

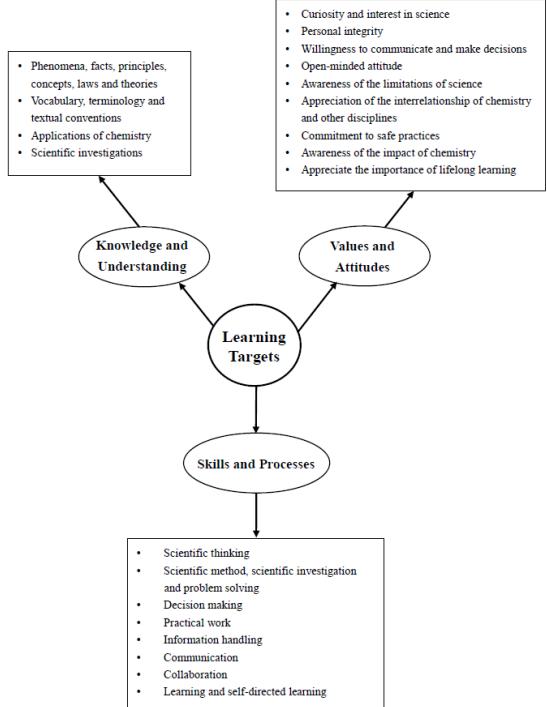
# Chemistry

## [applicable to the 2029 HKDSE Examination and onwards]

Science Education Section  
Innovation Technology Education 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 (20 hours)

# 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)

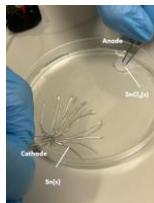
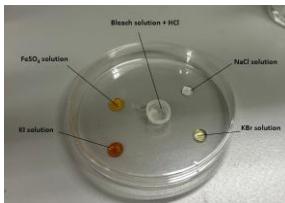
	Minimum number of assessments*	Weighting in subject
S5	2	10%
S6	2	10%

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

## Examples for Learning and Teaching Resources

### ► Practical activities / demonstrations

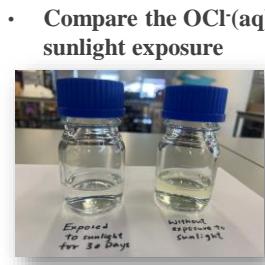
#### • Microscale experiments



#### • Qualitative analyses



### ► Investigative study in chemistry



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



Organisers: EDB Education Bureau 香港考試及評核局 香港學術資歷框架 Qualifications Framework

**STUDENT WORKSHOP ON TESTING AND CERTIFICATION**  
Ignite Your Students' Passion for Chemistry!

**Why Attend?**

- Hands On Learning: Practical chemistry experiments related to pharmaceuticals and nutrition supplements.
- Small Group Guidance: Introduction to quality control and regulatory compliance in markets.
- Further Study and Guidance: Insights introduction to bachelor programmes and exciting career opportunities in Testing and Certification.

**Workshop Highlights:**

- Demonstrations: See how substances are separated from a complex mixture.
- Spectrophotometry: Use ultraviolet light to test food product purity.
- Mass Spectrometry: Find out which organic compound can be identified in a mixture.
- Heavy Metal Detection: Detect metals in consumer products.

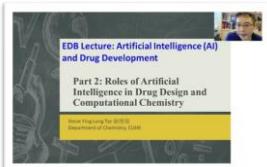
**Event Details:**

- Date: Late June to early July 2025 (4 repeating sessions)
- Time: 10:00 am to 12:00 pm
- Venue: Hong Kong Metropolitan University
- Target: 8.5 students taking Chemistry
- Capacity: 15 students per workshop (first-come, first-served)
- Fee: Free of charge

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

### 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



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