1. What do the terms saturated, monounsaturated, and polyunsaturated mean with regard to fatty acids?
If all the bonds between the carbon atoms in a fatty acid chain are single bonds, then the fatty acid is called a saturated fatty acid. A fatty acid with one double bond in the fatty acid chain is a monounsaturated fatty acid (MUFA); one with two or more double bonds is a polyunsaturated fatty acid (PUFA).

2. What does the hardness or softness of a fat typically signify?
The fat's saturation. Typically, the harder a fat is at room temperature, the more saturated it is. Conversely, the softer a fat is at room temperature, the less saturated it is.

3. Name the two essential fatty acids.
Linoleic acid and alpha-linolenic acid

4. What is the most common form of lipid found in food?
Triglycerides. Triglycerides contain a glycerol molecule and 3 fatty acids. These fatty acids can vary in length and saturation.

5. List the many functions of triglycerides.
1. energy source (9 kilocalories per gram)
2. energy reserve (triglycerides in fat cells)
3. insulation and protection (visceral and subcutaneous fat)
4. carrier of fat-soluble compounds
5. contribute sensory qualities to foods

6. What are the positive and negative consequences of hydrogenating a fat?
The positive consequences of hydrogenation include a longer shelf life (protects against oxidation) and an improved texture for the food containing the hydrogenated lipid. The main negative consequence of hydrogenation is that it makes a fat more saturated, and partial hydrogenation creates trans fatty acids. This makes the fat less healthful.

7. Which foods contain cholesterol?
Only foods from animal sources contain cholesterol. Organ meats such as brain and liver contain very high levels. Other sources are egg yolks, meats, and dairy products.

8. Describe the difference between LDL and HDL in terms of cholesterol and protein composition.
LDL contains a high percentage of cholesterol (which makes its density low), while HDL contains a high percentage of protein (making it a higher density).

9. List the recommendations for intake of total fat, saturated fat, and cholesterol.
Total fat: 20-35% of kilocalories
Saturated fat: less than 10% of kilocalories
Cholesterol: less than 300 milligrams per day