



UNIVERSITY OF JOHANNESBURG
FACULTY OF EDUCATION
JUNE EXAMINATION 2015

PROGRAMME: B Ed (SENIOR PHASE AND FET)
MODULE: TEACHING METHODOLOGY AND PRACTICUM 3A:
 NATURAL SCIENCES
CODE: MOSPNA3
TIME: 1 hour
MARKS: 50
EXAMINER: Dr RC Grobler
MODERATOR: Prof UD Ramnarain

(This paper consists of 2 pages)

INSTRUCTIONS

Read the following instructions carefully before answering the questions:

1. This question paper consists of two questions.
2. Answer ALL the questions.
3. Number your answers correctly according to the numbering system used in this question paper.

QUESTION 1

Harlen, et al. (2010) have identified ten principles underpinning essential education in science. Choose any four of these principles, and discuss how each of these principles will inform your planning and teaching of a Natural Sciences lesson.

(20)

QUESTION 2

When planning a lesson, science teachers are required to identify certain features of the content to be taught. Loughran, Mulhall and Berry (2004) proposed eight questions that can be used to guide teachers in their planning. Choose any topic in Natural Sciences and respond to the following questions:

- | | |
|--|-----|
| 2.1 Name your topic in Natural Sciences. | (2) |
| 2.2 State three objectives for the lesson. | (6) |

- | | | |
|------|---|-------------|
| 2.3 | Identify one 'big idea' related to the topic. | (2) |
| 2.4 | What do you intend the learners to learn about this 'big idea'? | (2) |
| 2.5 | Why is it important for the learners to know this? | (2) |
| 2.6 | What else do you know about this idea (that you do not intend learners to know yet)? | (2) |
| 2.7 | What difficulties/ limitations are connected with teaching this idea? | (2) |
| 2.8 | What knowledge do you have about learners' thinking which influences your teaching of this idea? | (2) |
| 2.9 | What other factors influence you teaching of this idea? | (2) |
| 2.10 | What teaching procedures would you use (and particular reasons for using these) to engage with this idea? | (4) |
| 2.11 | Which specific ways would you use of ascertaining learners' understanding (not confusion) about this idea? You need to include likely range of learners' responses. | (4) |
| | | (30) |

TOTAL: 50

----oOo----