

Energy



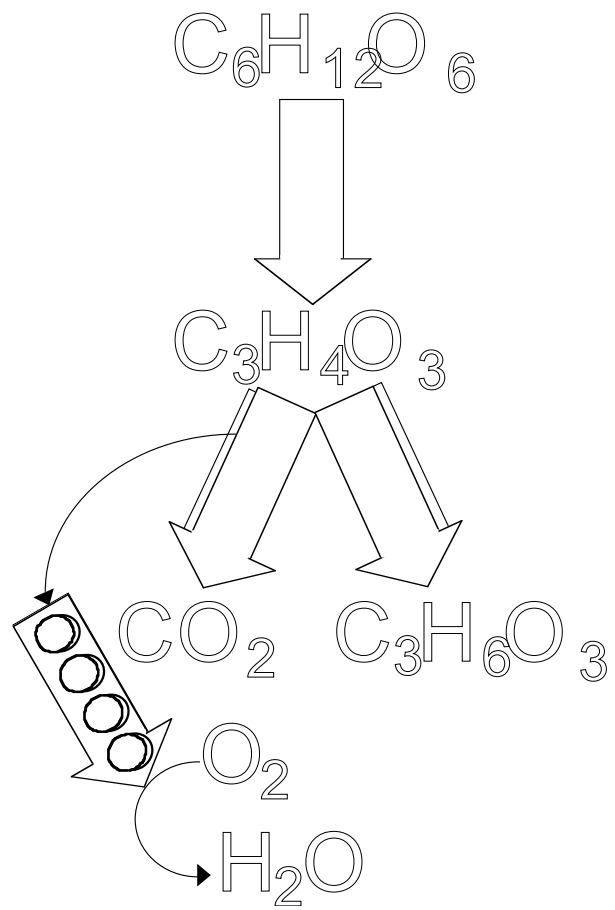
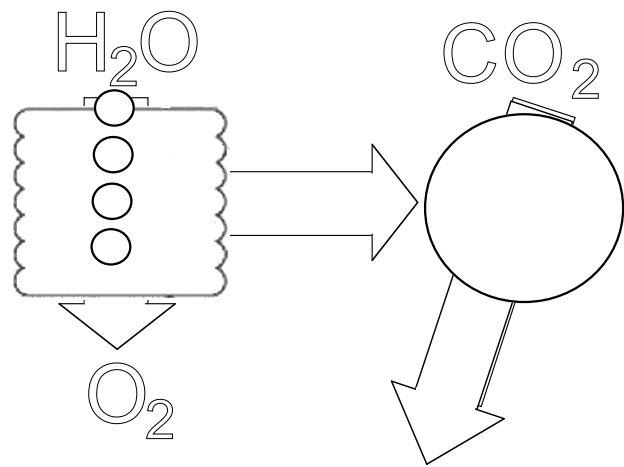
Remember to **practice** with the study questions on the BIOL 101 web site and remember to take the wordlist 6 quiz.

Aerobic respiration	Enzyme
Alcohol	Fermentation
Anaerobic respiration	Kilocalorie
Atom	Light-dependent
ATP	reaction
Calorie	Methane
Carbohydrate	Molecule
Chlorophyll	Oxidation
CO ₂ fixation	Photosynthesis
Conservation of Energy	Pyruvic acid
Light-independent reaction	Respiration
Energy	

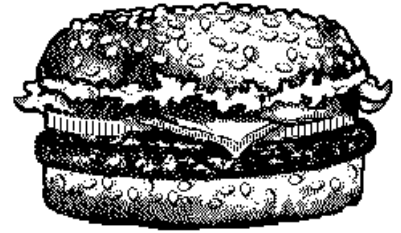
Nutrition Facts	
Serving size: 119 g	
Servings per container: 1	
Amount Per Serving	
Calories 470	Cal. from fat 180
	% Daily Value *
Total Fat 20 g	31%
Saturated Fat 4.5 g	22%
Trans Fat 4.5 g	10%
Cholesterol 30 mg	21%
Sodium 510 mg	23%
Total Carbohydrate 68 g	
Dietary Fiber <1 g	4%
Sugars 44 g	8%
Protein 4 g	
Vitamin A 0% • Vitamin C 0% Calcium 2% • Iron 8%	
*Percent Daily Values is based on a 2,000 Calories diet. Your daily values may be higher or lower depending on your caloric needs.	
Calories per gram Fat 9 • Carbohydrate 4 • Protein 4	

Questions:

- One-tenth of a Life Saver[®] was burned in a calorimeter to raise the temperature of 100 g of water 10°C. Calculate the number of calories in the Life Saver[®].
- Differentiate between the following pairs:
 fermentation and respiration
 aerobic respiration and anaerobic respiration
- Trace the flow of energy from sunlight through consumers to microorganisms.
- How does ATP store and release energy? Should you be taking ATP pills?
- The nutrition label is from a vending machine snack. Is this a good snack?
- Using the metabolic pathways on the next page:
 - Color the carbon and oxygen atoms showing their flow through metabolism.
 - Identify the energy-using and energy-generating pathways.
 - Which pathways are used by animals? Which by plants and algae?



Menu à la BIOL 101



Macromolecule	Enzyme	Product	Location	To blood as	Use
Carbohydrates Starch					
Lactose					
Lipids					
Protein					