

# How Much???

## **Mass relationships in chemical equations:**

The experiment that you will be performing is one that you will design and execute as part of the unit of the unit: 'The mole concept'; (mass  $\rightarrow$  mole  $\rightarrow$  mol: mol  $\rightarrow$  mass calculations).

Your job is to choose a chemical reaction and execute it under laboratory conditions.

You need to perform the experiment quantitatively.

As part of this experiment, you must to the best of your ability, collect one of the product(s), and determine a % yield.

Your **first task** will be the planning and choosing of a suitable experiment that will enable you to collect one of the products and hence to determine the % yield of this product.

At the end of the planning stage, you **must submit** in a 5" \* 8" card, this should include the following:

a design for your experiment, including a procedure, a list of materials required other than those in the laboratory, i.e. the chemicals and the solutions, and all safety facts.

We will provide chemicals that we have in the form that we have them. If we have compounds as solids or liquids and you require a solution, you must prepare the solution.

You must also include a chemicals budget based upon your material needs.

You will need to use a chemistry order catalog, such as Aldrich or Fisher, to order the chemicals that you need.

You must order chemicals in the form that they are available, even if it is more than you need.

Your procedure will be assessed for safety and, if modifications are required, returned to you for appropriate changes.

**All procedures must be approved for safety and materials before the experiment begins.**

Your **second task** on the experiment will be used for data collection.

Hence, you will perform the experiment of your choice and determine the % yield.

Thus, you need to devise a method, with a suitable procedure in order to perform it safely in the lab; and to achieve as accurate a result as possible.

Any reaction is fair game except for the reaction of a hydrated metal sulfate with a Group IIA compound.

Your planning stage 5" \* 8" card will be due on: \_\_\_\_\_

Your experiment will be performed on; \_\_\_\_\_

Your typed report will be due on: \_\_\_\_\_