

Photosynthesis

4.		C				
5.	(a)	Statement	Stage 1	Stage 2	2	1 mark for each correct column Any additional ticks in a column negate the marks for that column.
		Carbon dioxide required		✓		
		Light energy required	✓			
		Water required	✓			
		Sugar produced		✓		
		ATP + Hydrogen required		✓		
		Oxygen produced	✓			
(b)	Photosynthesis is controlled by enzymes / enzymes are needed		1	2		
	(At high temperatures) enzymes are denatured/do not work.		1			
(c)	Light Intensity } Temperature } either order			1	Both required Not Acceptable - Heat or light	
4.	(a)	Name of the first stage: light reactions (1) Diffuses out of the leaf: oxygen (1) Two products used in second stage: hydrogen and ATP (1)			3	both answers required.
	(b)	Forms sugar/glucose/starch (1) ATP provides energy/hydrogen combines/reacts/joins with CO ₂ (1)			2	Any additional wrong biology negates this mark. Any additional wrong biology negates this mark. Indicate correct and incorrect points and give overall mark by annotating with ticks/crosses.

6	C	
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4.	B	
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5.	B	
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(c)	Light intensity/carbon dioxide concentration.	1
(d)	Substance X - carbon dioxide /CO ₂ (1)	2
	Substance Y - starch (1)	