

FACULTY : Education

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

CAMPUS : APK

MODULE : METHODOLOGY AND PRACTICUM: NATURAL

SCIENCE 3A

(MOSPNA3)

SEMESTER : First

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DURATION : SUBMISSION **MARKS** : 50

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INSTRUCTIONS:

1. Answer ALL THE QUESTIONS.

2. Number your answers clearly.

QUESTION 1

The South African curriculum is based on the Tyler (1949) Model of Curriculum Design. This model addresses three important aspects for curriculum design: the nature and structure of knowledge, the needs of the society and the needs of the learner.

- 1.1. Discuss why it is important for curriculum developers to take these aspects into consideration when designing a curriculum that is responsive to the key imperatives of the Fourth Industrial Revolution. (7)
- 1.2. Critically discuss four (4) factors that influenced science curriculum reform in South Africa. (8)
- 1.3. The Curriculum and Assessment Policy Statements (CAPS) document emphasises the importance of Specific Aims which are referred to as guidelines on how to prepare learners in your classroom to meet the challenges of society and they feature during teaching, learning and assessment (DoE, 2011). Choose any Natural Sciences topic and design a lesson that is in line with Specific Aim 1: Doing Science. The lesson should reflect the following aspects:
 - 1.3.1. Topic and Grade; (1)
 - 1.3.2. Discussion of skills required for this specific aim and activity; (2)
 - 1.3.3. Summary of content knowledge; (3)
 - 1.3.4. The purpose or objectives of the lesson; and (2)
 - 1.3.5. A brief description of the assessment linked to lesson objectives (2)

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QUESTION 2

Environmental Education is a holistic, lifelong learning process directed at creating responsible individuals who explore and identify environmental issues, engage in problem solving, and act effectively to improve the environment.

Critically discuss the above statement.

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TOTAL: 50