

## 2.2 Quiz Review

### 2.2.1 - Food Labels

- Know the basics here. Which nutrients should a person limit in order to stay healthy?  
What nutrients should a person make sure they have lots of?

### 2.2.2 - The Biochemistry of Food

Most of the quiz will be over this activity.

- What is the meaning of the term Dehydration Synthesis? What is its function in a cell?
- What is the meaning of the term Hydrolysis? What is its function in a cell.
- What is a polymer?
- What is a monomer?
- **Carbohydrates**
  - What is the main function of a carbohydrate in the cell?
  - What are the monomers of a carbohydrate? Sketch one below. (Don't draw out the whole chemical structure. Just know it well enough you could recognize it.)
  - What is a disaccharide? How are they formed?
  - What is a polysaccharide? How are they formed? What is their function?
- **Lipids**
  - What are the functions of lipids? Which one is the most important?
  - What are all lipids made of?
  - What is a neutral fat? What is its function?
  - What is a saturated fat? Sketch a short one.
  - What is an unsaturated fat?
    - What is the difference between poly- and monounsaturated fats?
  - Why are lipids great for forming membranes?
    - What does the term "hydrophilic" mean?
    - What does the term "hydrophobic" mean?
  - What is cholesterol? What super important class of molecules does it belong to?  
(Hint: The answer is not, "lipids".)
- **Proteins**
  - What are some of the functions of proteins?
  - What are the monomers of a protein?
  - What determines the function of a protein?
  - What makes one amino acid different from the next?
  - How many amino acids exist?
  - What are the four levels of protein structure? Describe each one.

### **2.2.3 - Food Testing**

- Understand the following tests and what molecules they're used to identify. Know what a positive result looks like, and what a negative result looks like.
  - Benedict's Reagent
  - Lugol's Iodine
  - Biurets Solution
  - Brown Paper Test

### **2.2.4 - How Much Energy Is In Food?**

- Be able to describe a calorie and what it is.
- Understand the difference between a Calorie and a calorie.
- Be able to use and manipulate the following equations.
  - Depending on the situation in the test question, you could be asked to use any/all of these. Remember, you will always be given ALL the information you need in the question.

**Energy gained by H<sub>2</sub>O = (mass of H<sub>2</sub>O) x (change in temperature)**

**Food Calories - (chem calories) ÷ (1000)**

**Calories/Gram = (Food Calories) ÷ (change in mass of food)**