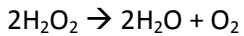


Photosynthesis & Cell Respiration Practice Test

Bring back a completed, graded, signed practice test in order to use one side of a page of hand-written notebook paper on the upcoming test Thursday. You must have your signed, graded, completed, practice test with you to hand in on the day of the test.

Biochemistry Review Stuff

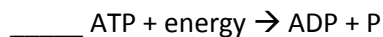
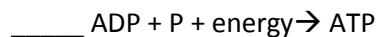
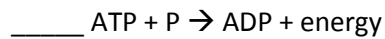
- 1) (BC1) Label the products(P) and reactants® in the equation below.



- 2) (BC2) The above equation is why hydrogen peroxide (H_2O_2) is found in brown bottles. In clear bottles sunlight cause the reaction to occur, making the peroxide fizz out all it's usefulness. What is sunlight to the reaction?

- 3) (BC3) Mr. C has a blue tie on. Explain using light and pigments why his tie appears blue. Remember that light contains the colors ROYGBIV. _____

- 4) (BC4/BC5) Label the reactions for which is the correct way to create ATP (C) and which is correct to use ATP (U).



- 5) (BC6/BC7/BC8) Check each correct statement, correct the underlined work if it's false.

_____ Enzymes are **carbohydrates** in the body

_____ Catalysts **speed up** reaction rate

_____ Catalysts **raise** activation energy

_____ Enzymes are affected by pH, concentration, and **humidity**

_____ Enzymes' active sites and their substrates (what they work on) fit together like a "lock & key"

Photosynthesis

water	oxygen	green	blue&red	thylakoid	chloroplast	chlorophyll
exciting	ATP	NADPH	CO_2	ADP	NADP+	cycle
glucose	stroma	Hans Krebs	Melvin Calvin	Calvin cycle	Krebs Cycle	

- 6) (P1) Write out the equation for photosynthesis including energy.

- 7) (P2/P7) The products of the light reactions are _____ & _____ which are used in the Calvin Cycle, and _____ which we breathe in.

- 8) (P3) The major pigment in the light reactions is _____, which makes plants green because it reflects _____ light back at us. This light acts as the _____ for the reaction by _____ electrons (raises their energy level).

- 9) (P4) These reactions take place in the _____ of the _____

- 10) (P5) In order to continue, electrons must be replaced. This is done by splitting _____ and releasing _____.

- 11) (P6/P10) The Dark Reactions generally occur at the same time as the light reactions because the two form a _____ with each other, because they each use the other's products. In addition the dark reactions use _____ from the air to create _____.

- 12) (P8/P9) The dark reactions or light independent reactions can also be called the _____ because they were discovered by _____ and take place in the _____ of the _____.

Cell Respiration

Krebs Cycle	Calvin Cycle	Hans Krebs	Melvin Calvin	CO ₂	ATP	O ₂
Glycolysis	electron transport chain (ETC)	fermentation	alcoholic	lactic acid	pyruvate	
Glucose	cytoplasm	mitochondria	stroma	oxygen	NADH	NAD ⁺
Aerobic (oxidative)		anaerobic				

- 13) (CR1) Write out the balanced equation for cell respiration including energy.
- 14) (CR2) ATP is created in several places during cell respiration. Initially you gain a net of 2ATP from _____ by splitting glucose. If oxygen is present you also get 2 more ATP from _____ and 30 or more from _____.
- 15) (CR3) Glycolysis takes place in the _____ and creates 2 _____ in addition to the ATP and NADH it makes from splitting _____.
- 16) (CR4) In order to continue glycolysis you must regenerate _____. This is what is used to split molecules apart.
- 17) (CR5) When there is no _____ present the cell must regenerate the _____ needed for glycolysis through the process of _____. This is anaerobic respiration because of this lack.
- 18) (CR6/CR7) There are two types of anaerobic respiration; people use _____ fermentation in their bodies, whereas bacteria and yeast often do _____ fermentation, which provides us with “adult beverages” and things like bread.
- 19) (CR7) When there is _____ present then our cells are able to do aerobic or oxidative respiration. This takes place in the _____ and produces the most energy.
- 20) (CR9) The first step takes place in the _____ of the _____. It was discovered by _____, which is why it’s called the Krebs Cycle (or citric acid cycle). It uses the pyruvate generated in glycolysis to produce _____ which we exhale, along with more NADH and 2 ATP.
- 21) (CR8/CR10) The “money step” (Cause it makes like 30ATP, the currency of the cell), is the _____. This creates the most ATP, but requires _____ at the end of the line to accept the electrons and creates - _____ as a byproduct.

Use your learning target sheet to check all of the targets that you got correct. Highlight the ones you got wrong. Make notes of things that you need to remember on your “cheat sheet” for the test. **Make sure you get your practice test signed below.**

My student completed and corrected this practice test at home before the date of the test.

Parent/Guardian Signature

Date: _____