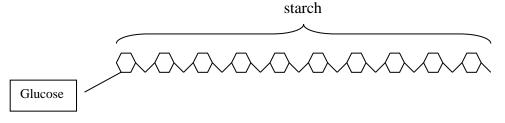
Chemistry of Life Review Sheet

Carbohydrates

- 1. What are the building blocks of carbs? Sugars (glucose)
- 2. What is the difference between a monosaccharide, disaccharide and a polysaccharide? mono - 1 sugar ring, di - 2 sugar rings, poly - more than 2 sugar rings
- 3. What is the relationship between starch and glucose? Use a labelled sketch to help.



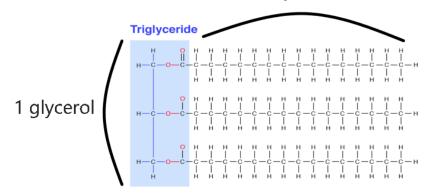
Lipids

 What is a major advantage of lipids on the body? They are the only molecule that can be stored on the bosy in large quantities.
 Fats are important because they can be modified into which 3 important types of molecules? hormones, phospholipids, waxes
 What are fat molecules called?

triglycerides

4. Label the glycerol and the fatty acids in the triglyceride shown.

3 fatty acids



<u>Protein</u>

- 1. Describe 2 functions of proteins.
 - i) muscle cells
 - ii) enzymes
 - iii) cell organelles largely made of protein
 - iv) transport bodily fluid (blood)
 - v) hormones
 - vi) nutrients (food)
 - vii) they guide how genes are expressed
- 2. What are the structural sub-units of proteins? amino acids
- 3. How many different amino acids are there? 20

Nucleic Acid

- 1. What 5 elements are found in nucleic acid? C,H,O,N,P
- 2. What are the building blocks of nucleic acids? Nucleotides
- 3. List the 3 parts of a nucleotide.
 i) 5 carbon "pentose" sugar
 ii) phosphate group
 iii) nitrogen base
- 4. What makes up the backbone of a nucleic acid? Sugar phosphate backbone
- 5. What type of bond forms between the base pairs of adjacent nucleic acids? Hydrogen bonds
- 6. What are the complimentary base pairs for DNA? A with T and C with G
- 7. Label the 3 parts of a nucleotide on the diagram below.

