# Y8 Photosynthesis and Respiration Homework Grids

Name:	
Science Teacher:	

	Comment
Grid 1.1	
Grid 1.2	
Grid 1.3	
Grid 1.4	
Grid 1.5	
Grid 1.6	
Grid 1.7	
Grid 1.8	

## Grid 1.1: Use KO 33-34



Using the diagram below write a word equation for photosynthesis	Higher Explain how a plant gets the reactants needed for photosynthesis to the leaves. (Explain – use the word "because")
carbon dioxide sunlight glucose oxygen	
water > *	
+++++	
Write definitions for each of the following terms:	
Chlorophyll	
Fertiliser	
Stomata	

Grid	1.2:	Use	KO	34
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What chemical should you use when testing a leaf for starch?	<u>Higher:</u> Write a method for how you would test a leaf for starch. In your method, include any safety precautions you should take.
Describe the results of the test for when starch is present	
in a leaf.	
What is glucose in plants used for?	

Grid	1.3	: Use	KO	34
$\mathbf{O}$				•

What factors affect photosynthesis? Name at least 3.	Using the graph below, describe how light intensity affects rate of photosynthesis
	Rate of photosynthesis (bubbles of oxygen released)
	Bate of photosynthesis ibbles of oxygen release
What minerals do plants need and why are they needed?	Rate (bubble
	0 2 4 6 8 10 12 14 16  Light Intensity (units)
Where do plants get these minerals from?	

Grid	1.	4:	Use	KO	33-	-35
$\mathbf{v}$						

Describe how carbon dioxide, water and light are absorbed by the plant.	Describe what happens to the glucose and oxygen that a plant produces.
<u>Higher:</u> Write a balanced symbol equation for photosynthesis	Higher: Write a balanced symbol equation for respiration
+++	+++

Grid	1.	<b>5</b> :	Use	KO	33	-34
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Due:		
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Explain why a lack of carbon dioxide affects the rate of photosynthesis.	In the school pond there were lots of water lilies with large leaves covering the surface. There were <b>not</b> many plants growing below the
	surface. Suggest a reason for this.
Plants require magnesium to make chlorophyll. Suggest how you would know a plant didn't have enough	Describe how a cactus is adapted to its environment
magnesium from looking at the leaves.	

Grid	1	6:	Use	KO	35
$\mathbf{O}$		- •			

Using the reactants and products on page 37, write a word equation for aerobic respiration.	Higher: Describe in detail how the reactants for respiration get to cells around the body			
+++				
<del></del>				
Multiple definitions for a poly of the fall action to make				
Write definitions for each of the following terms:				
Respiration				
Mitochondria				
Acrobic Posniration				
Aerobic Respiration				
••••••				

<b>Grid</b>	1_	<b>7</b> :	Use	KO	33	-35
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Due:
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Complete the table below. The first row has been done for you.

	Aerobic	Anaerobic
Uses glucose	Y	Y
Needs oxygen		
Doesn't need oxygen		
Provides most energy		
Carbon dioxide can be a product		
Lactic acid can be a product		
Ethanol can be a product		
Water can be a product		

Higher: Explain why you continue to breathe heavily after				
exercise even though you've stopped.				

Grid	1	.8:	Use	KO	33	-35
$\mathbf{v}$		. •				

Higher: Using your completed table on Grid 1.7, compare aerobic and anaerobic respiration	What is fermentation?
	NATIONAL in the project of the product Office is the product of th
	What is the mitochondria? Is it used in anaerobic respiration?