

Assessment in IGCSE Chemistry 0620

Session 1: Handout 1.9

The structure of the syllabus

The purpose of this document is to enable teachers to focus on and test themselves on the nature and contents of the syllabus. Try to answer the following questions by reference to the curriculum content section of the syllabus.

1. What extra knowledge is required for the Supplement?
2. What extra levels of skill are required in the Supplement that are not found in the Core? Refer to the grade descriptions in the syllabus to help you.
3. Which parts of the Supplement overlap with the Core?
4. Some topics/information about elements appear in more than one section of the syllabus. Identify as many of these areas of overlap areas as you can. There are at least eight.
5. Does your research from question 4 lead you to any different ways of arranging your scheme of work for your students?
6. Can you identify any areas of the syllabus on which you put less emphasis?
7. There are several sections of the syllabus which can easily be 'overlooked' in your overall scheme of work. Can you find where the following are in the syllabus?
 - i. the use of acetylene in welding
 - ii. the use of plastics and ceramics as insulators
 - iii. the action of heat on metal hydroxides
 - iv. the main components of fertilizers
8. Make a list of all the uses of chemicals mentioned in the syllabus for:
 - (a) the Core
 - (b) the Supplement

You may find this useful to photocopy for your students. Examiners often find that candidates' answers to questions involving uses of chemicals are surprisingly poor.

9. Try to distinguish the following differences between the Core and Supplement:
 - (a) Core (C): describe and explain diffusion
Supplement (S): describe the dependence of the rate of diffusion on molecular mass
 - (b) C: describe the formation of ions by electron loss or gain
S: describe the formation of ionic bonds between metallic and non-metallic elements
 - (c) C: describe the build up of electrons in shells and understand the significance of the noble gas electronic structures and of valency electrons
S: describe the relationship between group number, number of valency electrons and metallic character

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Session 1: Handout 1.19

How much formative assessment do you do?

Read through each question. Give yourself a score for each question.
Circle the number.

0 = never do this

1 = rarely do this (once or twice a year)

2 = do this occasionally (once or twice a term)

3 = do this regularly (at least once every two weeks)

Circle your score

Marking

Collect in books and look at them	0	1	2	3
Write comments (apart from good/ bad etc)	0	1	2	3
Give a grade for achievement	0	1	2	3

Tests

Set tests and give a grade to the student	0	1	2	3
Write comments on the test paper	0	1	2	3
Go over the test as class exercise	0	1	2	3
Give some students individual feedback on test	0	1	2	3

Asking questions in class

Ask questions to the whole class	0	1	2	3
Ask questions to specific students	0	1	2	3

Target setting

Set targets for the group as a whole	0	1	2	3
Set targets for individual students	0	1	2	3

Student Self Evaluation

Do you ask students about their progress?	0	1	2	3
Do you get feedback from individual students about how they feel they are performing	0	1	2	3
Add up the numbers (max 13 per column)	___	___	___	___

A low number scored in the two left-hand columns is not a criticism of teaching methods. It is intended to highlight areas which you could think about developing further to help your students improve their performance. By looking at the figures in each column you should be able to get an idea of what areas you may consider developing.

For formative assessment to be useful, the student should learn something positive from the experience. For example, marking should not be used just as a blunt tool for obtaining student grades to see how they are progressing, but should include positive feedback.

Feedback on tests could include not only the correct answers but the reasons why the answers were correct (or incorrect).

SMART targets are steps towards reaching specific goals. Students could be given specific goal to aim at over a fixed time period. They can be explained as follows:

- **Specific:** state exactly what needs to be done e.g. learn a specific section of work/ learn how to balance equations
- **Measurable:** most easily done by a specific test/ piece of work to test understanding
- **Achievable:** the target should be simple enough to be met within a short period of time e.g. two weeks
- **Realistic:** the task set will depend on the level/ grade at which the student is working – it is counterproductive to set tasks which make students feel that they have not succeeded
- **Time-related:** the length of time the student is given to complete the task is specified. You may need to check up on how the task is going from time to time.

Students may also evaluate how they think they are progressing by individual discussion with the teacher. It may be the case that the student's view of his or her progress differs from the teacher's view. Self evaluation may also throw up areas where a student is weak.