

What is the characteristic shared by *most* of the lipids?

Lipid True (+) or Lipid False (0)

1. _____ Lipids are hydrophilic.
2. _____ The monomers of lipids are lipoids.
3. _____ Lipids consist mostly of hydrocarbons.
4. _____ Plant oils are lipids.
5. _____ Beeswax is a lipid.
6. _____ Urea is a lipid.
7. _____ Saliva is a lipid.
8. _____ Mucous is a lipid.

Fats

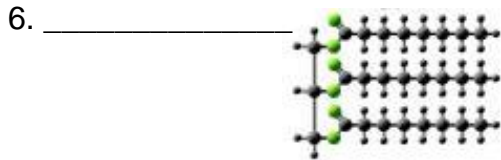
1. _____ The "backbone" of a fat molecule is the alcohol _____.



3. _____ At the (glycerol) end of a fatty acid chain is a _____ group.

4. _____ Are fatty acids *polar* or *non-polar*?

5. _____ Are fatty acids *hydrophilic* or *hydrophobic*?

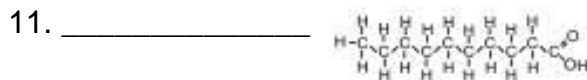


7. _____ The linkage joining a fatty acid and a glycerol is called a(n) _____ linkage.

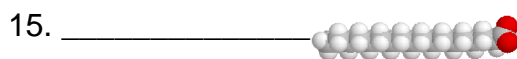
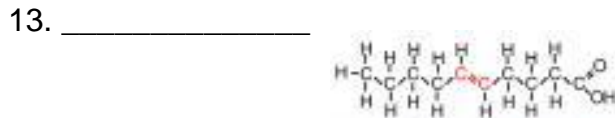
8. _____ The "head" of a triglyceride is a _____ molecule.

9. _____ The three "tails" of a triglyceride are _____ molecules.

10. _____ A fatty acid with no double bonds is called a _____ fatty acid.



12. _____ A fatty acid with a double bond is called an _____ fatty acid.



Saturated (S) and Unsaturated (U) Fatty Acid Matching

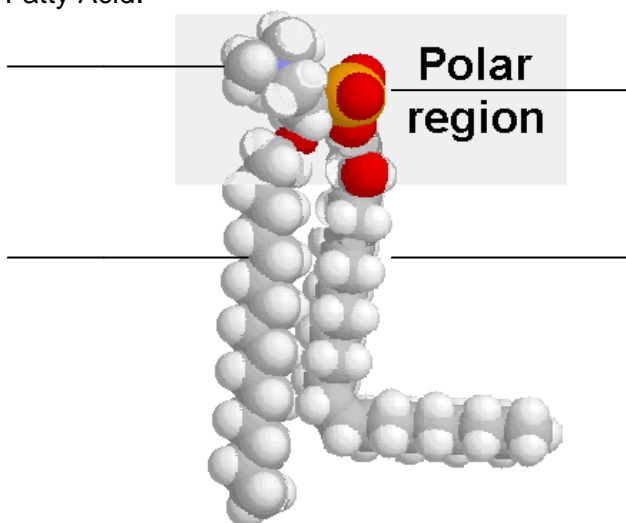
1. _____ More likely to be animal fats.
2. _____ Lack double bonds.
3. _____ Plant oils.
4. _____ Solid at room temperature.
5. _____ Butter
6. _____ Cod liver oil
7. _____ Margarine
8. _____ Fully hydrogenated
9. _____ Possess a "kink" in at least one fatty acid tail.
10. _____ Bear grease
11. _____ Peanut butter
12. _____ More likely to contribute to heart disease.
13. _____ The "oil" in oil-and-vinegar dressing.
14. _____ Whale blubber.

No More Matching

1. _____ Does a "healthy" diet include more *saturated* fats or *unsaturated* fats?
2. _____ Fats typically contain _____ (#) X the Kcal/mole as a similar mass of carbohydrates.
3. _____ Plant oils are most conveniently extracted from the part of the plant called the ____.
4. _____ Human "fat" tissue is given the proper name _____ tissue.

Phospholipids

On the phospholipid molecule shown below, label: Phosphate, Glycerol, Saturated Fatty Acid, Unsaturated Fatty Acid.



1. _____ Are phospholipid "heads" *polar* or *non-polar*?
2. _____ Are phospholipid "heads" *hydrophilic* or *hydrophobic*?
3. _____ Are phospholipid "tails" *polar* or *non-polar*?
4. _____ Are phospholipid "tails" *hydrophilic* or *hydrophobic*?

Time To Draw

In the space provided below, draw a micelle and explain why it is shaped in the way that it is.

In the space provided below, draw a phospholipid bilayer and explain why it is shaped in the way that it is.

What useful functions does *cholesterol* serve in human tissues?

- 1.
- 2.

How can *cholesterol* cause the body harm?

- 1.