**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Unit 12: Organic Chemistry Period\_\_\_\_\_\_\_\_**

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| **\_\_\_\_\_12. I can define organic compound, saturated hydrocarbon, unsaturated hydrocarbon, and isomer.** | **Definitions:**  organic compound  saturated hydrocarbon  unsaturated hydrocarbon  isomer |
| **\_\_\_\_\_13. I can expand a condensed structural formula to show the structural formula of an organic compound.** | Draw the complete structural formula for CH3CH2CH2CH2CH3.  Draw the complete structural formula for CH3CHCHCH3. |
| **\_\_\_\_\_14. I can state the name and symbol of the element that is capable of forming rings, chains, and networks.** | The element that is capable of forming rings, chains, and networks is  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Its symbol is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| **\_\_\_\_\_16. Given the formula, I can determine if a compound is a hydrocarbon or not.** |  |
| **\_\_\_\_\_17. Given the name, I can use Reference Table P to determine how many carbons atoms are in a compound.** | Determine how many carbon atoms are in each of the following compounds:  decane\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ethene\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  3-nonene\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  1-pentyne\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **\_\_\_\_\_18. Given the name, I can use Reference Table Q to determine to which class of hydrocarbons a compound belongs.** | Determine the homologous series of hydrocarbons to which each of the following belongs:  decane\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  2-decene\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  1-pentyne\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **\_\_\_\_\_19. Given the name, I can determine if the hydrocarbon is saturated or unsaturated.** | Determine if each of the following is a saturated or unsaturated hydrocarbon.  decane\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ethene\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  1-pentyne\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **\_\_\_\_\_20. Given the formula, I can determine to which homologous series a hydrocarbon belongs.** | Determine the homologous series of hydrocarbons to which each of the following belongs:  belongs to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ series.  belongs to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ series. |
| **\_\_\_\_\_21. Given the formula, I can determine if a hydrocarbon is saturated or unsaturated.** | Determine if each of the following is a saturated or unsaturated hydrocarbon.  C2H2 \_\_\_\_\_\_\_\_\_\_\_ CH3CH3 \_\_\_\_\_\_\_\_\_\_\_\_\_ CH3CH2CH2CH3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **\_\_\_\_\_23. Given a list of compounds, I can determine which ones are isomers.** |  |
| **\_\_\_\_\_24. Given a structural formula, I can use Reference Table R to identify to which class of organic compounds a substance belongs.** |  |
| **\_\_\_\_\_25. I can use Reference Tables P & Q and IUPAC nomenclature to name simple hydrocarbons.** | Name the following hydrocarbons. |
| **\_\_\_\_\_26. I can use Reference Tables P & R and IUPAC nomenclature to name simple compounds in any of the classes of organic compounds.** | Name the following organic compounds. |
| **\_\_\_\_\_27. I can use F-SCAPES to list and describe the 7 types of organic reactions.** | **F** stands for\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This type of organic  reaction results from a reaction of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to form  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It typically requires a catalyst, in the form of an enzyme to occur.  **S** stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This type of organic  reaction happens when \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hydrocarbons  replace one of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for some other element (often a halide).  **C** stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. In this type of organic  reaction a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reacts with  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is an exothermic reaction.  **A** stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. In this type of organic reaction  an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ becomes a  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ when the double bond breaks and two atoms of another element (often a halide) are added. |
| **\_\_\_\_\_27. I can use F-SCAPES to list and describe the 7 types of organic reactions. (continued)** | **P** stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. In this type of organic  reaction many \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are linked together to form a  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. A generalized form of this reaction looks like this…..    **E** stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. In this type of organic  reaction an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reacts with a  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to form an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The products of this reaction are typically fragrant.  **S** stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. In this type of organic  reaction a \_\_\_\_\_\_\_\_\_\_\_\_ reacts with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to form  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. You can really “clean up” if you remember this organic reaction. |
| **\_\_\_\_\_28. Given an equation, I can identify the type of organic reaction that is occurring.** |  |