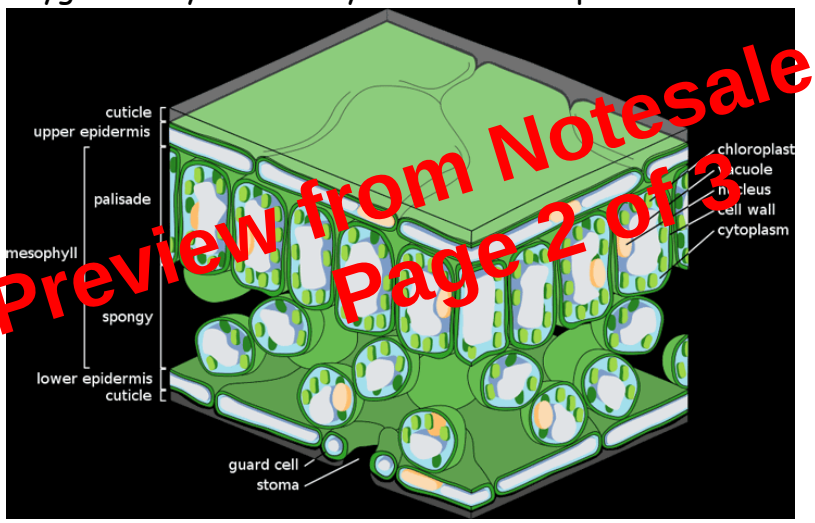
- Parts of a leaf
  Waxy cuticle: this reduces water loss. This is thicker on the upper side than the lower side because the upper side more exposed to sunlight
  Upper epidermis: it is the covering which one cell thick. Transparent to allow the passage of light and protects the plant form bacteria and other diseases
  Palisade mesophyll: tall thin cells arranged in columns with small air spaces. They have a lot of chloroplasts and the dense packing allows the maximum absorption of light
  Vein: this is the transport of the leaf, it consists of the xylem and phloem vessels. Xylem vessels transport water and mineral salts while the phloem transport the organic products from photosynthesis
  Spongy mesophyll: these cells are loosely packed and are covered with water. The air spaces between them help the diffusion of CO2 in and oxygen out.
  Stomata: these pores allow the entry and the exit of carbon dioxide and oxygen. They are mainly in the lower epidermis than the upper.



- Photosynthesis depends on the availability of light, the presence of a pigment to absorb light, a supply of carbon dioxide and water and a temperature suitable for enzyme activity
- If any of these factors are in short supply the rate of photosynthesis will decrease
- In a greenhouse farmers can control the limiting factors to maximise photosynthesis. In this process all factors are controlled an if there is a shortage this factor is increased
- Green plants can respire and photosynthesise. If the rate of photosynthesis is less than the respiration rate the plant will remove oxygen and add oxygen. So it will respire