

# TEST TWO

5.6%

"Nothing but A  
Big Bag of  
Chemical Reactions!"

## STEM Cells

Therapy transplant grow

CA allowed before the US govt did

Syrs behind Europe & Asia

Differentiated - "Pre determined to become .."

Undifferentiated - Stem cell - undecided as to what to become.

Totipotent - "totally" can become anything - long lived - easy to grow

Polyipotent - can't become everything - short lived - hard to grow

## Water

Earth has a limited supply

water recycles and purifies

9% of CA econ is Ag.

13% of the US's total Ag

CA produces over ½ of Fruits and Nuts for US.

90% of US Artichokes

All avocados, Almonds

CA = largest Dairy producer

2% of states 1.6 trillion Econ.

25% H<sub>2</sub>O - 5-10% Econ

Cotton deplet<sup>o</sup> Nitrogen and Legs H<sub>2</sub>O.

## Properties of H<sub>2</sub>O

Cohesion sticks together Adhesion sticks to other things.

Good solvent - circulatory system

## ICE FLOATE

### 4 types of Macromolecules

Sugars / Carbohydrates - FUEL

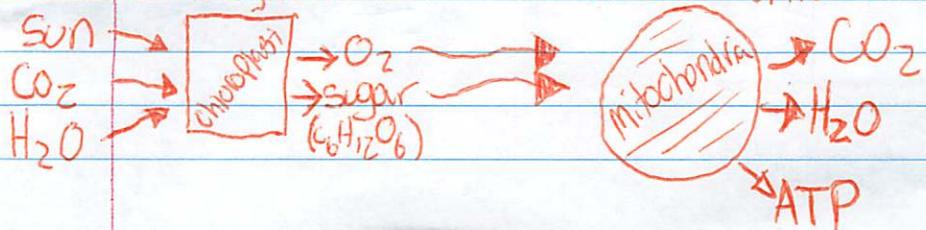
Lipids / Fats and Oils - LONG TERM storage

Amino Acids / Protein - Body Building Molecule

Nucleic Acid / DNA - Determines EVERYTHING About you.

## Photosynthesis

## Cellular Respiration



OSE - is sugar

ase - breaks Sugar

## Organelles

Mitochondria - Burns sugar to ATP - Power Plant of Cell

Cell Membrane - Maintains homeostasis, protects cell

Chloroplasts - Turn light to Energy (Photosynthesis)

Nucleus - Holds DNA ~ in charge of cell

Ribosome - Protein factory

Smooth ER - Stores Lipids

Lysosome - digests (engulfs) food

Golgi Apparatus - modifies proteins

## Video Lab

Rewatch the ~~Life~~ Life's Greatest Gift video on NOVA.

Know how Sperm and Egg meet.

Go over "long questions".

1,000 Sperm A Second