

## Form 5 Chemistry (2019-2020)

### Introduction

The current NSS chemistry curriculum in the school is tailored with reference to the Syllabus suggested by Curriculum Development Council, Hong Kong. The public assessment of this subject is based on the Curriculum and Assessment Guide (Secondary 4-6) Chemistry jointly prepared by the Curriculum Development Council and the Hong Kong Examinations and Assessment Authority.

This Chemistry course is set to:

- (a) provide students with a platform for further study in NSS chemistry;
- (b) equip students with an appropriate level of chemical literacy so as to function effectively as an informed citizen in a technological society;
- (c) prepare students for the formulation of values related to moral, economic, and environmental aspects of chemistry, so that they may grow up to be a responsible citizen; and
- (d) provide students with some insight into future career prospects in the fields related to chemistry.

### Assessment Objectives

The assessment objectives of Chemistry are to evaluate the abilities of candidates to:

1. recall and show understanding of chemical facts, patterns, principles, terminology and conventions;
2. show an understanding of the use of apparatus and materials in performing experiments;
3. handle materials, manipulate apparatus, carry out experiments safely and make accurate observations;
4. demonstrate an understanding of the method used in chemical investigation;
5. analyse and interpret data from various sources, and draw relevant conclusions;
6. manipulate and translate chemical data and to perform calculations;
7. apply chemical knowledge to explain observations and to solve problems which may involve unfamiliar situations;
8. select and organise scientific information from appropriate sources and to communicate this information in an appropriate and logical manner;
9. understand and evaluate the social, economic, environmental and technological implications of the applications of chemistry; and
10. make decisions based on the examination of evidence and arguments.

School-based assessment (SBA) (20% of the HKDSE Subject Mark)

School-based assessment (SBA) is compulsory for ALL school candidates. In the HKDSE examination, candidates will be assessed by their teachers on their performance in a wide range of skills involved in practical tasks throughout NSS2 and NSS3.

Pre-requisite

Students are expected to have a good knowledge of the chemistry components of the junior and NSS1 secondary science courses as well as topics in the syllabus.

Content of the course

The Form 5 teaching program will cover five to seven sections of the suggested syllabus after Form 4. Slight adjustments may be implemented according to the actual progress of teaching and learning. The contents of the course are as follows:

First Term    7.    Fossil Fuels and Carbon Compounds  
                  8.    Chemistry of Carbon Compounds  
                  16.   Analytical Chemistry

Second Term    9.    Chemical Reactions and Energy  
                  10.   Rate of Reaction  
                  11.   Chemical Equilibrium  
                  12.   Patterns in the chemical world

Mode of lessons:

There are four lessons every week. There will be lectures, laboratory work and tutorials throughout the year.

Assignments

1. Classwork Exercises - Every student is required to finish all the classwork exercises assigned within a given period of time. There will be about fifteen to twenty questions on each topic.
2. Homework Exercises and Supplementary Exercise - There will be assignment after accomplishing a topic. Students are expected to submit their work two days after. Their assignments should be done in detail.
3. Experiment Report - There will be about one to two experiments under the teachers' instructions every term. Simple reports on the experiment are required after each experiment.
4. Group Projects - Students are required to choose one to two topics on current issues related to chemistry and to work on a project in groups of four.

5. Reading report - Every student needs to complete one reading report according to school requirements.

Assessment:

1. Quizzes and Tests - frequent inspection of the learning progress of each student will be carried out.
2. 1<sup>st</sup> Term Examination and Final Examination –  
1<sup>st</sup> Term examination consists of one paper (2 hours and 30 minutes)  
This paper consists of two sections:  
Section A consists of multiple choice questions  
Section B consists of short questions, structured questions and an essay question.

Final examination consists of one paper (2 hours and 30 minutes)

- This paper consists of two sections:  
Section A consists of multiple choice questions  
Section B consists of short questions, structured questions and an essay question.

Continuous Assessment:

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| 1. Continuous assessments and uniform Test                   | 10% |
| 2. Project / Scientific Investigation / Practical assessment | 5%  |
| 3. Attitude  | 5%  |