

STUDY GUIDE CHAPTER 3

1. There will be 15 multiple choice questions based on the following topics:
 - proteins, lipids, and carbohydrates ** (lots of questions with lots of details)
 - oil and water
2. Know terms such as:
 - organic - polar - water-soluble - saturated
 - inorganic - non-polar - not water-soluble - unsaturated
3. Know all about carbohydrates!
 - monosaccharide, disaccharide, polysaccharide (definitions and diagrams)
 - know the chemical formula for glucose (and for carbs in general)
 - be able to draw the glucose diagram from memory
 - know the examples of carbohydrates:
glucose, sucrose, lactose, fructose, cellulose, glycogen, starch, chitin
4. Know all about lipids!
 - know the definitions of triglyceride, phospholipids, and steroids
 - be able to identify the diagrams: triglyceride, phospholipids, steroid, fatty acid
 - know the examples of lipids:
animal fat, vegetable oils, adipose, cell membrane, cholesterol, sex hormones
 - know the difference between saturated and unsaturated fatty acids
5. Know all about proteins!
 - identify the diagram of an amino acid (know the parts of the amino acid)
 - know the 8 types of proteins: hormonal, receptor, contractile, structural, enzymes, antibodies, storage, transport
 - be able to write an essay about all 4 levels of protein structure
 - be able to draw diagrams of all 4 levels of protein structure
 - know how to determine if an "R" group is polar or non-polar
6. Know all about dehydration synthesis and hydrolysis reactions!
 - draw 2 small molecules joining together to form a larger molecule
 - draw a large molecule splitting into 2 smaller molecules
 - know what happens to the water molecule in each type of reaction
7. Know all of these pictures (in addition to all of the ones listed above):
 - saturated fatty acid - amino acid
 - unsaturated fatty acid - steroid
 - monosaccharide - phospholipid
 - disaccharide - triglyceride
 - polysaccharide - glycerol
8. Be able to write an essay about your food nutrient lab. Be familiar with all 4 indicators used. Be familiar with the procedure and results of the lab.