

Final Cheat Sheet! 1pt ec

Draw the Structure!

Carboxyl basic structure	Alcohol basic structure	amine basic structure	Amino acid structure
Carboxylic acid structure	Methane	Methonic acid	methanol
Methyl amine	Ethyne	Ethane	Ethonic Acid
Ethanol	Ethyl amine	Ethene	Propane
Propanolic Acid	Propanol	propene	propyne
Butane	Butene	1-butyne	2-butene
isobutane	Pentane	Pentyne	pentene
2-isopentane	Pentanol	Carbohydrate	Lipid structure
Saturated fat		Unsaturated fat	

Questions to know! Use Lecture notes/reading and Some research!

Define hydrocarbon: _____

What replaces hydrogen in: 1. amines: _____ 2. Alcohol _____

3. Carboxylic acids _____ 4. Amines _____ 5. Amino acids _____

What is the backbone in organic chem.? _____

What elements do all organic compounds contain: _____

How many covalent bonds does carbon have: _____ What does covalent mean? _____

What does isomer mean? _____

Organic compounds are formed through what kind of bonds? _____

Biochemicals that store information and help build proteins are called: _____ acid

What is a monomer? _____

What's the difference between saturated & unsaturated? _____

What is a carbohydrate monomer? _____ (hint: plants make it!)

Name a carbohydrates polymer: _____

These have one or more simple sugars bonded together that are used as a source of energy: _____

Bread is considered this type of organic compound: _____

Butter, bacon and ice cream is this type of organic compound: _____

Meat & fish (and even some beans) are considered this type of organic compound: _____

These organic compounds do NOT dissolve in water: _____

The simplest alkane is: _____ The simplest alcohol is: _____

The simplest carboxylic acid is: _____ Simplest amino acid? _____

Ethane has what kind of bond between carbons? _____

Ethyne has what kind of bond? _____

Ethene's bond? _____

Which provides MORE energy fats or carbohydrates? _____

On Line Reading Questions: use pdf on my web page

Vocabulary Work:

Select the correct term to complete the sentences.

- | | | |
|-------------------------|----------------------|---------------------------|
| a. nucleic acid | b. fat | c. carbohydrates |
| d. photosynthesis | e. unsaturated | f. proteins |
| g. cellular respiration | h. organic chemistry | i. partially hydrogenated |
| j. catalyst | k. protein synthesis | L. nitrogen bases |
| m. amino acids | n. mutations | o. enzymes |

Section 11.1

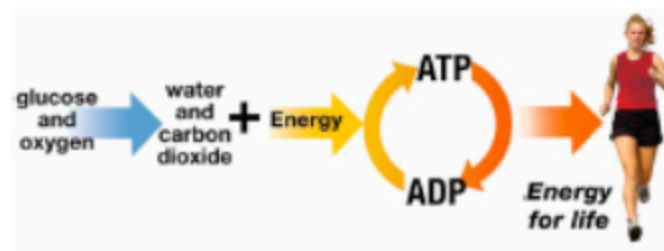
1. The branch of chemistry that specializes in carbon and carbon compounds is called _____
2. The chemical energy that supports the food chain on Earth comes from a reaction called _____
3. The reaction that breaks down glucose and releases its stored energy is called _____
4. Sugars and starches are classified as _____
5. DNA is an example of a(n) _____

Section 11.2

6. High-energy _____ molecules are used to store energy in reserve.
7. _____ are made up of amino acids.
8. When a fat molecule has two hydrogen atoms bonded to each carbon atom, it is called a _____ fat.
9. When a fat molecule has some carbon atoms double bonded to each other, along with hydrogen atoms, it is called a(n) _____ fat.
10. _____ are organic molecules that are the building blocks of proteins.
11. _____ allow your body to initiate chemical reactions and control the reaction rates.
12. Changes in DNA are called _____.
13. Enzymes are a type of _____ for chemical reactions.
14. The process the cells in your body use to build proteins from amino acids is called _____
15. The molecular components within DNA that contain the code for building proteins from amino acids are _____

Section 11.1 & 11.2 Questions to Answer:

1. Classify these carbohydrates as containing mostly (A) sugar, (B) starch, or (C) cellulose:
a. a stack of firewood__ b. rice__ c. jelly beans __ d. a cotton shirt __ e. an apple __
2. The human body is made mostly of:
a. carbon, oxygen, nitrogen, and hydrogen.
b. oxygen, calcium, carbon, and hydrogen.
c. hydrogen, iron, nitrogen, and oxygen.
3. Which of the following compounds are organic?
a. nucleic acid b. CH₄ c. H₂O d. hydrochloric acid e. table salt f. sugar
4. Identify each of the following as a carbohydrate, fat, protein, or nucleic acid.
a. glucose b. DNA c. cholesterol d. cellulose e. olive oil
5. About how many different amino acids are found in animal proteins?
a. 2 b. 4 c. 20
6. What process does the diagram illustrate? _____



7. Which of the following is NOT part of the process for the body to get the essential proteins it needs?
a. protein synthesis
b. digestion of food protein into amino acids
c. the manufacturing of amino acids from fats
8. Of the four nitrogen base pairs, adenine always pairs with:
a. adenine b. guanine c. thymine d. cytosine
9. The diagram shows an enzyme and three different molecules.
Which of the three molecules would this enzyme target for a reaction?

