

**ASSIGNMENT 02 (100 marks)****QUESTION 1**

1. Explain the following concepts/terms in your own words and indicate the study guide's unit and page numbers where you found the theory for answering this question.
  - 1.1 Classifying practical activities
  - 1.2 What is needed for practical science in the classroom
  - 1.3 Classroom versus laboratory
  - 1.4 Equipment for practical science in the classroom
  - 1.5 Supporting practical science in the classroom
  - 1.6 Safety in the classroom and environmental impact outside it
  - 1.7 Washing up, tidying, maintenance – the role of learners
  - 1.8 Practical science on a shoestring budget

**Rubric for mark allocation**

| Criteria                                                                                                                                   | Marks      | Total     |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|
| Explanation of the concepts/terms in your own words (0 marks for cutting/copying and pasting from the study guide and/or any other source) | 4          | 32        |
| Study guide reference (unit number and page number)                                                                                        | 1 for both | 8         |
| <b>Total</b>                                                                                                                               |            | <b>40</b> |

**QUESTION 2**

2. Your PSC1501 study guide explains that science teachers think practical science is good. Research on the subject shows the main reasons for this as indicated in the study guide.
  - 2.1 Illustrate your understanding of these reasons by explaining each reason and applying practical examples where they are evident.

### Rubric for mark allocation

| Criteria                          | Marks | Total     |
|-----------------------------------|-------|-----------|
| Identify reasons                  | 4     | 4         |
| Explanation and practical example | 4 x 4 | 16        |
| <b>Total</b>                      |       | <b>20</b> |

- 2.2 Demonstrate your understanding of why practical science is often left out by supplying reasons why teachers might leave it out in their teaching. (10)

Marks to be allocated as follows:

Background to reasons: 2 marks

Four reasons:  $2 \times 4 = 8$  marks

- 2.3 Inquiry-based pedagogy is being embraced in principle across the globe. In the last decade, it has been supported by an increasing body of research on its effectiveness. Illustrate your understanding of the concept of inquiry-based pedagogy with a relevant example. (10)

### **QUESTION 3**

- 3.1 There are several types of practical activities. Tabulate the characteristics of demonstrations, experiments and practical investigations. Information should include the following:

- The role of the learner during the practical activity
- The role of the teacher during the practical activity
- An important element of the practical activity to consider (20)