



UNIVERSITY OF JOHANNESBURG
FACULTY OF EDUCATION

TAKE HOME SUPPLEMENTARY EXAMINATION

PROGRAMME: FOUNDATION PHASE

MODULE: MATHEMATICS FOR TEACHING FOUNDATION PHASE 2A

CODE: MFP10A2

TIME: TAKE HOME

MARKS: 100

EXAMINERS: Prof. K. K. LUNETTA

MODERATORS: DR. J MASEKO

(This paper consists of 2 pages)

INSTRUCTIONS:

Read each question carefully before answering it. Answer all the questions. Questions can be answered in any sequence but ensure that you clearly number your answers.

1. You have been mandated by the Head of Department to set a ten question multiple choice test. The test will be used to test your colleagues on knowledge of space and shapes. Set the ten questions with 3 distractors and an answer for each question on the following concepts.
 - i. Spatial reasoning (1 question)
 - ii. Spatial sense (1 question)
 - iii. Two and three dimensional shapes (8 questions (only 3 questions on calculations, the other 5 must be on conceptual definitions and properties of shapes))

[20 marks]
2. Develop a 10 minutes video where you explain the following concepts. In the video you should show knowledge of the concepts you are explaining by not merely reading

from a piece of paper but rather explaining from a point of understanding the concepts.

- i. Various types of angle (right angle, acute angle, obtuse angle, reflex angle) (2 minutes)
- ii. How would you explain the terms, geometrical reasoning and spatial thinking. (2 minutes)
- iii. Explain the properties of the following triangles and how they differ from each other: equilateral triangle, isosceles triangle, scalene triangle, right angled triangle. (3 minutes)
- iv. Explain with the aid of activities and manipulatives how you would enhance learners knowledge of shapes at foundation phase. (3 minutes)

[30 marks]

3. This course covered the learning outcomes and assessment standards of Space and Shapes -

Foundation Phase (Grades R to 3)—Recognize, identify, name, describe, sort, compare, and build three-dimensional objects in their surrounding environment; recognize symmetry, and describe one three-dimensional object with respect to another and follow directions as individuals and within a group (Reception year); identify, describe, sort, and compare two-dimensional shapes and three-dimensional objects (Grade 1); and construct and explore two-dimensional and three-dimensional shapes and objects (Grades 2 to 3)

The Department of Education has requested you to write a book for foundation phase covering the Learning outcome – Space and Shape with the following guidelines.

- i. Introductory information of what the Learning Outcome is about.
- ii. Chapters that have Introduction, content, definitions of concepts, (Shapes, lines, two-dimensional shapes - triangles, quadrilaterals, and three-dimensional shapes- prisms and pyramids). Develop activities for learners for each topic.
- iii. Make sure the book is about 10 or more pages and full of colourful diagrams and pictures illustrating the concepts. You must acknowledge the source of the pictures. The book must be inviting to foundation phase teachers.

[50 marks]

END OF EXAMINATION