

Chloroplast

Consumer

Year 8 Photosynthesis Knowledge Organiser



1. Photosynthesis Keywords	
Photosynthesis	The process by which plants make food using carbon dioxide, water and light.

	using carbon dioxide, water and light.
Starch	Type of carbohydrate found in plants made from glucose. Used for storage.
Stomata	Openings in the leaves of plants. Opened and closed by guard cells allowing gases to enter and leave the leaf.

Diffusion	The spreading out of particles from and area of high concentration to an area of
	low concentration.

	takes place.
Biomass	The amount of biological material in an
	organism.

The organelles in which photosynthesis

Glucose	A simple sugar

Carbon dioxide	A reactant used by plants during photosynthesis
Xylem	Non living cells in plants that transport

	water from the roots to the leave
Palisade cells	Contain lots of chloroplasts

Fertilisers	Contains minerals that help plants grow.

Minerals	Needed by plants and animals for growth
	and development

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Producer	An organism that is able to make its own food

An organism that has to eat other organisms to survive.

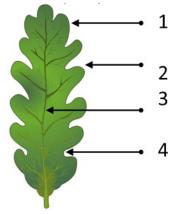
2. Photosynthesis

Carbon dioxide + Water -- > Glucose + Oxygen

3. Testing for starch

Iodine solution will turn from brown to blue/black in colour.

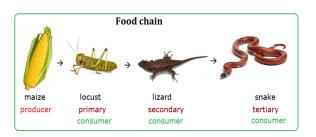
4. Leaf Adaptations	
Chloroplasts (containing Chlo- rophyll)	Chlorophyll absorbs light for use in photo- synthesis. Photosynthesis takes place in the chloroplasts
Veins	Contains a xylem to carry water. Phloem takes away the products of photosynthesis
Air spaces	To allow diffusion of gases in and out of the palisade cells



- 1 thin this allows gases to reach cells easily
- 2. wide and flat this create a large surface area to absorb as much light as possible
- 3 veins these carry water to the cells and carry glucose away and also support leaves
- 4. stomata these are pores on the underside of leaves through which gases move in and out. -

5. Food Chains and webs

Food chains and Food Webs show who eats what in an ecosystem. Arrows in a food chain show the flow of energy



Keywords	Meaning
Food chain	A way of showing what eats what in a habitat.
Food web	Many food chains linked together.
Producer	Organism, usually a plant, that makes its own food through Photosynthesis.
Consumer	Organism that eats producers or other consumers.
Carnivore	Organism that only eats other consumers (always at least a 2 nd consumer)
Herbivore	Organism that eats only producers (always a 1 st consumer).
Omnivore	Organism that eats both producers and consumers.
Predator	Organism that hunts and eats other animals.
Prey	Organism that is hunted and eaten by a predator.