

## **Lab Report: Create a Smell**

*Use notebook pages 97-99 for reference*

These are the items (in order) you must include in your typed lab report (there are computers in the library you can use if you are having printer/computer problems at home):

### **Title of the Experiment**

**Purpose of the lab** (1 sentence and must be in your own words)

**Materials** (Type the materials listed on pg. 97 of your notebook.)

**Procedure** (You need to type up the steps you wrote on pg.97 of your notebook.)

**Data** (In this section, you will type your data into a table identical to your data table—pg. 98 in your notebook).

**Results** (Answer all of the following questions)

1. Draw out the two chemical reactions you did in the lab using structural formulas (this will need to be done by hand). See your notebook page 98. **Clearly label the name of each chemical under its structural formula in the equation.**
2. What evidence do you have that a chemical reaction took place?
3. In general, what smell do carboxylic acids have? Label each carboxylic acid in your equations above with their smell classification.
4. In general, what smell do alcohols have? Label each alcohol in your equations above with their smell classification.
5. In general, what smell do esters have? Label each ester in your equations above with their smell classification.
6. In general, what are reactants in chemical reactions? What are products?
7. What do catalysts do? What was the catalyst in our reactions?
8. What bonds were broken in our reactions type of a reaction? **Be specific!!**
9. Where did the energy come from to break these bonds?
10. What bonds were formed in this type of a reaction? **Be specific!!**

**Conclusion** (1 or 2 sentences)

-Explain how it is possible to turn a putrid smelling substance into a sweet smelling substance. **(Be specific in what has to take place in the chemical reaction.)** Explain how a different smell indicates that a chemical reaction took place.

***Please note: This is an independent report. You may not work on this report with any other chemistry student (even though you did this with your team). If more than one student turns in the same report, all students will receive zeros for this assignment. It is an independent assignment. If you need help, come and see me during office hours. Late reports will not receive full credit.***