Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Unit 4**

**Fats & Oils**

**Fats and Oils**

1. Fat is:
   1. The most \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ source of food energy.
   2. There are \_\_\_\_\_\_\_\_\_\_\_\_ calories in every gram of fat.
   3. We should \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from foods containing a lot of fat.
2. Fats that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are room temperature are called \_\_\_\_\_\_\_\_\_\_.
3. Fats that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or firm at room temperature are called \_\_\_\_\_\_\_\_\_.
4. Cholesterol is:
   1. Cholesterol is \_\_\_\_\_\_\_\_\_\_\_\_\_\_fat.
   2. It is a “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” substance present in all body cells that is needed for many \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ body processes.
   3. It contributes to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the skin’s production of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   4. Adults \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_all the cholesterol they need, mostly in the liver.
   5. All \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_also have the ability to manufacture cholesterol.
5. Cholesterol in Foods:
   1. Because all animals make cholesterol, if you eat any animal product, including \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_, you will be consuming some “extra” or unneeded cholesterol.
   2. Other foods high in cholesterol are:
      * + Egg Yolks
        + Liver / Organ Meats
        + Some Shellfish
6. LDL’s and HDL’s:
   1. A certain amount of cholesterol \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the blood. It does not float through the bloodstream on its own, but in chemical “packages” called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. There are two major kinds of lipoproteins:
      1. \_\_\_\_\_\_\_\_\_\_ (Low-Density Lipoproteins)
      2. \_\_\_\_\_\_\_\_\_\_ (High-Density Lipoproteins)
7. Low-Density Lipoproteins: ***“Losers”***
   1. Takes Cholesterol \_\_\_\_\_\_\_ the \_\_\_\_\_\_ to wherever it is needed in the body.
   2. If too much LDL cholesterol is circulating, the \_\_\_\_\_\_\_\_\_\_\_ amounts of cholesterol can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ walls.
   3. This buildup \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_the risk of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_or \_\_\_\_\_\_\_\_\_.
   4. Thus, LDL cholesterol has come to be known as “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”
8. LDL’s are like the “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”
   1. When LDL’s have too much cholesterol to cart around, it builds up in the arteries and starts to clog them up.
9. High-Density Lipoproteins: “***Heroes***”
   1. Picks up excess cholesterol and takes it \_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_, keeping it from causing harm.
   2. Thus, HDL cholesterol has come to be known as “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”
10. HDL’s are like the “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”
    1. The HDL’s go around and pick up all the excess cholesterol clogging up the arteries and take it back to the liver.
11. For most people, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of fats eaten have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ effect on blood cholesterol than does the cholesterol itself.
12. The fats found in food, such as butter, chicken fat, or corn oil, are made up of different combinations of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
13. Types of Fat:
    1. Fatty acids: **ORGANIC ACID UNITS** that make up fat. There are three types…
       1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. **SATURATED** Fatty Acids:
    1. \_\_\_\_\_\_\_\_\_\_\_\_ HDL’s
    2. \_\_\_\_\_\_\_\_\_\_\_\_ LDL’s

**Food Sources:** Meat/Animal Sources, Poultry Skin, Whole Milk & Dairy Products, Butter, Shortening, \*Tropical Oils

1. **POLYUNSATURATED** Fatty Acids
   1. \_\_\_\_\_\_\_\_\_\_\_\_ HDL’s
   2. \_\_\_\_\_\_\_\_\_\_\_\_ LDL’s

**Food Sources:** Most Vegetable Oils, Corn Oil, Soybean Oil, Safflower Oil

1. **MONOUNSATURATED** Fatty Acids ***“The BEST One To Have!”***
   1. \_\_\_\_\_\_\_\_\_\_\_\_ HDL’s
   2. \_\_\_\_\_\_\_\_\_\_\_\_ LDL’s

**Food Sources**: Olives, Olive Oil, Avocados, Peanuts, Peanut Oil, Canola Oil

1. All fats include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ kinds of fatty acids, but in varying amounts.
2. A Good Rule of Thumb…
   1. Fats that are \_\_\_\_\_\_\_\_\_\_\_ at room temperature are made up mainly of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fatty acids.
   2. Fats that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at room temperature are made up mainly of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fatty acids.
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Is:
   1. The process in which missing **HYDROGEN ATOMS** are added to an unsaturated fat to make it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in texture. (It turns liquid oil into solid shortening.)
   2. This forms a new type of fatty acid called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, (“man-made” fat).
   3. Trans-fatty acids have many of the same properties as \_\_\_\_\_\_\_\_\_\_\_\_\_\_ fats.
4. Visible Fat:
   1. Fat that is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Examples: Butter on a baked potato, layer of fat around a pork chop, etc.
5. Invisible Fat:
   1. Fat that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by the eye
   2. Examples: whole milk, some cheese, egg yolks, nuts, avocados, etc.
6. Functions of Fat:
   1. Carries Vitamins \_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_\_ through the body.
   2. Provides a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ store of energy.
   3. Promotes healthy \_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Promotes normal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. Acts like a “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” and heat regulator to protect your heart, liver and other vital organs.
   6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ your body.
   7. Satisfies hunger and helps you feel \_\_\_\_\_\_\_\_\_\_\_\_\_\_ longer.
   8. Adds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to food.
7. Too Much Fat…
   1. Americans eat not only too much fat, but the wrong kinds of fat! Doing so can increase the risks for serious health **CONCERNS** and **ILLNESSES**.
8. High fat diets are liked to:
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Lowering Fat and Cholesterol in the Diet:
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!
   2. Replace saturated fats with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fats in the diet.
   3. Choose \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cuts of meat.
   4. \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_, or \_\_\_\_\_\_\_\_\_\_ foods instead of cooking them in oil or fat.
   5. Many more!!