

## Lipid Practice Sheet

### So what are lipids again?

Lipids are organic macromolecules that make up fats, oils, and waxes. They are used to store energy in living things, as well as playing important roles in biological membranes and waterproofing. The building blocks of lipids are glycerol and fatty acids – to be precise, each lipid is made of a **glycerol backbone** and **3 fatty acids**.

### What do the building blocks of lipids look like again?

In the space provided, draw a lone glycerol molecule (one of the key parts to a lipid).

There are two kinds of fatty acids: **saturated**, and **unsaturated**. In the space provided, draw one of each. Be sure to label the *carbon chain* and the *carboxyl group*.

### Saturated:

### Unsaturated:

So how do glycerol molecules and fatty acids combine to form lipid molecules?

A glycerol molecule and 3 fatty acids form a bond during the chemical reaction called:

During this chemical reaction, what molecule is removed?

Use the space below to draw a complete lipid molecule. Be sure to label the glycerol backbone as well as the fatty acids.

**More lipid questions:**

List three differences between unsaturated and saturated fatty acids.

Check whether or not the following foods would test positive for high lipid content:

<b>Food</b>	<b>Check</b>	<b>Food</b>	<b>Check</b>
Pizza		Vegetable oil	
Crackers		Water	
Butter		Honey	
Bacon grease		Mayonnaise	

Fill in the following chart for lipid tests

Water solubility test		
Paper bag test		