

Chemistry

Subject Information

The broad aims of the Chemistry Curriculum are to enable students to:

- develop interest and maintain a sense of wonder and curiosity about chemistry;
- construct and apply knowledge of chemistry, and appreciate the relationship between chemistry and other disciplines;
- appreciate and understand the evolutionary nature of science;
- develop skills for making scientific inquiries;
- develop the ability to think scientifically, critically and creatively, and solve problems individually and collaboratively in chemistry-related contexts;
- discuss science-related issues using the language of chemistry;
- make informed decisions and judgements on chemistry-related issues;
- develop open-mindedness, objectivity and pro-activeness;
- show appropriate awareness of working safely;
- understand and evaluate the social, ethical, economic, environmental and technological implications of chemistry, and develop an attitude of responsible citizenship.

Curriculum Framework

Compulsory Part

- I. Planet earth
- II. Microscopic world I
- III. Metals
- IV. Acids and bases
- V. Fossil fuels and carbon compounds
- VI. Microscopic world II
- VII. Redox reactions, chemical cells and electrolysis
- VIII. Chemical reactions and energy
- IX. Rate of reaction
- X. Chemical equilibrium
- XI. Chemistry of carbon compounds
- XII. Patterns in the chemical world

Elective Part

- XIII. Industrial chemistry
- XIV. Materials chemistry
- XV. Analytical chemistry

Learning and Teaching

- Students can gather information from various sources, and be able to select, categorise, and analyse critically, and to present their findings.
- Using questioning and discussion in the classroom to promote students' understanding, and help them to develop higher-order thinking skills as well as an active approach to learning.
- Using experiments to learn and appreciate the process of science, and training students to draw their own conclusions from the experimental results.
- Using problem-based learning for students to acquire new knowledge and integrate it with what they have learned previously to solve the problem.

Learning Activities

Assessment Method

School (S4-6)

	Content	Weight
UT / Exam mark	class work, assignments, experiments and corrections	15% of examination mark
	tests	15% of examination mark
	Written Examination	70% of examination mark

Public Examination

	Content	Weight
Public Examination	Paper I: Core Part	60%
	Paper II: Elective part (a choice of two out of three elective topics)	20%
SBA	Practical related tasks	20%