



Worksheet 1: Parts of a Plant Cell

MARKING SCHEME • Stage 7 Science • Unit 1: Cells • Focus

Total: 20 marks

Q	Question	Answer	Marking guide	Marks
1	The diagram shows a plant cell with parts labelled A to F (see worksheet diagram). Name the parts labelled A to F using the word bank: cell wall, cell membrane, cytoplasm, nucleus, sap vacuole, chloroplast.	A = chloroplast; B = cell wall; C = sap vacuole; D = cytoplasm; E = nucleus; F = cell membrane	1 mark for each correct name (6 marks). Accept "vacuole". Spelling must be recognisable (e.g. "cloroplast" accepted; "cell wal" accepted).	6
2	Write the name of the part of a plant cell that does each job: (1) controls the activities of the cell; (2) strengthens the cell and gives it support; (3) where photosynthesis takes place; (4) controls which substances go into and out of the cell; (5) holds cell sap and helps to keep the cell firm.	1. nucleus 2. cell wall 3. chloroplast(s) 4. cell membrane 5. sap vacuole	1 mark for each correct part (5 marks). Accept "vacuole" for item 5. Do not accept "cytoplasm" for any item.	5
3	Plant cells also contain tiny structures called mitochondria. State what mitochondria do.	They release energy (from food / glucose) for the cell. (Accept: they carry out respiration.)	1 mark. Accept "release energy" or "respiration". Do not accept "make energy" or "store energy".	1
4	State two parts that are found in plant cells but not in animal cells.	Any two from: cell wall; chloroplasts; (large) sap vacuole	1 mark each (max 2). Accept "permanent vacuole" / "large vacuole". Do not accept nucleus, cytoplasm, cell membrane or mitochondria.	2
5	Explain why chloroplasts are important to a plant.	They contain chlorophyll (1) which absorbs light energy (1) so the plant can make food / glucose by photosynthesis (1).	3 marks: (1) chloroplasts contain chlorophyll / green pigment; (1) absorbs / traps light (energy); (1) used for photosynthesis to make food (glucose). Accept answers in any order.	3
6	Tick True or False: (1) Plant cells have a cell wall made of cellulose. (2) The nucleus is where photosynthesis happens. (3) Most chemical reactions take place in the cytoplasm.	1: True; 2: False; 3: True	1 mark for each correct row (3 marks). Both boxes ticked = no mark.	3
			TOTAL	20