



UNIVERSITY
OF
JOHANNESBURG

<u>FACULTY</u>	: Education
<u>DEPARTMENT</u>	: Childhood education
<u>CAMPUS</u>	: SWC
<u>MODULE</u>	: CNE10A3 – Culture and the Natural Environment
<u>SEMESTER</u>	: One
<u>EXAM</u>	: June 2019 Exam

DATE : June 2019 **SESSION** : 08:30-11:30

ASSESSOR(S) : Mr Naude

MODERATOR : Ms Pretorius

DURATION : 2 HOURS **MARKS** : 100

NUMBER OF PAGES: 3 PAGES

INSTRUCTIONS:

1. Answer ALL THE QUESTIONS.
 2. Number your answers clearly
 3. Consider the mark allocation of each question as an indication of how much time to spend on each question in order to complete all questions on time.
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QUESTION 1

It is becoming increasingly important in the 21st century that people are scientifically literate. In an essay, not longer than two (2) pages, discuss the concept of what scientific literacy is and explain how you as a foundation phase teacher will incorporate the teaching of scientific literacy. Make reference to the following concepts in your essay:

- The nature of science.
- Science process skills.
- Inquiry based science.

[20]

QUESTION 2

Since the first industrial revolution humans have had an impact on the environment and subsequently caused a lot of damage. In an essay, not longer than two (2) pages, explain how you would teach a lesson on the topic of 'human impact on the environment'. Include the following in your essay:

- A detailed explanation of the science concepts and phenomena that you want to teach.
- The causes of human environmental impact.
- Possible solutions to the challenges of environmental degradation.
- The contextual factors that you need to consider when designing your lesson.

[25]

QUESTION 3

You decide to teach a lesson on the topic of 'the different states of matter' to a Grade 3 class consisting of 34 learners. Design a lesson on the topic that would ensure that all 34 learners are actively engaged throughout the entire lesson. Your answer may be in the form of a lesson plan.

[20]

QUESTION 4

- 4.1 Define the law of conservation of energy. (3)
- 4.2 Using photosynthesis as an example, describe the energy transfer that occurs in this process. (8)
- 4.3 Whilst sitting at your desk, marking learners' books, your pencil balances on the edge of your desk and subsequently falls to the floor. Use the pencil balancing on the edge of the desk as Position A and the pencil falling to the ground as Position B. Describe the change within the types of energy involved at both positions. (4)
- 4.4 Draw an electrical circuit with the following components: (5)
- Three (3) Cells.
 - Two (2) lightbulbs connected in parallel.
 - A closed switch
- [20]**

QUESTION 5

You decide to take your foundation phase learners on an excursion to assist you in teaching the theme, 'products and processes'. Describe how you would use the excursion to teach this theme. Include the following in your answer:

- The location of the excursion.
- The concepts taught to the learners.
- The activities that the learners will participate in.
- The educational value of the excursion.

[15]

GRAND TOTAL: 100