

Fermentation

Name _____

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1. What are the two processes used by organisms to get energy from carbohydrates (glucose)?
2. Respiration uses oxygen to break down glucose into two waste products, _____ and _____. Is there energy available in either of these products? (In other words, can you burn them?) _____
3. Fermentation breaks down glucose without using oxygen. One by-product of yeast fermentation is alcohol. Is there energy available in alcohol? _____ So which process gets the most energy out of glucose, respiration or fermentation? _____
How do you know?
4. When do our muscles use fermentation to get energy?
5. When our muscles use fermentation, what are the two by-products produced?
6. Some bacteria use fermentation to get energy out of sugar, releasing lactic acid as a by-product. We use this process for the production of what food products?
7. Yeast uses fermentation to break down glucose into what two by-products?
_____ and _____
8. We use yeast fermentation to produce various food products. List two food products we make using the by-products of yeast fermentation and tell which one of the by-products are used to make each food. (Hint: One food product is listed in your book; the other one is not. Use your head.)
9. Explain the importance of what is happening in the diagram (Figure 16) on page 85.