

YOUR CHALLENGE:

You must quickly answer these puzzles about Chemistry and Energy for Life

Digit Lock Link Below:

https://docs.google.com/forms/d/e/1FAIpQLScDJKheERCb8HolsMnOsXNEIT5-ByPZf8mNSbl_qSnwW6alZw/viewform

Puzzle 1: CH CH CH CH CH CH CH

As you know, **photosynthesis** is the process in which plants (also called _____ or producers) use water and the radiant energy of the sun to create simple sugar (_____) as a food source and oxygen as products of the reaction.

Cellular respiration is the process that takes place in the cells of organisms in which chemical reactions turn sugar (glucose) that we get from food along with oxygen into adenosine triphosphate (_____).

The law of _____ of matter is a fundamental principle of science that states that matter is neither _____ nor destroyed; it simply changes form. During photosynthesis and respiration, the number of atoms in the reactants (the “ingredients” on the left side of the formula) equals the atoms in the products (the things that are given off after the “ingredients” undergo a chemical reaction), on the right side of the formula.

— — — — — — — — —

— — — — — — —

— —

— — — — — — — — — — —

— — — — — — —

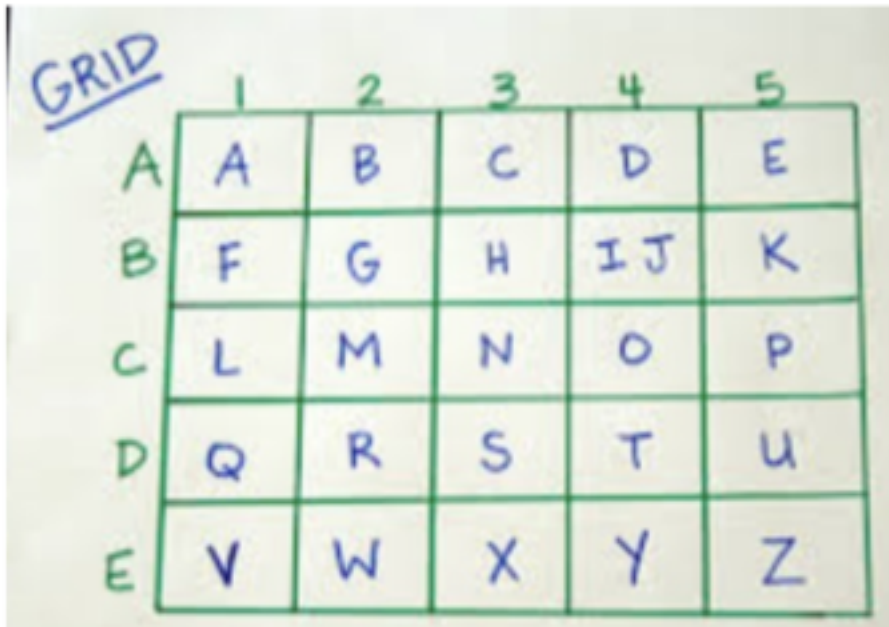
Puzzle 2:

1 Glucose	Carbohydrates	2 Amino Acids
3 Amino Acids	Proteins	4 Glucose
5 Nucleotides	Nucleic Acids	6 Mononucleos
7 Cell Membrane	Lipids	8 Mitochondrion
1 Biological catalysts	Enzymes	2 Inorganic

Puzzle 3:

A5 C3 E5 E4 C2 A5 D2 A5 C1 A1 D4 A5 A4 E2 C4 D2 A4 D3.

C3 D5 C2 A2 A5 D2 D3 D3 C2 A1 C1 C1 D4 C4 C1 A1 D2 B2 A5.



3 Substrate	2 Active Site	5 Lipids
6 pH/Temperature	1 Anaerobic	4 Lock and Key

Puzzle 4:

Photosynthesis: $6 \text{ CO} \underline{\hspace{1cm}} + 6 \text{ H}_2\text{O} \rightarrow \text{C} \underline{\hspace{1cm}} \text{H}_{12}\text{O}_6 + 6 \text{ O}_2$

Respiration: $\text{C}_6\text{H} \underline{\hspace{1cm}} \text{O}_6 + 6 \text{ O}_2 \rightarrow 6 \text{ CO}_2 + 6 \text{ H} \underline{\hspace{1cm}} \text{O}$

Puzzle 5:

CALISSFY AS PHOTOSNYTHESIS OR RESPIARTINO.
PTTAREN RVEELAS CDOE.

A. Photosynthesis	B. Respiration

Chloroplast 30

Produce glucose 40

Autotroph and heterotroph 5

Produce ATP 20

Autotroph only 10

Mitochondrion 10

Puzzle 6:

MISSING

SET TO JE

OFHYNH FHNI

FSFJXWTGNH



Puzzle 7:

A	B	C
D	E	F
G	H	I

J	K	L
M	N	O
P	Q	R

~~S
T U
V~~

~~W
X Y
Z~~

כבא כבא כבא

לולללללל @

קא...

Puzzle 8:



Enzymes are proteins that serve as biological _____ for life processes; both aiding in the assembly of materials and in the breaking down of materials. Enzymes have a specific _____ that enables them to fulfil their role, if they lose their specific shape (or become _____) they are no longer able to do their job efficiently, or at all.

1. _ _ _ _ _ _

2. _ _ _

3. _ _ _ _ _ _