## Questions

What are thylakoids and why are they important to photosynthesis?	C4 plants separate the initial uptake of carbon dioxide from the Calvin cycle. True or False?	The light dependent reactions produce NADPH. True or False?	Plants only photosynthesize during the day. True or false?
Plants are green, but a plant provided with only green wavelengths will barely survive. True or False?	Cellular respiration only takes place in animal cells True or False?	Why is water needed in photosynthesis?	Photosynthesis only takes place in the leaves. True or False?
Distinguish between cyclic and non cyclic photophosporylation	Where does the Calvin cycle take place?	What is the function of the Calvin cycle?	During the first phase of the Calvin Cycle, carbon dioxide is incorporated into ribulose biphosphate to form
Define photosystem.	If you plant a tree in a pot of soil there will be less soil 5 years later. True or False?	What are the coloured leaves seen in Autumn due to?	Studying photosynthesis helped scientists create these
Who is the Krebs cycle named after?	What is the name of the 4-carbon compound that combines with each of the Acetyl-CoA molecules?	Why does the Krebs cycle spin twice?	What are the products of glycolysis?
Where does the Krebs Cycle take place?	How many carbons are in citric acid?	How many ATP's are created in glycolysis?	What is NAD+?
What is the energy tally from 1 molecule of pyruvic acid during the Krebs cycle?	What is the total number of ATP formed during cellular respiration?	What pathway does cellular respiration begins with?	Where does the electron transport chain take place?
What are the end	Name an organism in	List two differences	How does a human feel

products of ethanol fermentation?	which alcoholic fermentation takes place?	between anaerobic and aerobic cellular respiration.	the presence of lactic acid in the tissue or the body?
Name three food products of fermentation.	What are probiotics?	Define fermentation.	What are the products of lactic fermentation?
Some bacteria will go through fermentation even in the presence of abundant oxygen. True or False	Yeast are from the kingdom Protista and are not alive. True of False.	Fermentation is a new technique that was just invented. True or False.	During fermentation energy is produced in the form of 2 ATP.

## **Answers**

One of many interconnected saclike membranes disks within the chloroplast containing the molecules that absorb energy from the sun	True	True	False
True- Even though the accessory pigments absorb green light, chlorophyll, the main pigment reflects it	False- cellular respiration takes places in the mitochondria of plant cells	It provides the electrons to replace lost electrons in photosystem II	False
Cyclic is when the electron is not used to reduce NADP+ but instead passed back to b6-f complex, where the energy is used to generate the proton gradient	In the stroma of chloroplast	To fix carbon dioxide	3-phosphoglycerate
One of two protein- based complexes composed of clusters of pigments that absorb light energy	False	Accessory pigments	Photovoltaic cells
Hans Krebs	Oxaloacetate	2 pyruvate molecules after glycolysis	2 pyruvate, 2 net ATP, 2 NADH, 2 H+, 2 ADP
Mitochondrial Matrix	6 carbons	Two net ATP	Nicotinamide adenine dinucleotide: NAD+ coenzyme used to shuttle electrons to the first component of the electron transport chain in the mitochondrial inner membrane

		Glycolysis	
1 ATP	36 ATP		Inner mitochondrial membrane and intermembrane space
		One requires oxygen, the other does not.	
Carbon dioxide, ethanol and NAD+	Yeast	One produces energy	Muscle soreness.
Ctilation and NAD		in the form of ATP, the other does not.	
		A process in which	
		the hydrogen atoms	
Bread, soy sauce, pickles, cheese, yogurt, milk	Friendly bacteria that help gut flora.	of NADH are transferred to organic	
		compounds	Lactace and NAD+
		other than an	
		electron transport chain	
True			
	False	False	False