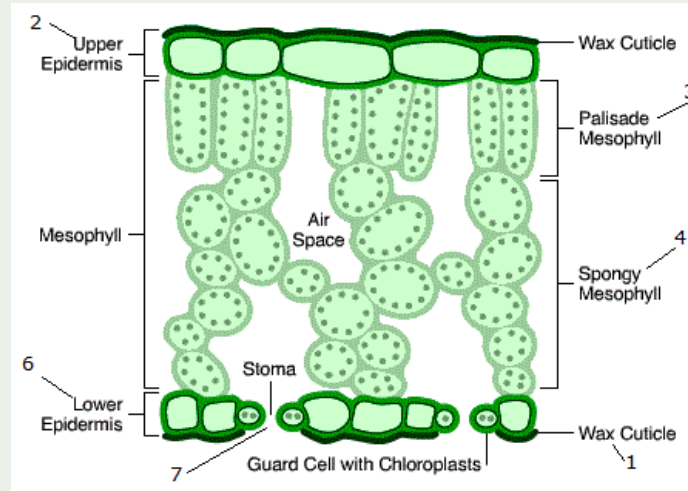


Photosynthesis

Key words

word	definition
Chloroplast	part of the cell where photosynthesis occurs
Chlorophyll	green pigment which absorbs light for photosynthesis
Palisade layer	layer of the leaf with the most chloroplasts
Fertilisers	Substances containing minerals needed for plant growth
Stomata	tiny holes on the underside of leaves which
Photosynthesis	The process by which a plant makes energy

Key diagram – Structure of a leaf



Key knowledge

facts

Palisade layer has the most chloroplasts to carry out photosynthesis.

Stomata let carbon dioxide into the leaf.

The whole leaf has a large surface area to absorb sunlight.

Carbon dioxide + water → glucose + oxygen

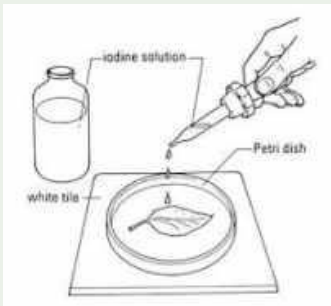
Chlorophyll contain chloroplasts

Plants store energy as starch

The rate of photosynthesis increases as light intensity increases

Required practical – Viewing cells using a microscope

when plants photosynthesise they produce glucose which is changed into starch. Method: boil leaf for 5 minutes, then place in hot ethanol to decolourise. Spread on a white tile and cover with iodine – a black colour means starch is present.



Key process – Measure rate of photosynthesis

Measuring rate of photosynthesis shine a light on pondweed and count the bubbles of oxygen produced in a certain time. You can change the distance of the lamp from the pond weed. You must keep the temperature of the water the same.

