

## **SCIENCE WITH CHEMISTRY**

### **Why choose? Science with Chemistry**

Chemistry is all around us in our everyday lives. From the burning of petrol in a car engine to the digestion of food in your body and the manufacture of medicines at a chemical factory to the baking of bread in your kitchen. Through the development of generic transferable skills in science, numeracy, problem solving and practical work, the study of Science with Chemistry will help you to gain an understanding about how some of these processes happen and ensure you are equipped with the skills to prepare you for further study of this and other science subjects and medicine.

### **What does the course involve?**

You may have 3 periods every week to undertake your Science with Chemistry studies during which you will:

- Develop knowledge and understanding
- Develop problem solving and higher order thinking skills
- Develop practical and investigative skills through practical work including N5 outcomes.
- The course covers a broad range of topics at levels 3 and 4 and will include part of a unit of work at N4/5 in preparation for progression into S4.

Work covered will include:

- Introducing Chemistry – familiarisation with the Periodic Table and common elements, compounds and mixtures.
- Chemical Reactions – the study of chemical reactions in everyday life with the introduction of formula writing and calculations.
- N4/5 work will start with the Chemical Changes and Structure unit and will include:
  - Investigating rates of reaction.
  - Chemistry of neutralisation reactions.
  - Balancing equations.
  - Calculating gram formula mass.
  - Connection between bonding and chemical properties.

### **How is your work assessed?**

You will be assessed in Knowledge & Understanding and Problem Solving throughout the year. Units of work will be assessed formally. You will complete a number of assessed practical experiments and investigations

for each topic. Good performance in these assessments will show progression towards N5 Chemistry.

### **Homework in this course**

Homework will be issued when appropriate and will be based on a wide range of activities. It will provide opportunities for pupils to consolidate their knowledge & understanding and to develop skills in problem solving, researching and presenting information.

### **Possible pathways in the Senior Phase**

Progression will be dependent on progress and attainment through the level 3 and 4 outcomes and will be discussed at various times throughout the year with the class teacher. Pupils will have the option to continue their Chemistry studies in the senior phase by choosing:

- S4 - National 4 Chemistry – success in this course will enable pupils to progress to National 5 in S5 and subsequently Higher in S6
- S4 - National 5 Chemistry – success in this course will enable pupils to progress to Higher in S5 and subsequently Advanced Higher in S6