

Name: _____

Due Date: _____

Unit 2 Project: Organic Molecules

Your Task:

You must choose from the list of organic compounds, or choose one on your own that is teacher-approved. You will research and write a report on the compound (see criteria below for what should be in the report) and build a model of the compound.

The Report: In the report, you must include the following.

1. A title page
2. A drawing of the structure of the molecule. If you use a picture, make sure you source it!
3. The IUPAC name of the molecule and/or other names given to it.
4. The functional groups present.
5. Where and how this molecule is used.
6. Where the molecule is found in nature, sources of the molecule and how it is isolated/extracted for its uses. If the molecule is synthetic, how is it formed and in what processes?
7. Explain how the molecule functions in nature. What it does do in the body/in nature? Are there any important reactions? If the molecule is synthetic, what are its effects on natural systems? How does it work as a synthetic chemical for its purpose and are there any other effects as a chemical?
8. Describe any health effects or environmental effects associated with the molecule. For molecules found in nature, what are the consequences of having too much or too little in the natural system (eg. your body)? For synthetic molecules, what effects does this synthetic molecule have on the environment or on human health?
9. A bibliography with CSE reference method (see below)
10. Copies of rough work for all websites used

*** CHOOSE RELIABLE WEBSITES FOR SOURCES, NOT YAHOO ANSWERS ETC.***

CSE Reference Method:

Your reference should include the following.

Title of homepage [Internet]. Date of publication. Edition. Place of publication: Publisher; [updated date; cited date]. Available from: URL

Example:

PDRHealth [Internet]. c2010. Montvale, NJ: PDRHealth; [cited 2011 Jan 24]. Available from: <http://www.pdrhealth.com/>

The Model:

You must make a model of the molecule from the Styrofoam balls and sticks (available from the dollar store) or by showing a drawing of the molecule on poster size paper. Alternatively, if you download ChemDraw, you can create a computer generated model.

This model must :

- be accurate in structure and shape to the actual molecule
- have colour coded atoms (eg. carbon is black, hydrogen is red etc.)
- be sturdy and neat

Suggestions of Molecules:

vitamin A, vitamin C, vitamin E, taurine, DEET, cholesterol, testosterone, terpene, estrogen, phenylalanine, nicotine, benzene, caffeine, acetylsalicylic acid, morphine, BPA, melatonin, vanillin, limonene, phenol, TNT, nitroglycerine

Name: _____

Due Date: _____

Rough Notes

Title of website:	
Place of publication:	Publisher:
Date of publication:	Date of last update:
Date you accessed the information (date cited):	
URL (web address) of the site:	
Information Used from the Site: (Use the reverse if necessary)	

Name: _____

Due Date: _____

Rubric for Marking

Names: _____

Due Date: _____

Molecule: _____

Date Submitted: _____

CATEGORY	Level 4	Level 3	Level 2	Level 1
Organization and Mechanics	-----5----- Information is very organized with well-constructed paragraphs and subheadings. Title page is included and in proper form.	-----4----- Information is organized with well-constructed paragraphs. Title page is included	-----3----- Information is organized, but paragraphs are not well-constructed. Subheadings are inconsistent or missing. Title page is included without proper form.	-----2----- The information appears to be disorganized. No subheadings are present or title page present.
Accuracy of Structure, Names and Functional Groups	-----5----- All information is included and correct	-----4----- All information is included with one error.	-----3----- Most information is included with one or more errors.	-----2----- Some information included with many errors.
Amount of information	-----5----- All questions were addressed (#5-8 in the handout).	-----4----- Most questions were addressed (#5-8 in the handout).	-----3----- Some questions were addressed (#5-8 in the handout).	-----2----- Few questions were addressed (#5-8 in the handout).
Depth and Communication of Information	15 -----14 Information presented goes beyond the scope of the course. Content is well explained and easily understood by classmates.	13 -----12 Information presented is an appropriate depth for the course. Content is explained so it can be understood by classmates.	11 -----10 Information presented is below course level and not completed with depth. Content is not easily understood.	9 -----8 Information presented is superficial and has limited depth. Content is brief and may or may not be easily understood.
Rough Notes	-----2----- All rough notes were included.		-----1----- Not all rough notes were included.	-----0----- No rough notes included.
Model – accuracy and colour	10 -----9 Model is accurate dimensions and extremely neat. Colour is used consistently to depict atoms and follows conventional colours for atoms.	8 -----7 Model is accurate with atoms connected at the correct angles. Colour is used consistently to depict atoms.	-----6----- Model is mostly accurate but some atoms are connected at wrong angles. Colour is used to depict atoms.	-----5----- Model does not show the correct structure or angles for this molecule. Colour is not used or used incorrectly.
Model – quality of construction	-----2----- Model is well-built and stays together well despite handling.		-----1----- Model stays together when handled.	-----0----- Model falls apart easily.
Sources	-----2----- All sources (information and graphics) are included in the correct format.		-----1----- Not all sources included and format is not correct.	-----0----- No sources included.
Comments:				
Total Marks:				/46