

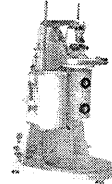
Cellular Respiration, Chapter 9, Pages 220-232

Objectives: Students will

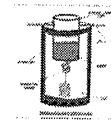
- A) Define calorie
- B) Relate glucose to ATP
- C) Define respiration and write the chemical formula
- D) Summarize the location, reactants and products of the three stages of respiration
- E) Summarize what happens when there is a lack of oxygen
- F) Summarize how energy is used in the short term and the long term
- G) Compare respiration to PSN

A) Define calorie
Why do we eat?

- Raw materials for cell _____
- _____



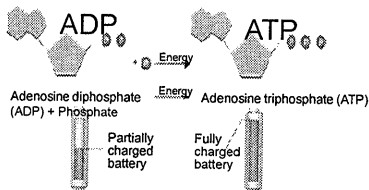
What represents energy in food?



_____ = unit of _____
in food, measured as _____
_____ = determines _____
in food

B) Relate glucose to ATP

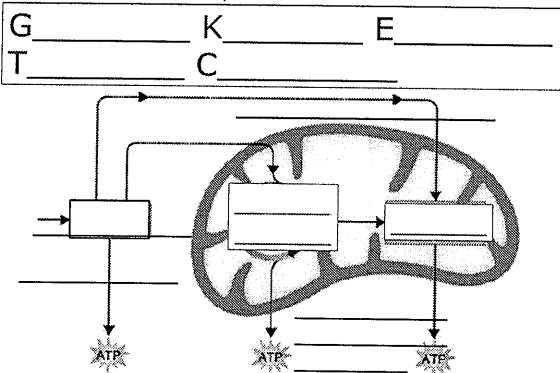
- _____ = food energy source
- _____ = chemical energy our cells use
- _____ becomes _____ = _____



C) Define respiration and write the chemical formula
Cellular respiration

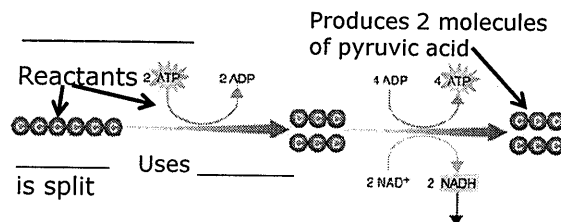
- Releases _____ by breaking down _____ in the presence of _____
- _____ process, takes _____
- Chemical Equation
_____ + _____ + _____ → _____ + _____ + _____
- Word Equation
_____ + _____ → _____ + _____ + _____

D) Summarize the **location**, reactants and products of the three stages of respiration



D) Summarize the location, reactants and products of the three stages of respiration

Where?

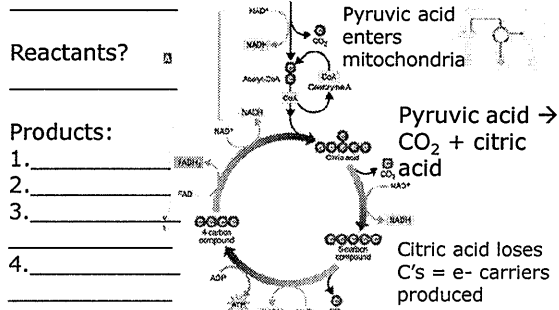


Products (3 of them):

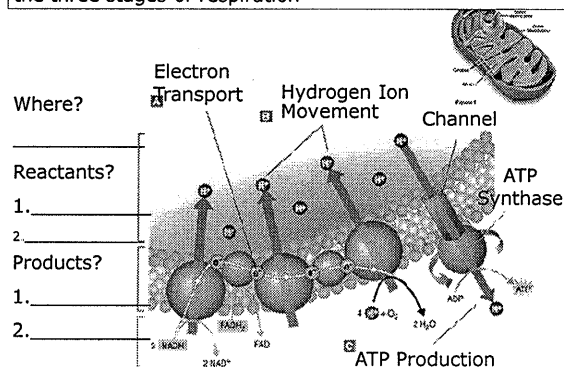
1. _____
2. _____
3. _____

D) Summarize the location, reactants and products of the three stages of respiration

Where? Krebs Cycle : AKA _____

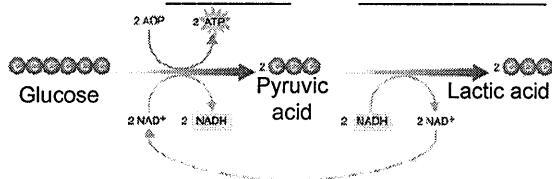


D) Summarize the location, reactants and products of the three stages of respiration



E) Summarize what happens when there is a lack of oxygen

_____ Fermentation = instead of _____ after _____



Products: _____

1. _____

2. _____

Where? _____

F) Summarize how energy is used in the short term and the long term

- _____ Energy = intense exercise
- First few seconds = _____
- After this, _____ = ~ 90 s.



- _____ Energy
- _____ (15-20 min.)
- After this, stored _____ (_____) is burned



D) Compare respiration and PSN

PHOTOSYNTHESIS

Make _____

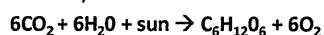
Give off _____

Use _____ as

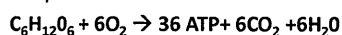
Use _____

Use _____

Photosynthesis



Respiration



_____ for PSN = _____ of Resp.

_____ of Resp. = _____ of PSN

RESPIRATION

Break apart _____

Use _____

Make _____

Give off _____

Answer the following questions from the video or your notes:

1. What is the formula of respiration?
2. List the three steps of respiration
3. How much total ATP is produced from respiration?
4. Why do gym trainers encourage individuals to work out for a minimum of 20 minutes?

C) Summarize the three stages of cellular respiration

