The "Chemists Online" Self-study Award Scheme 2026

Aim / Objective

This is to invite secondary schools to participate in the captioned Award Scheme.

Details

2. The "Chemists Online" Self-study Award Scheme 2026 is jointly organised by the Hong Kong Virtual University and the Education Bureau. The aims of the Award Scheme are to enhance scientific literacy of senior secondary students and promote STEAM education by providing students with more advanced chemistry online lectures for self-study. Details of the Award Scheme is provided in **Appendix 14a**.

3. In order to help schools understand more about the Award Scheme, the Education Bureau and the Hong Kong Virtual University have set up an information website and an online briefing session to introduce the e-learning platform, the contents of the seminars and the role of the teacher-in-charge involved. For details, please refer to the related webpage of the Award Scheme: http://hkvu.hk/cosas-briefing.

4. Secondary schools interested in nominating their students to participate in the Award Scheme are requested to complete the Application Form at **Appendix 14b** and return it to this Bureau by fax (Fax no.: 2194 0670) or by email (email address: edb.cosas@gmail.com) **on or before 16 January 2026 (Friday)**.

Contact Person

5. For enquiries, please contact Mr Michael CHAN of the Science Education Section, Education Bureau on 3698 3453.

The "Chemists Online" Self-study Award Scheme 2026

1. Introduction

The "Chemists Online" Self-study Award Scheme (COSAS) 2026 is jointly organised by the Hong Kong Virtual University (HKVU) and the Education Bureau. The aims of the Award Scheme are to enhance scientific literacy of senior secondary school students and to promote STEAM education by providing students with more advanced chemistry online lectures. In the 2025/26 school year, 27 online seminars will be provided to cover a wide range of chemistry topics, including drinking water treatment, synthetic polymers, nanomaterials and food chemistry, etc. These seminars were delivered by scholars from local universities and experts from chemistry-related industry. The contents of the seminars were designed to align with the Chemistry curriculum and extend to the latest advancements in the field of chemistry.

2. Aims

- To enhance students' scientific literacy and promote STEAM education;
- To encourage students to take initiative to learn and pursue more knowledge;
- To cultivate students' interest in chemistry; and
- To facilitate students to understand the interconnection between science, technology, society and the environment.

3. Target participants and enrolment

Students taking Senior Secondary Chemistry are welcome to join the scheme. Applications should be made via schools. Each school is required to submit one application form only.

4. Contents of the seminars

The seminars will be disseminated through an e-Learning Open Platform (HKMOOC) (URL: https://www.hkmooc.hk) developed and hosted by the HKVU. A stand-alone HKMOOC account with password will be generated for each participating student. The account information will be sent to the teacher-in-charge of the corresponding schools for distribution. The participating students are required to attend the seminars online and to engage in the online exercises via HKMOOC. The seminars will be released on 1 February 2026. The whole Award Scheme will be ended on 31 August 2026. More details of the scheme are available on the scheme webpage (URL: https://hkvu.hk/programs/cosas).

The topics for the 27 seminars in the Award Scheme are listed below:

Topic		Curriculum links
1	Drinking Water Treatment	Planet Earth; Analytical Chemistry
2	Air Quality Management Strategies for the Pearl River Delta Region	Analytical Chemistry
3	Water Uptake of Atmospheric Particles: From the Millikan Oil Droplet Experiment to a Blue Sky	Microscopic World II
4	Science and the Aftermath of Fukushima Nuclear Plant Accident	Microscopic World I
5	Electrochemistry	Redox Reactions, Chemical Cells and Electrolysis
6	The Importance of Water in Food Chemistry	Chemistry of Carbon Compounds
7	Colour Chemistry	Microscopic World I; Microscopic World II; Materials Chemistry
8	Photodynamic Therapy – A Promising Strategy of Cancer Treatment	Materials Chemistry
9	Synthetic Polymers in Modern Life	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds; Materials Chemistry
10	Metals in Biological Systems	Metals; Chemistry of Carbon Compounds
11	New Definitions of SI units	Analytical Chemistry
12	Nanomaterials for Environmental and Energy Applications	Materials Chemistry
13	Drug Discovery and Organic Chemistry	Chemistry of Carbon Compounds
14	Food Chemistry and Food Safety	Chemistry of Carbon Compounds
15	Molecules for Liquid Crystals Displays	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds; Materials Chemistry
16	Conducting Polymers	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds; Materials Chemistry
17	Display and Lighting Technologies - LCD, LED and OLED	Materials Chemistry
18	Chemistry and Material Science in our Daily Lives	Materials Chemistry
19	From Senior Secondary Level Redox	Redox Reactions, Chemical Cells and

Topic		Curriculum links
	Concept to the Appreciation of the Beauty of Chemistry	Electrolysis
20	Symmetry, Asymmetry and Our Chiral World – A Personal Recollection of the 2001 Nobel Prize in Chemistry	Chemistry of Carbon Compounds
21	A Journey to the Structural Determination of Organic Molecules: IR, MS and NMR Spectroscopy	Analytical Chemistry
22	Instrumental Analysis of Food and Drugs	Analytical Chemistry
23	Determination of Volatile Organic Compounds	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds
24	Chemistry in the Service of Mankind	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds
25	The Future of Plastics	Materials Chemistry
26	The Nano World	Materials Chemistry
27	Artificial Intelligence (AI) and Drug Development	Microscopic World I; Microscopic Word II; Chemistry of Carbon Compounds

5. Criteria for the awards

To accomplish the assigned tasks for one seminar, students are expected to:

- study the pre-seminar material which explains some of the chemistry knowledge and concepts involved in the seminar;
- attend the online seminar; and
- complete the online assessment items.

The following awards will be given to the participating students:

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

Certificates in electronic version will be awarded accordingly.

6. Teacher's role

The teacher-in-charge will receive an invitation email from the HKVU. Teachers will be required to register an account and granted rights to access the seminars. Teachers will receive students' progress of work for review regularly. By the end of the scheme, teachers will be required to check the attainments of the participating students and confirm the lists of students who have fulfilled the award requirements.

An online briefing session is available to introduce the e-learning platform, the contents of the seminars and the role of the teacher-in-charge for the reference of teachers interested in the scheme. For details, please refer to the related webpage: http://hkvu.hk/cosas-briefing.

The "Chemists Online" Self-study Award Scheme 2026
Application Form

(Deadline for application: 16 January 2026 (Friday))

To: Science Education Section, EDB
(Attn: Mr Michael CHAN)
(Fax no.: 2194 0670)

My school nominates _____ students to participate in the Award Scheme.

[Please fill in the details of the participating students on the Excel form available at http://hkvu.hk/cosas-sis and return the completed form to this Bureau by fax (Fax no: 2194 0670) or by email (email address: edb.cosas@gmail.com) on or before **16 January 2026 (Friday)**.]

Name of School : _____

School Address : _____

School Tel. No. : _____ Fax No. : _____

Name of Teacher-in-charge : _____

Contact No. of Teacher-in-charge : _____

E-mail Address of Teacher-in-charge : _____

School Chop

Name of Principal : _____

Signature of Principal : _____

Date : _____