

**FACULTY** : Education

**<u>DEPARTMENT</u>** : Science and Technology Education

**CAMPUS** : APK

**MODULE** : METHODOLOGY AND PRACTICUM: NATURAL

SCIENCE 3B

(MOSPNB3)

**SEMESTER** : Second

**EXAM** : November 2020

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MODERATOR :DR B MUDADIGWA

**DURATION** :SUBMISSION **MARKS** : 50

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## **INSTRUCTIONS:**

1. Answer ALL THE QUESTIONS.

2. Number your answers clearly.

## **QUESTION 1**

Being a Natural Science teacher requires creativity and critical thinking. Presume you are teaching the theme Energy and Change and the Specific Topic is series and parallel circuits to grade eight (8) learners in an urban school. Your mentor has asked you to design your OWN learning activity task that would cater for the psychomotor domain.

- 1.1 Name and state the specific outcome that caters for the psychomotor (2) domain.
- 1.2 What is the psychomotor domain? Give one example of the psychomotor (3) domain.
- 1.3 Design a formal assessment task that caters for the psychomotor domain. The task that you design, should be presented in a print ready format, i.e. what it would actually look like when given to learners to complete. (12)
- 1.4 Your mentor teacher is of the firm belief that a *rubric* must be used to assess the formal assessment task.
  - 1.4.1 What is a rubric? (2)
  - 1.4.2 Design a rubric to match the task you presented in the question above. (5)

## **QUESTION 2**

The South African Classroom is diverse. The Department of Basic Education's White Paper 6, provides a framework that guides for inclusion South African schools.

2.1 Define inclusivity within the context of education in South Africa. (3)

2.2 Identify and critically discuss barriers in the teaching and learning of Natural Sciences. Using appropriate teaching strategies that promote the move towards Industrial 4.0, explain how you will address these barriers in the Natural Science classroom?

(23)

[26]

**TOTAL: 50**