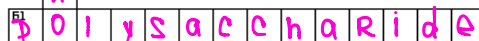


Sheet



Mod

### Across

- ~~3.~~ The process of creating an ester from a reaction involving an alcohol combining with an organic acid in the presence of sulfuric acid
- 6. Another term for sugar
- ~~7.~~ These are often used as artificial flavors and scents
- 12.  $\text{CHBr}_3$
- 14.  $\text{C}_5\text{H}_{10}$
- 15. ten carbons
- 19. Saturated hydrocarbons
- 21.  $\text{C}_2\text{H}_6$
- 23. Aliphatic compounds with at least one triple bond between carbon atoms
- 25. Create saturated, solid lipids
- 28. This attachment indicates an alcohol
- 30. Fatty acids with many double bonds
- 32.  $\text{C}_4\text{H}_6$
- 34. one carbon
- 36. Compounds with the same chemical formulas, but different molecular structures
- 37. This bond attaches amino acids together
- 40. A chain of carbons containing a carboxyl group
- 41. This attached group is  $\text{CH}_3$
- 42. These compounds have benzene rings
- 43. Chain of amino acids
- 46. Found in the nucleus of cells
- 48. This hydrocarbon will have a hydrogen replaced with an atom of a different element
- 50. Compounds containing carbon and hydrogen
- 51. A chain of simple sugars that are bound together

**\*\*You do not need to know the two bold faced clues in the puzzle. Do not rely solely on this study guide. Not all vocabulary terms were put into the crossword puzzle. Use this as a way to supplement the review of your notes! ☺**

### Down

- 1. A small molecule that can be bound into chains creating a large molecule
- 2. Fats, oils and waxes
- 3. Aromatic compounds have this structure (2 words)
- 4. Most organic compounds are not naturally occurring, they are \_\_\_\_.
- 7. Sugars and starches
- 9. This attached group is  $\text{C}_3\text{H}_7$
- 10. DNA
- 11. These are chains of attached nucleotides
- 13. This formula is the most simplified ratio of atoms**
- 16. A simple sugar such as glucose
- 17. A  $\text{COOH}$  group
- 18. Twisted shape of DNA and RNA
- 20. This word refers to compounds containing carbon
- 22. RNA
- 24. Compounds will all single bonds between carbon atoms
- 25. Aliphatic compounds with at least one double bond between carbon atoms
- 26. This formula shows the number of atoms of each element actually in the compound**
- 27. six carbons
- 29. A  $\text{COOH}$  group indicates that the substance is this
- 30. Chains of small molecules
- 31. All organic compounds that do not have benzene rings
- 33. Compounds with one or more double or triple bond between carbons
- 35. This is the result of a hydrogen being replaced by an element from group 17 in a hydrocarbon
- 38. Create unsaturated lipids (liquids and solids)
- 39. three carbons
- 44. two carbons
- 45. four carbons
- 47. These acids have a carboxyl group and an amino group
- 49. nine carbons

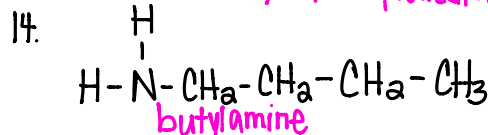
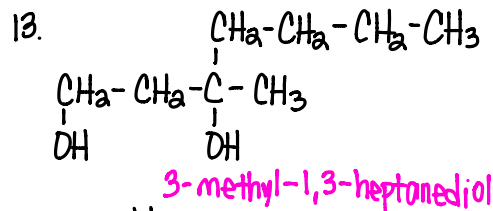
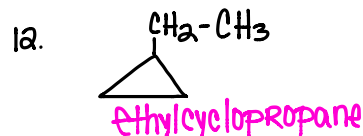
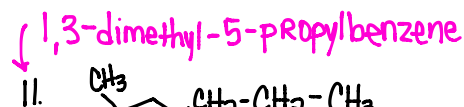
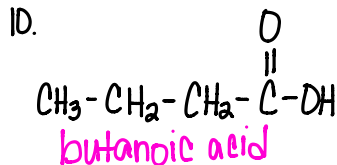
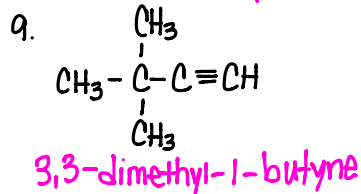
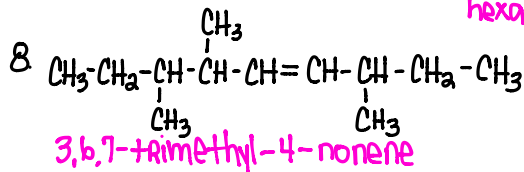
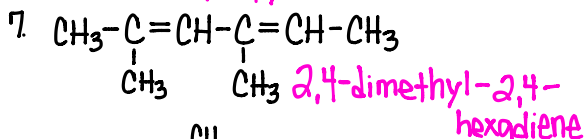
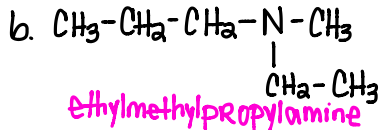
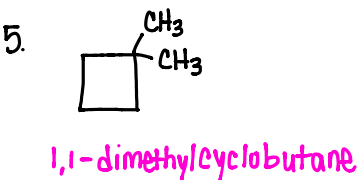
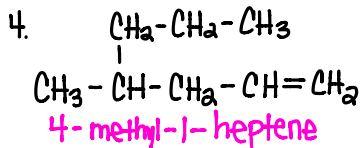
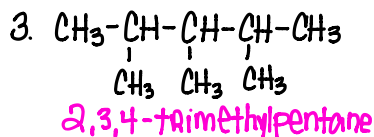
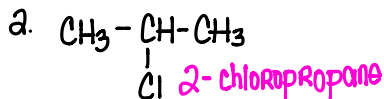
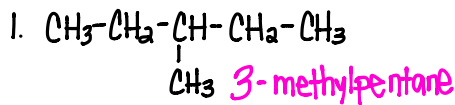
**Draw the following organic molecules:**

- 3-chloro-1,1-dimethylcyclohexane
- 3-hexanol
- 3-ethyl-2,4-dimethyl-3-hexene
- 1,4-dimethylbenzene
- butanoic acid
- 1-bromo-6-iodo-3-methylhexane
- 3-hexyne
- ethylmethylamine

- 1,1,1-tribromo-3,3-diiodobutane
- pentanedioic acid
- ethyldimethylamine
- 1,3,5-pentanetriol
- 1-chloro-1,1,3,3,3-pentafluoropropane
- 6,6-dimethyl-1,4-octadiene
- 1,2,3-butatriene

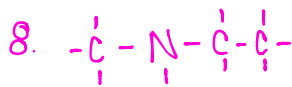
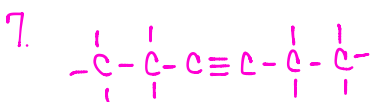
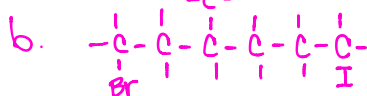
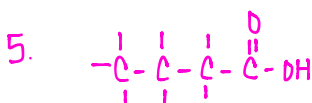
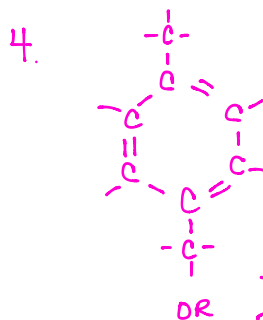
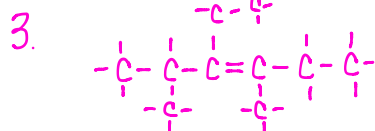
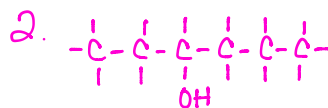
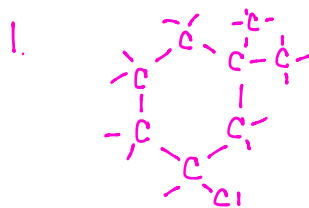
- 3-ethyl-1,1,2,2-tetramethylcyclopentane
- 2,4,6-octatriene
- 1,2-diethylbenzene
- 3,3-diethylpentane
- 1,4-dipropylcyclohexane

**Name the following organic molecules:**

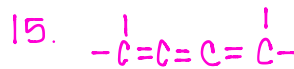
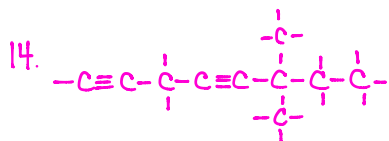
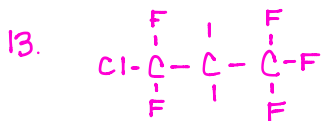
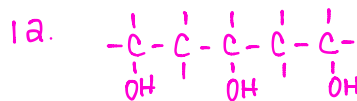
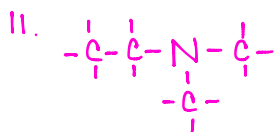
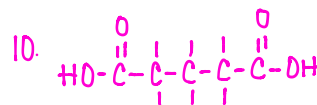
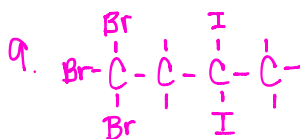


Draw the following organic molecules:

1. 3-chloro-1,1-dimethylcyclohexane
2. 3-hexanol
3. 3-ethyl-2,4-dimethyl-3-hexene
4. 1,4-dimethylbenzene
5. butanoic acid
6. 1-bromo-6-iodo-3-methylhexane
7. 3-hexyne
8. ethylmethylamine



9. 1,1,1-tribromo-3,3-diiodobutane
10. pentanedioic acid
11. ethyldimethylamine
12. 1,3,5-pentanetriol
13. 1-chloro-1,1,3,3,3-pentafluoropropane
14. 6,6-dimethyl-1,4-octadiene
15. 1,2,3-butatriene



16. 3-ethyl-1,1,2,2-tetramethylcyclopentane
17. 2,4,6-octatriene
18. 1,2-diethylbenzene
19. 3,3-diethylpentane
20. 1,4-dipropylcyclohexane

