



<b><u>FACULTY</u></b>	: Education
<b><u>DEPARTMENT</u></b>	: Science and Technology Education
<b><u>CAMPUS</u></b>	: APK
<b><u>MODULE</u></b>	: METHODOLOGY AND PRACTICUM: PHYSICAL SCIENCE 3B (MOFPPB3)
<b><u>SEMESTER</u></b>	: Second
<b><u>DATE</u></b>	: SSA January 2020

**ASSESSOR(S)** : DR MUDADIGWA B

**MODERATOR** : DR RAMAILA (UJ)

**DURATION** : 1 HOUR

**MARKS** : 50

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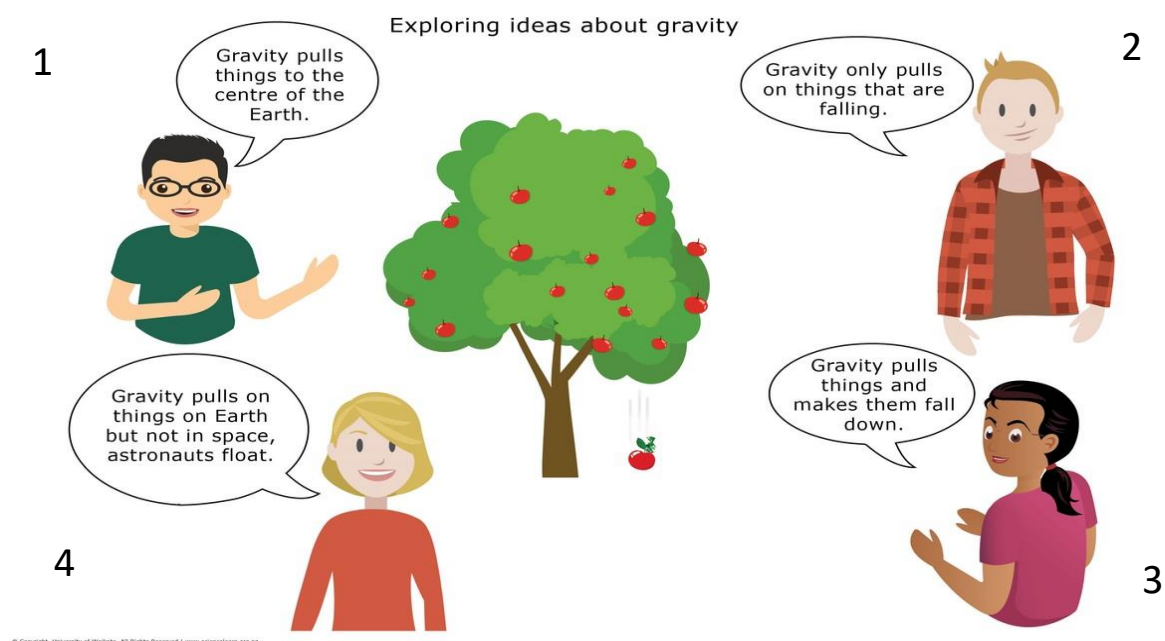
NUMBER OF PAGES: 3 PAGES

INSTRUCTIONS:

1. Answer ALL THE QUESTIONS.
  2. Number your answers clearly.
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**QUESTION 1**

Consider the concept cartoon below which is about learner misconception on gravity.



- 1.1 What are misconceptions? (3)
- 1.2 Explain students' alternative concept in terms of statements 2 and 4 in the concept cartoon above. (6)
- 1.3 Describe the views of scientists on naïve concepts explained in question 1.2 above. (6)  
[15]

**QUESTION 2**

- 2.1 What is meant by prior knowledge? (3)
  - 2.2 State four (4) reasons why teachers need to invoke learners' background knowledge. (4)
  - 2.3 Briefly describe pre-conceived notions. (2)
- [9]

**QUESTION 3**

- 3.1 What do you understand by the Nature of Science? (2)
- 3.2 What makes science (e.g. scientific disciplines such as physics, biology, etc.) different from other disciplines (e.g., religion, philosophy)? (4)
- 3.3 Discuss three implicit pedagogical approaches that can be adopted to improve understanding of the Nature of Science. (6)
- 3.4 Why is it important to include the Nature of Science in the science curriculum? (4)
- [16]**

**QUESTION 4**

Compare and contrast practical work and inquiry as essential tenets in Physical Sciences. [10]

**TOTAL: 50**

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