SUBJECT:MATHEMATICAL LITERACY

LEVEL: 3

MODULE 1 NUMBERS.

MAP AND SCALE.

After completing this topic, you will be able to: Read various maps using given scales. (smaller scale and greater scales)

- Identify variance in scales

- Manage and calculate distance using scale.

Map reading.

Content

- Using scale: On the map : Actual ground

- Conversion : mm ↔ cm ↔ km

Smaller scale and large scale

- Maps are known as small scale or large scale.

- A small scale map shows a very large area. (1: 250 000 – 1: 7 500 00)

- A large scale map shows a small area in a lot of detail. (1:50 000)

Calculation using scale

1: 250 000	The scale shows 1 cm on the map as 250 000 on the ground. This scale means 1 cm on the map = 250 000 cm on the actual ground. 1 cm on the map $= (\dfrac{250\ 000}{100\ x\ 1\ 000})$ km = 2,5 km on the actual ground.

Class activity.

- 1. A map of South Africa has a scale of 1:5 000 000.

    (a)   Write this scale as 1 cm on the map = ------- cm on the ground.

    (b)   Write this scale as 1 cm on the map = -------- km on the actual ground.

    (c)   Molefe measured the distance between Umtata and Polokwane with

           a ruler as 16,65 cm. What is the distance on the ground?

   2. Rakoma measured the distance between Washington and New York as

      9,3 cm. Determine the distance on the ground using 1:3 500 000

      as a scale.