SI sheet chap 5: Organic molecules

Four types of organic molecules:

1.

2.

3.

4.

How do you form a polymer?

**Carbohydrates:**

What is the molecular formula for a carbohydrate?

What is an aldose? What is a ketose?

How do you form a carbohydrate polymer? What is the bond called?

Can glucose form a ring?

What is the difference between alpha linkage and beta linkage in glucose monomers to form polymers? Give examples of 2 sugar polymers (1 alpha, 1 beta)

What makes chitin special?

Name functions of a carbohydrate

**Lipids:**

Do lipids include polymers? What is the defining characteristic for this class?

How do you form a triglyceride? Draw

What is the difference between a saturated and unsaturated fatty acid?

What type of lipid forms plasma membranes? What makes it special?

What are some characteristics of a steroid? What do they make up?

Proteins:

What is the monomer for a protein? How do you bond them together?

Name some functions of proteins

How can you tell if an amino acid is hydrophobic or hydrophilic?

Describe the structures of proteins:

1.

2.

3,

4.

Change in protein structure causes what? How does one denature a protein?

Draw an amino acid:

Now link it to another amino acid:

Draw a triglyceride

Draw a steroid

Draw a ketose

Draw an aldose

Draw a ring sugar

Draw a carbohydrate with an alpha linkage

Draw a carbohydrate with a beta linkage