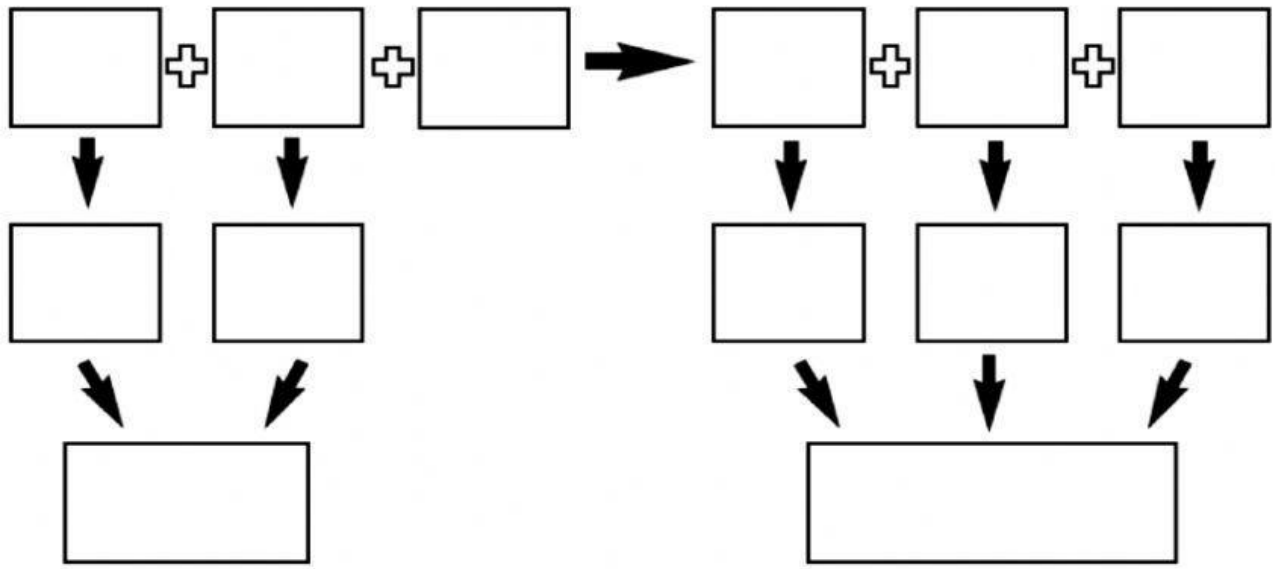
PHOTOSYNTHESIS

MSc. Boris Guerra R

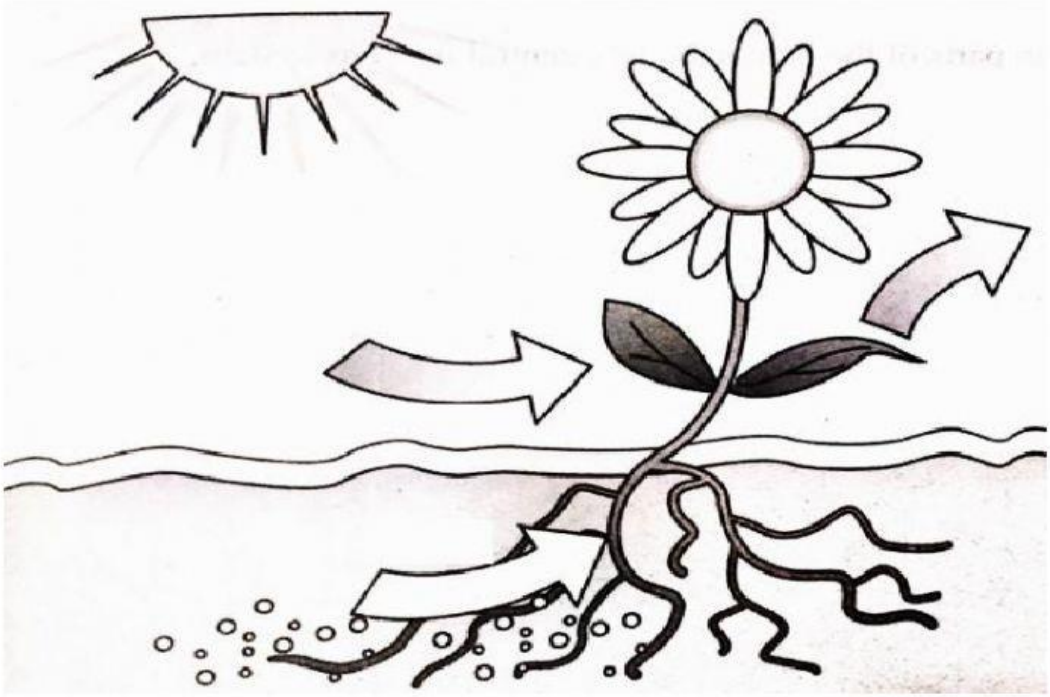
NAME:..... ..... COURSE:..... Date: .....

I. DRAG AND DROP THE CORRECT COMPONENTS AND REACTANTS TO FILL IN THE EQUATION FOR PHOTOSYNTHESIS.



GLUCOSE	PRODUCTS	$C_6H_{12}O_6$	LIGHT ENERGY	$6H_2O$	$6CO_2$	WATER
$12H_2O$	CARBON DIOXIDE	REACTANTS	OXYGEN	$6O_2$	WATER	

II. LABEL THE PICTURE COMPLETE THE PROCESS FOR THE PHOTOSYNTHEIS



LIVEWORKSHEETS

Hidden Message Word Search

Find each of the vocabulary words listed below in the puzzle. They may be across, up and down, backwards or diagonal. Circle or cross out each word. When you're finished finding all of the words, look carefully at the first three rows of the puzzle. Write the letters that remain in these rows in the spaces below the puzzle. Make sure to copy them in the exact order that they appear. This will reveal the hidden message.

ATP
AUTOTROPH
BACTERIA
CALVIN-BENSON
CARBON
CAROTENOIDS
CHLOROPLAST

CHLOROPHYLL
GRANUM
HETEROTROPH
MESOPHYLL
PHOTONS
PHOTOSYNTHESIS
PROTISTS

STOMA
STROMA
THYLAKOID
TRANSPIRATION

P	H	O	T	O	N	L	S	Y	S	N	T	H	S	L	E	S	I	S	T
H	E	L	P	S	O	M	L	A	I	T	N	I	L	T	A	I	N	N	S
A	T	U	D	R	I	E	S	Y	B	A	S	Y	L	A	N	C	E	V	A
W	N	N	I	L	T	U	R	O	H	E	H	I	Z	J	N	M	A	N	L
P	T	A	O	G	A	G	R	X	H	P	M	Q	T	E	T	G	A	O	P
B	K	Q	K	X	R	G	I	T	O	U	O	A	M	O	R	T	S	B	O
S	P	E	A	J	I	M	N	S	N	S	G	R	C	R	R	F	X	R	R
N	G	H	L	M	P	Y	E	A	A	D	F	H	O	W	A	P	J	A	O
O	S	K	Y	E	S	M	R	V	U	B	Y	S	A	L	B	A	C	C	L
T	I	R	H	O	N	G	N	C	A	R	O	T	E	N	H	I	D	S	H
O	R	S	T	O	A	D	K	C	S	T	O	M	A	Z	H	C	S	Z	C
H	A	O	R	D	R	M	T	L	A	R	M	D	H	D	P	P	C	E	D
P	H	Z	H	E	T	E	R	O	T	R	O	P	H	B	O	D	P	U	I
P	O	Y	I	L	R	K	Y	R	I	A	N	W	K	D	R	I	I	P	D
X	A	I	T	I	Y	P	Z	W	Q	V	P	M	R	H	T	Q	E	C	K
S	R	O	A	P	R	G	P	C	A	R	O	T	E	N	O	I	D	S	W
N	O	S	N	E	B	N	I	V	L	A	C	M	I	W	T	J	D	W	W
U	Y	T	S	Y	V	G	T	L	O	S	Z	G	T	H	U	Z	L	Y	U
I	B	K	W	D	P	E	L	W	K	X	D	N	M	D	A	M	T	K	O
S	S	U	B	M	P	O	H	H	B	Z	F	L	D	J	E	E	F	R	D

Message: ______________ ______

__________ _________ _________

LIVEWORKSHEETS

IV. MATCH THE FOLLOWING COLUMNS, READ CAREFULLY.

What is the overall reaction for photosynthesis?	The sun
How does the overall reaction to photosynthesis compare to the overall reaction for cellular respiration?	To create glucose
Where does the energy for photosynthesis come from?	Clorophyll a Carotenoids Xanthophyls Chlorophyl b
What plant pigments are involved in photosynthesis?	Since cellular respiration starts off with glucose and ends with ATP, they are opposites
Explain why chlorophyll appears green to us in terms of what happens to different wavelengths of light that strike a chlorophyll molecule.	As the wavelength increases the amount of energy decreases
How does the amount of energy in light change as the wavelength increases.	Chlorophyll is not good at absorbing green wavelengths so instead it reflects them

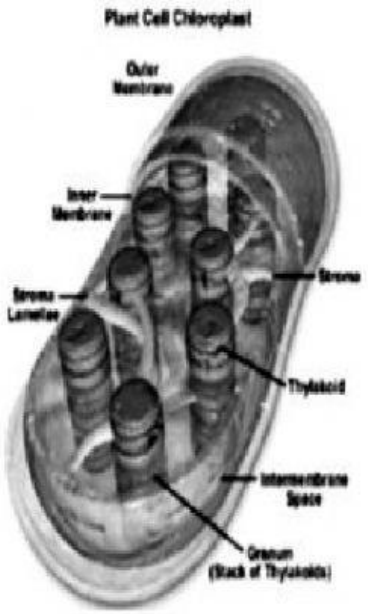
LIVEWORKSHEETS

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V. COMPLETE THE FOLLOWING PARAGRAPH, USE THE WORDS BELOW.

Chloroplasts

_____ is a process in which sunlight energy is used to make _____The site of photosynthesis is in the _____- an organelle found in the _____of green plants. The main functions of chloroplasts are to produce food (**glucose**) during **photosynthesis**, and to store food _____Chloroplasts contain the_____ *chlorophyll*. Chlorophyll absorbs most of the colors in the color spectrum, and reflects only green and yellow _____ of light. This is why we see leaves as green or yellow - because these colors are reflected into our eyes.



chloroplast	Photosynthesis	glucose.	leaves	energy.	pigment,	wavelengths

VI. ANSWER THE FOLLOWING QUESTIONS.

The products are **glucose** and **oxygen**. The glucose produced is used by the plant for energy and growth. We also use this glucose by eating plants. The oxygen produced is released into the air for us to breath. Photosynthesis is essential for all life on earth, because it provides food and oxygen. Plants are considered autotrophs because unlike us humans, they can make their own food using this process.

What is produced in photosynthesis? _____

What is the glucose used for? _____

What is the oxygen used for? _____

LIVEWORKSHEETS