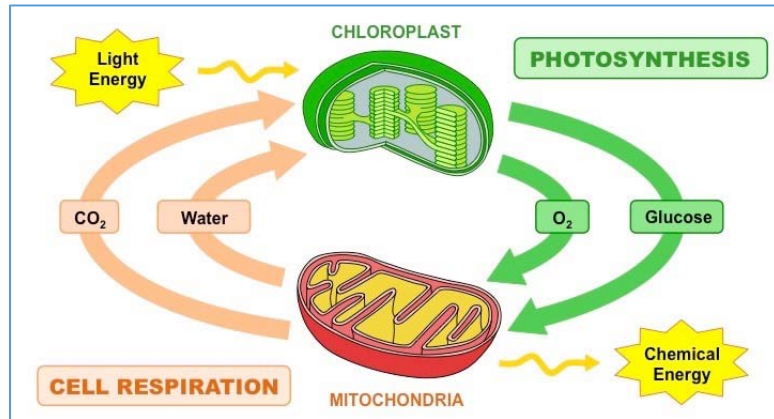


Photosynthesis



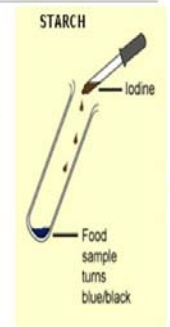
Key Terms:

Chloroplast	Plant cell organelle where photosynthesis happens.
Chlorophyll.	Green pigment that absorbs light for use in photosynthesis.
Deficiency.	A lack of minerals that causes poor growth.
Fertiliser.	Chemical containing minerals that plants need to build new tissues.
Photosynthesis.	The process plants and algae use to make their own food. Carbon dioxide and water react together to make glucose and oxygen.
Producer.	Organism that makes its own food using photosynthesis.
Starch	Plants store soluble glucose as insoluble starch
Stomata (stoma)	Pores (holes) found on the bottom of the leaf that allow gases to diffuse in and out of the leaf.



Test for Starch

- Add a few drops of iodine solution to the solution being tested.
- **Positive Test** – solution turns blue / black colour.



Most leaves have similar features:

- They are **green** – because of chlorophyll needed to capture energy from the Sun.
- They are **thin** – so that gases can diffuse in and out easily.
- They have a **large surface area** – to absorb as much light energy as possible.
- They have **veins** – containing xylem tubes to transport water, and phloem tubes to transport glucose.

Leaves are divided into two main layers:

- The **palisade layer** (at the top of the leaf) contains many chloroplasts and is where most photosynthesis takes place.
- The **spongy layer** (the underside of the leaf) contains air spaces and the stomata which allow carbon dioxide to enter and oxygen to leave the leaf.

