# SUB UNIT 1:

## Activity 1.3

Now you need a good working plan, how do you wish to proceed and what kind of equipment do you need? Who in your group is going to do what?

To investigate where you might find chemical substances or chemical reactions in your household, you first have to define what chemical substances (often just called chemicals) and chemical reactions are. Where can you look for explanations? Of course in the internet, but those explanations might be too advanced as they might have been written for experts. Try your chemistry book as an alternative as well ☺.

Definitions of chemical substances:

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You will have found out that all substances can be called chemicals, did you expect that? Outside the world of chemists, many people think that chemicals are always dangerous and that we better avoid getting in contact with them. You can interview your friends and parents to see what they think about chemicals…

For a chemist, every substance is a chemical with properties he / she can describe and investigate and with a certain structure he can show with the help of models. Why do chemists have to use models to do so? Well, because chemists cannot see the structure of substances, build up by atoms, with their eyes! But this is something you will explore later…

Let´s come back to your search for chemicals in the household. What can you do to find them? You can

read descriptions of products such as detergents, food, batteries…;

look for substances in containers like your salt container, a soap container, …

Now you can go look for some chemicals in your household. Write down which chemicals you have found:

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Which way might be better for your safety?

To deal with chemicals you have to learn some safety measures before. You will find the necessary symbols and information in your textbook, so develop a poster in your detective team that you can always take out and check before you get in touch with chemicals!



Template for your poster:

Now, when you have found some chemicals in your household, what could you do to find out more about such chemicals? Again, you can

describe them according to how they look like and develop systems to categorize them;

read descriptions of products such as detergents, food, batteries… or

you can carry out experiments, that´s what chemists do!

Start with some simple substances and a simple system of categorization: Look for all white substances in your household and describe them according to what they look like. You can also make pictures. Think about what you could use to see more? Black paper, a microscope, …?

Present your categorization scheme and pictures to your detective team.