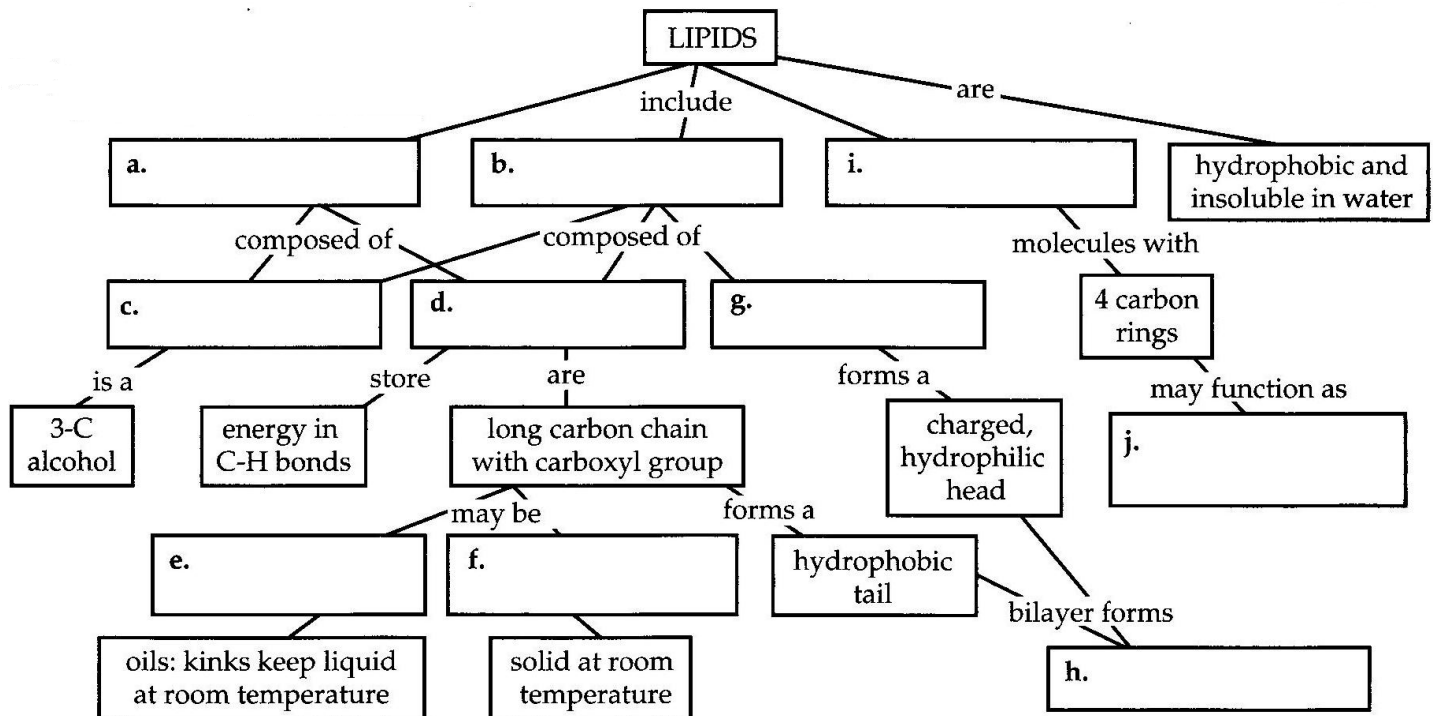


Lipids Review Worksheet

Name: _____

1. What elements do lipids contain?
2. How can you tell a lipid from a carbohydrate from its molecular formula?
3. Draw a molecule of glycerol and circle the –OH (hydroxyl) groups.
4. List three differences between saturated fatty acids and unsaturated fatty acids.
5. How are triglycerides and phospholipids similar? Different?
6. Name two examples of steroids.
7. Complete the equations: _____ fatty acids + _____ glycerol $\rightarrow$ 1 _____ + 3 _____
8. Sketch a hydrocarbon molecule that is a straight chain, containing five carbons atoms and twelve hydrogen atoms, molecular formula C₅H₁₂.
9. Sketch another five-carbon hydrocarbon, but this time include one double bond. What is the molecular formula of this molecule?
10. Sketch a saturated fatty acid chain with only four carbon atoms. What is the molecular formula of this molecule?

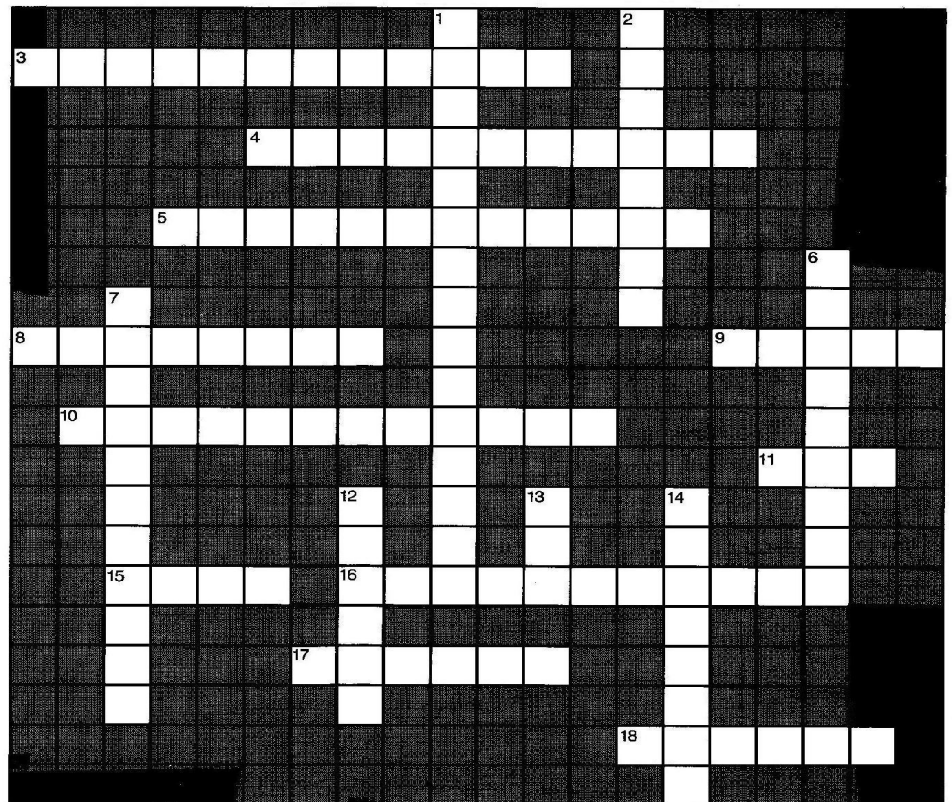
11. Fill in this concept map.



12. Review the structures and functions of lipids by completing the following crossword puzzle. You may not know every term, but do your best!

Across

3. ____ means that hydrogen has been added to unsaturated fats.
4. ____ is a steroid common in cell membranes.
5. A ____ is similar to a fat; found in cell membranes.
8. A fat molecule is composed of ____ and 3 fatty acids.
9. Glycerol and 3 ____ acids make a triglyceride.
10. ____ is another name for "fat."
11. A ____ forms a waterproof coat that keeps a fruit or insect from drying out.
15. Olive and corn ____ are examples of unsaturated fats.
16. Fats with double bonds are said to be ____.
17. ____ is a lipid-containing deposit in a blood vessel.
18. ____ are grouped together because they do not dissolve in water.



Down

1. ____ is when lipid-containing deposits block blood vessels.
2. Female and male sex hormones are examples of ____.
6. Animal fats are said to be ____.
7. Lipids are water-avoiding, or ____ substances.
12. Unsaturated fats contain more ____ bonds than saturated fats.
13. A ____ is a large molecule whose main function is energy storage.
14. ____ steroids are dangerous variants of testosterone.