- It helps the plant grow because cells can change into other types of plant cells

Adaptations of leaf tissues

Epidermis

- It has a waxy cuticle that reduces the water loss
- Upper epidermis is transparent and it lets light reach the cells below

Palisade layer

- It has lots of chloroplast for photosynthesis
- it is positioned at the top of leaf to get the most light

Xylem and phloem

- Form vascular bundles
- bring water and nutrients to the leaves
- it can carry glucose away from the leaves
- it can also give the support to the leave

Spongy mesophyll

It has air space and when there will be faster gas movement

Stomata and guard cells

Stomata is the small holes in the lower epidermis

- **Stomata let the carbon dioxide in for the photosynthesis**
- **Guard open and closed stomata depending on conditions**