

## REVIEW: Cellular Respiration

Cellular Respiration IS AEROBIC Respiration

It happens in



**AUTOTROPHS**

Autotrophs MAKE GLUCOSE  
(photosynthesis)



**HETEROTROPHS**

Heterotrophs EAT FOOD to get  
GLUCOSE

They GET ENERGY when they BREAK THE BONDS in the GLUCOSE

Site of Cellular Respiration is the MITOCHONDRIA



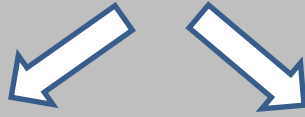
**"POWER PLANT"**  
of the cell

Remember: The **"MIGHTY MITOCHONDRIA"**!

Have the **MOST MITOCHONDRIA**



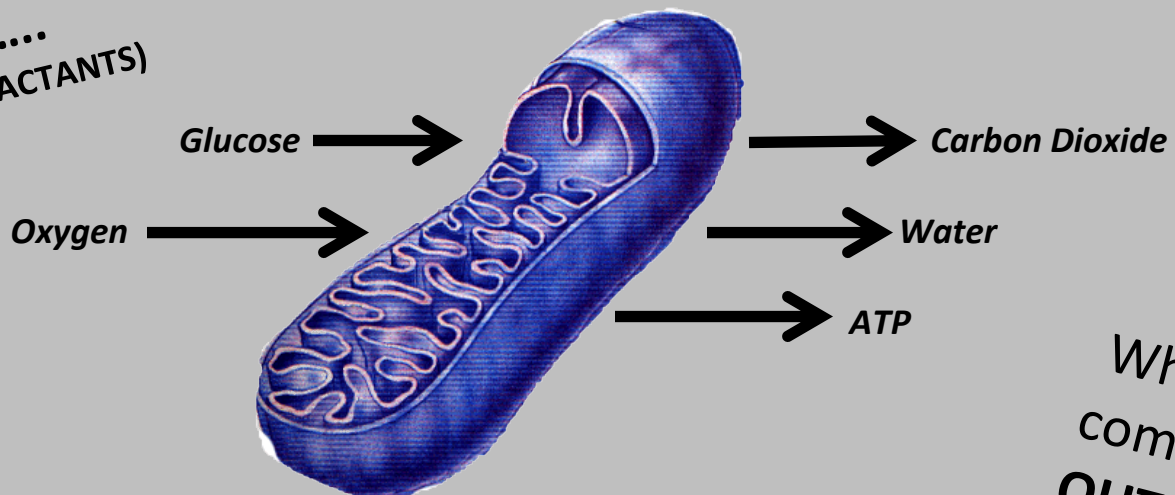
*Brain*



*Muscles*

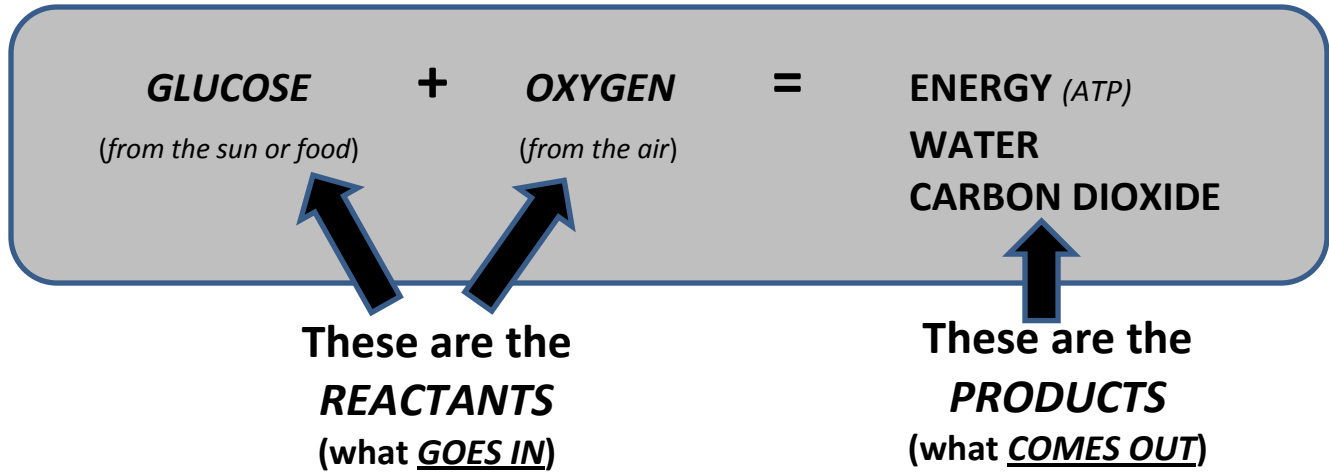
What  
goes  
**IN.....**  
(REACTANTS)

*The Mitochondria*



What  
comes  
**OUT.....**  
(PRODUCTS)

## Cellular Respiration

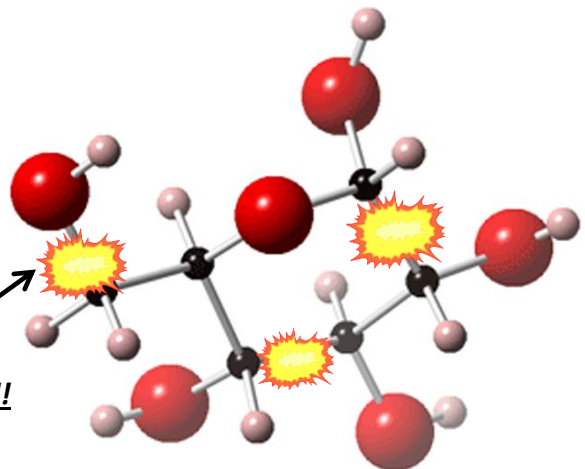


### ATP is USABLE ENERGY!



It comes from the BREAKING of BONDS!

Energy is released!



## **Aerobic** Respiration (Cellular Respiration)

- ✓ NEEDS OXYGEN
- ✓ Makes a lot of ATP
- ✓ Very EFFICIENT
- ✓ in MITOCHONDRIA



## **Anaerobic** Respiration (Fermentation)

- ✓ NO OXYGEN needed
- ✓ Makes a little ATP
- ✓ Less EFFICIENT
- ✓ in CYTOPLASM



## 2 Types of Anaerobic Respiration

### **Alcohol Fermentation**

- ✓ uses GLUCOSE to make ATP
- ✓ produces ALCOHOL & CARBON DIOXIDE



### **Lactic Acid Fermentation**

- ✓ uses GLUCOSE to make ATP
- ✓ produces LACTIC ACID

Makes your  
muscles sore when  
you work out!

