**EDUC 272 - Methods in Secondary Chemistry**

**February Task**

**Introduction**

In this February Task, you will plan a lab lesson. If you have successfully completed the **January Task**, you will know which laboratory (one of **LAB 1** to **LAB 20**) you chose. If you have changed your mind about the lab, it is OK. If you did not do the January Task, you must NOW select one laboratory from **LAB 1** to **LAB 20** on the January EDUC 272 web page. Please read those labs email me to tell me which one you would like to do.

You can work in pairs on the February Task with a EDUC 272 teacher who is going to do the same laboratory (LAB 1 - LAB 20). This means you can do answer of the questions together and only submit one February Task.

**Learning Outcomes**

By doing this task, you will improve your ability to:

* Plan and conduct laboratory-base learning in a safe manner to generate interest, build knowledge, and cultivate inquiry in students.
* Select and adapt methods, materials, and resources available in the educational context to support meaningful chemistry learning.

**Steps for doing the February Task**

In the first part of the February Task, you will read **Handout 2.1 – Generic lesson planning sequence** and look at the lab you have chosen (i.e., one of **LAB 1** to **LAB 20**). You will write a simple point form lesson plan for your lab in **February Task (SECTION II)**.

Then, you will look at **Handout 2.2 – A teaching model** and select three key questions from each category and look at your simple lesson plan and then refine it. Keep it simple. A formal lesson plan is not necessary at this point.

Then, you will read **Handout 2.3 – What not to do** and **Handout 2.4 – Secondary safety** (pages 18-28) and go to the laboratory where you will do your lab in March. Then you will use **February Task (SECTION II)** to answer safety questions.

Please complete the Feburary Task **on or before March 1, 2016 at midnight Kenyan time** and submit it to me **by email**. We will not be posting the February Tasks on the blog.

**Assessment of the February Task**

This task will be marked out of 10 and the marks for each question will appear in brackets (.5 points, for example). You can get up to 4% for completing this **February Task**. Please do not copy other students' work.

**SECTION II Questions**

**READING: Handout 2.1 – Generic lesson planning sequence; Handout 2.2 – A teaching model**

**Question 1**

What is your name? Type it in below.

**Question 2**

Which lab have you decided to plan this **February Task** and do and document in the **March Task**? Write the lab name below. It is fine to change your mind now - just tell me about the change and why.

**Question 3**

**Question 3.1 (1 marks)**

Read **Handout 2.1 – Generic lesson planning sequence** and look at the lab you have chosen. Write below in simple one-line sentences the sequence by which you will teach the lab lesson. You do not have to follow Handout 2.1 exactly – please only use it as a rough guide.

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**Question 3.2 (1 mark)**

We begin this question with a quote:

“Pedagogical content knowledge is a type of knowledge that is unique to teachers, and is based on the manner in which teachers relate their pedagogical knowledge (what they know about teaching) to their subject matter knowledge (what they know about what they teach). It is the integration or the synthesis of teachers' pedagogical knowledge and their subject matter knowledge that comprises pedagogical content knowledge” (Cochran, 1997).

Now, look at the steps of your lesson. Are they the same as the steps in your lab?

If your answer is yes, tell me why in 1-2 sentences (Hint: think of the quote):

If your answer is no, then tell me why in 1-2 sentences (Hint: think of the quote):

**Question 3.3 (2 marks)**

Read **Handout 2.2 – A teaching model** from Bruce Gurney. Select two questions from this handout and write them below. These questions should be things you want to work on when you do your lab in March.

Goals

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Strategies

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Resources

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Instruction

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Assessment

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**Question 3.4 (3 marks)**

Now, look at your answers to **Questions 3.2** and **Questions 3.3**. Think about how you can use your answers to **Questions 3.3** to improve your lesson sequence in **Questions 3.2** Rewrite your simple lesson sequence with, but explain each step with 1-2 sentences. This is your rough lesson plan.

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**READING: Handout 2.3 – What not to do; Handout 2.4 – Secondary safety**

**Question 4 (0.5 marks)**

Page 1 (**Handout 2.1 – What not to do**) is a cartoon picture of a science laboratory in a Canadian high school. There are many dangers in this lab. Look at the cartoon and think about what you have noticed in schools in Dadaab when students are doing laboratory work. Identify five dangers you need to pay attention to as a science teacher.

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**Question 5 (0.5 marks)**

Now, read the **Handout 2.2 – Secondary safety** (page 18). Can you think of more dangers that you missed in Question 4? List 5 relevant to your school lab.

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**Question 6 (1 mark)**

Now, read the **Handout 2.2 – Secondary safety** (pages 21-24) and visit your school. List the safety equipment that you have at your school below.

**Question 7 (1 mark)**

Now, read the **Handout 2.2 – Secondary safety** (pages 25-28). Write 5-6 sentences about a first-aid incident that involved students in your school during school hours. What happened? What was the injury? What was the first aid response?