PEARSON ALWAYS LEARNING

DELEGATE BOOKLET

Getting Ready to Teach – GCE Chemistry 2015

14GBAS02

Activity 1.1 – Introduction to the specification

Purpose:

- To consider how the new Edexcel specification compares with current teaching specifications
- To consider the decoupling of AS and A Level and the implications for alternative curriculum delivery models

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Task:

Delivering the new specification

Consider the breakdown of the specification topics for AS and A Level.

1. Discuss how the changes and the overview of content compare with your current teaching specification.

Consider the decoupling of AS and A Level

Consider the AS Chemistry qualification at a glance in the specification. Compare this with the A Level Chemistry qualification at a glance.

1. How likely are you to enter all students for the AS in chemistry and then for the A Level?
2. What are the implications for developing schemes of work? Can you consider any alternatives to a linear route for curriculum delivery?

Activity 1.2 – Planning delivery approaches

Purpose:

- To carry out medium term planning, using the sample schemes of work, to consider the implications for teaching and learning
- To consider the teaching and development of mathematical and practical skills

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Task:

You are provided with schemes of work for the following topics:

- Topic 1: Atomic Structure and the Periodic Table
- Topic 5: Formulae, Equations and Amounts of Substance

1. Carry out medium term planning for one of these topics.
2. Are there any implications for teaching and learning?

Activity 1.3 – Supporting student progression

Purpose:

- To consider the challenges students face when they start to study AS/A Level Chemistry in Year 12

Task:

1. Identify the challenges students face when progressing from GCSE to AS/A Level Chemistry.
2. What can be done to support student progression?

Activity 2.1 – Indirect assessment of practical skills

Purpose:

- To consider the practical skills assessed in examination questions and the implications for teaching and developing students' practical skills

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Task:

Consider the practical skills in Appendix 5a in the A Level Chemistry specification.
Now look at Question 6 from A level Paper 3, and the mark scheme.

1. How will you develop students' practical skills and ensure they can be assessed indirectly?

Activity 2.2 – Direct assessment of practical skills

Purpose:

- To consider if there are any challenges to carrying out the core practicals
- To consider how to provide opportunities for students to develop investigative approaches to practical work

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Task:

Consider the practical skills in Appendix 5b and the use of apparatus and techniques in Appendix 5c. Review the mapping between 5c and the core practicals, in Appendix 5d

1. Are there any practicals/techniques that pose a challenge? (lack of equipment etc)

2. Do your students apply investigative approaches to practical work? How would you enable them to do so?

Activity 2.3 – Core practicals

Purpose:

- To consider if there are any challenges to carrying out the core practicals
- To consider how to provide opportunities for students to develop investigative approaches to practical work

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Task:

You are provided with a student sheet, a teacher sheet and a technician sheet for Core practical 1: Measure the molar volume of a gas

1. What is your impression of the activity and of the resources available to support your teachers and students?

Activity 3.1 – Multiple choice questions

Purpose:

- To consider the different skills tested in multiple choice questions
- To consider strategies that students can use to answer them
- To consider the varying levels of difficulty in such questions

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Task:

1. Using Activity 3.1 Sheets 1 and 2, look at the four examples provided on Sheet 2 and answer the questions on Sheet 1.

2. We will have a brief discussion on your thoughts.

Activity 3.2 – Unscaffolded questions

Purpose:

- To consider the difference in demand between scaffolded and unscaffolded questions and the reasons for using more of the latter
- To consider ways of preparing students for successfully answering unscaffolded questions

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Task:

1. Use Activity 3.2 sheet to compare an unscaffolded question that appears in the SAMs with a version of the same question with scaffolding in place.
2. Discuss how the demands of these compare.
3. Consider how to prepare students for answering unscaffolded questions.

Activity 3.3 – Level 2 Maths in calculation questions

Purpose:

- To consider why there may appear to be more marks for calculations in question papers than required for Level 2 Maths
- To consider what steps in calculations are likely to count as Level 2 Maths
- To consider which Level 2 Maths skills your students may need help with

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Task:

1. Look at an example of a calculation in the SAMs (question and mark scheme) using Activity 3.3 Sheets 1 and 2, and suggest which of the four marking points might be Level 2 Maths.
2. Discuss the extent to which the challenges of this question are mathematical or chemical.
3. Discuss which Level 2 Maths skills your students may have difficulty with, with reference to Appendix 6 in the specification.

Activity 3.4 – Extended response questions

Purpose:

- To consider the method used to produce a total mark for this type of question
- To look at an example from the SAMs
- To consider sample student answers for the question

Task:

1. Look at Activity 3.4 Sheet 1 and consider the generic marking instructions for this type of question
2. Use Sheet 2 to consider an example of a 6-mark extended response question.
3. Use the generic marking instructions and the indicative marking points for this question to suggest an appropriate mark for Student answers A and B.
4. Discuss your marks and whether you consider the total mark awarded is appropriate for the answer.