

B2 (YEAR 7 – Photosynthesis and Energy in Biomass)

1	What is photosynthesis?	A chemical reaction in which plants produce glucose and oxygen
2	What is the word equation for photosynthesis?	Carbon dioxide + water → glucose + oxygen
3	What is the symbol equation for photosynthesis?	$6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
4	What gas is taken in by the plant during photosynthesis?	Carbon dioxide
5	What gas is produced by the plant during photosynthesis?	Oxygen
6	What are chloroplasts and what is their function?	Organelles in a plant cell that contain chlorophyll. They conduct photosynthesis
7	What is chlorophyll and what is it's function?	A green pigment inside of chloroplast that absorbs energy needed for photosynthesis
8	Where does the water come from for photosynthesis?	Absorbed by the roots from the soil
9	Where does the carbon dioxide come from for photosynthesis?	The air
10	How does oxygen from photosynthesis leave the plant?	Through the stomata
11	What are the 5 main layers of a leaf?	Waxy cuticle, upper epidermis, palisade layer, spongy mesophyll and lower epidermis
12	What are stomata?	Small pores on the underside of a leaf
13	What are guard cells and what are their function?	Cells that are on either side of the stomata. They open and close the stomata to control what gases enter and leave the plant
14	Why are there no chloroplasts inside of plant root cells?	There is no sunlight in the soil
15	What is a food chain?	A diagram that shows what an organism eats. It shows the transfer of energy between organisms.
16	What are prey?	Animals that are food for another animal
17	What are predators?	An animal that preys on other animals.
18	What is the energy source in a food chain?	The sun.
19	What is a producer?	The first organism in a food chain.
20	What is a herbivore?	An animal that only eats plants.
21	What is a carnivore?	An animal that eats other animals.
22	What is an omnivore?	An animal that eats both plants and other animals.
23	What is a primary consumer?	The animals that eat the producers
24	What is a secondary consumer?	The animals that eat the primary consumers.
25	What is a tertiary consumer?	The animals that eat the secondary consumers.
26	How is energy transferred from the sun to the producer?	Energy from the sun is stored in glucose which is taken in by consumers
27	What is a food web?	A set of linked food chains.
28	What does a food web show?	The feeding relationships amongst a group of living things

29	What is interdependence in a food web?	Where organisms in a food web depend on each other for food
30	What is Bioaccumulation?	Toxic materials can build up in food chains.
31	Is the impact of bioaccumulation greater on the primary or tertiary consumer?	Organisms higher up the food chain are likely to be the worst affected as the toxins build up. Tertiary consumers
32	What is the stamen?	The male part of the flower. Made up of the anther and the filament.
33	What is the Carpel?	The female part of the flower. Made up of the stigma, style and ovary
34	What is the function of the Sepal?	They protect the flower and the bud – found below the main petals.
35	What is self-pollination?	Pollen is transferred from stamen to stigma on the same plant
36	What is cross-pollination?	Pollen is transferred from the stamen of one plant to the stigma of a different plant
37	What is insect pollination?	Pollen is transferred via insects
38	What 3 features can plants have that help insect pollination?	<ol style="list-style-type: none"> 1) Bright coloured flowers 2) Scented flowers with nectaries 3) Sticky stigma
39	What is wind pollination?	Pollen is transferred via wind
40	What 4 features can plants have that supports wind pollination?	<ol style="list-style-type: none"> 1) Usually small dull petals 2) No scent 3) Long filaments hang anther outside the flower 4) Stigmas are feathery to catch pollen