

Keyword	Definition
Photosynthesis	Process carried out where plants make their own food.
Chlorophyll	Green pigment in chloroplasts of plant cells. It enables photosynthesis to take place.
Chloroplasts	Contain the green pigment chlorophyll; the site photosynthesis
Waxy Cuticle	Waxy layer, prevents water loss.
Upper Epidermis	Thin and transparent allowing light to pass through.
Palisade Mesophyll	Main region for photosynthesis. Lots of palisade cells contain lots of chloroplasts.
Spongy Mesophyll	Cells are more loosely packed. Contains air spaces between cells allowing gas exchange.
Lower Epidermis	Contains stomata to regulate the loss of water vapour (transpiration)
Stomata	Each stomata surrounded by a pair of guard cells. Guard cells control whether they're open or closed.
Petals	Brightly coloured to attract insects.
Stamen	The male part of the flower (each consist of an another held up on a filament)
Stigma	The top of the female part of the flower which attracts pollen.
Anthers	Produce male sex cell (pollen grains)
Ovary	Produces the female sex cells (contained in the ovules)
Nectary	Produce a sugary solution called nectar, which attracts insects.

Green plants and algae do not eat food to get their energy, instead they make their own food by a process called **photosynthesis**. Photosynthesis takes place inside plant cells with the chloroplasts

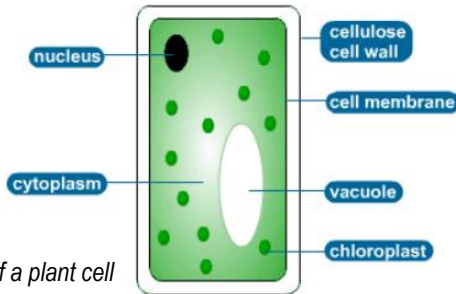
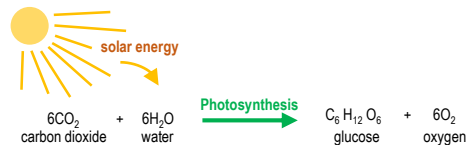


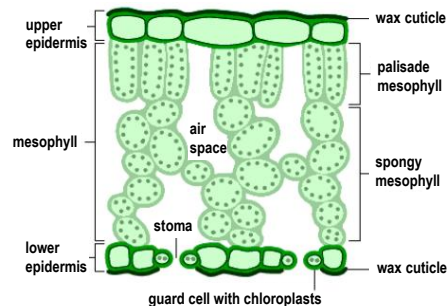
Diagram of a plant cell

Chloroplasts contain a green pigment called **chlorophyll**. This absorbs light energy needed for photosynthesis to occur.

Plants use the raw materials; Carbon Dioxide and Water. With the presence of light energy from the sun, the raw materials are converted into Glucose and Oxygen



The Leaf Structure



This plant is **deficient in nitrate** ions. Shows poor growth and yellow leaves. Nitrate ions are needed to build proteins and to help the plant grow.



The plant is **deficient in phosphate** ions. Phosphate ion are needed to ensure good root growth. The leaves are starting to turn purple.



The plant is **deficient in magnesium** ions. Yellow leaves start to form, so rate of photosynthesis is reduced. Magnesium ions are needed for photosynthesis.



The plant is **deficient in potassium** ions. Potassium ions are needed for making flowers and fruit. The leaves are turning yellow, with dead spots.

