

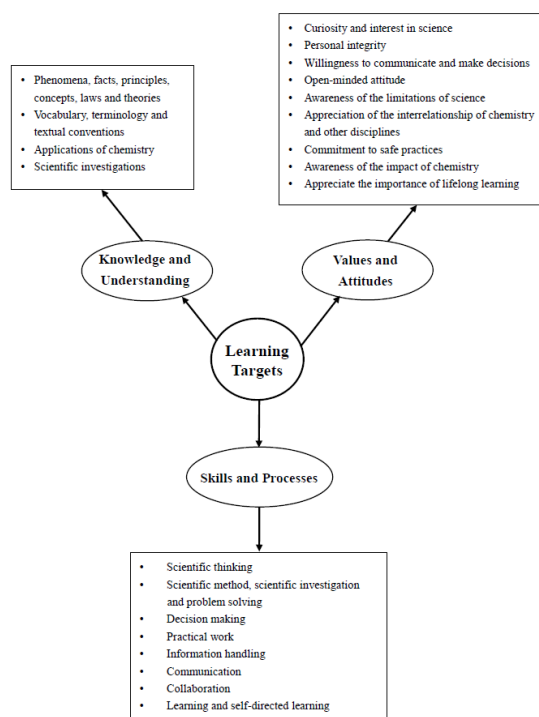
# Chemistry subject

[applicable to the 2028 HKDSE Examination and onwards]

Science Education Section  
Curriculum Support Division  
Education Bureau

## Curriculum Aims

- ▶ To provide chemistry-related learning experiences for students
  - construct and apply knowledge of chemistry, perform chemistry experiments, etc.
- ▶ To develop students' scientific literacy and key skills
  - skills for scientific inquiry, problem-solving skill, creative thinking skill, etc.
- ▶ To prepare students for further studies or careers in fields related to chemistry/STEAM



# Curriculum Framework

## ► Compulsory Part (Total 182 hours)

- 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 (Total 48 hours, select any 2 out of 3)

- XIII. Industrial chemistry (24 hours)
- XIV. Materials chemistry (24 hours)
- XV. Analytical chemistry (24 hours)

## ► Investigative Study (Total 20 hours)

- XVI. Investigative study in chemistry

# Assessment Mode

## ► Public Assessment

Component		Weighting	Duration
Public Examination	Paper 1 Compulsory part of the curriculum	60%	2 hours 30 minutes
	Paper 2 Elective part of the curriculum	20%	1 hour
School-based Assessment (SBA)		20%	

## ► School-based Assessment (About experiments and skills on practical work)

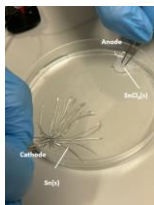
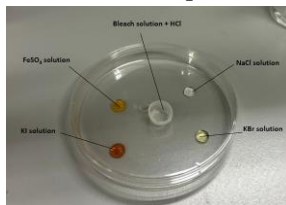
	Minimum number of assessments*	Weighting in subject
S5	2	10%
S6	2	10%

\* Assessments include volumetric analysis, qualitative analysis and other experiments / investigative study

## Examples for Learning and Teaching Resources

### ► Practical activities / demonstrations

#### • Microscale experiments

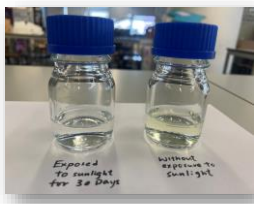


#### • Qualitative analyses



### ► Investigative study in chemistry

- Compare the  $\text{OCl}^-(\text{aq})$  concentration in bleach samples with and without sunlight exposure



Learning and  
Teaching Resources  
of Chemistry

## Examples of Student Learning Activities

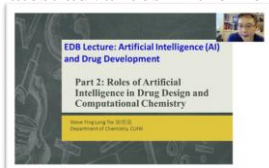
### Science in Action: Experiential Learning Activities on Testing and Certification Industry for Secondary Students

- Co-organised by EDB, HK Qualifications Framework, and HK Council for Testing and Certification
  - ❖ Student Workshop on Testing & Certification
  - ❖ School Talk: Testing & Certification in Our Daily Living
  - ❖ Visit to Laboratories/Organisations of Testing & Certification Industry



### The “Chemists Online” Self-study Award Scheme

- The online seminars were delivered by experts from local universities and chemistry related trades
- The seminars cover a wide range of chemistry topics, linking with the Chemistry curriculum while extending into the latest advances in the field



Award	Number of seminars completed within the designated period
Bronze	3
Silver	6
Gold	9
Platinum	12
Diamond	18

Organized by: 香港教育廳 Education Bureau, 香港考試及評核局 Council for Testing and Certification, 香港資歷框架委員會 Qualifications Framework

### STUDENT WORKSHOP ON TESTING AND CERTIFICATION

Ignite Your Students' Passion for Chemistry!

**Why Attend?**

- Hands-on Learning: Beneficial chemistry experiments related to pharmaceuticals and nutrition supplements.
- Real-world Applications: Introduction to quality control and regulatory compliance in markets.
- Further Study and Career Insights: Introduction to bachelor programmes and exciting career paths in Testing and Certification.

**Workshop Highlights:**

- Chromatography: See how substances are separated from a complex mixture.
- Spectrophotometry: Understand how light is used to test product purity.
- Mass Spectrometry: Find out how specific compounds can be identified in a mixture.
- Heavy Metal Detection: Detect metals in consumer goods.

**Event Details:**

- Date: Late June to early July 2025 (3 repeating sessions)
- Time: 2:30 PM - 4:00 PM
- Venue: Hong Kong Metropolitan University
- Target: S.6 students studying chemistry
- Capacity: 20 students per workshop (First-come, first-served)
- Fee: Free of charge

**Certificate!** Students who complete the workshop will receive a Certificate of Participation.



Student Educational Activities  
and Events

## Pathways for Further Studies

### Chemistry-related Bachelor Degree / Associate Degree Programmes

#### Bachelor Degree Programmes (examples)

- ▶ Chemistry
- ▶ Environmental Science
- ▶ Pharmacy
- ▶ Chemical Engineering
- ▶ Food and Nutritional Sciences
- ▶ Energy Engineering and Environmental Management
- ▶ Food Safety and Technology
- ▶ Medicine and Surgery
- ▶ Nursing

#### Associate Degree Programmes (examples)

- ▶ Chemistry and Testing Sciences
- ▶ Chemistry and Materials Science
- ▶ Chemical Technology
- ▶ Environmental Science and Management
- ▶ Chemistry and Life Sciences
- ▶ Chemistry and Environmental Science

## Reference

- ▶ Curriculum and Assessment Guide of Chemistry (Secondary 4 - 6)



[https://www.edb.gov.hk/attachment/en/curriculum-development/kla/science-edu/Chem\\_C\\_and\\_A\\_Guide\\_updated\\_Eng\\_22082018.pdf](https://www.edb.gov.hk/attachment/en/curriculum-development/kla/science-edu/Chem_C_and_A_Guide_updated_Eng_22082018.pdf)

- ▶ For enquiries, please contact respective subject teacher(s) or class teacher(s) at school

**Thank you**

