

USING THE ENVIRONMENT AS A TEACHING RESOURCE IN MATHEMATICS.



Mathematics concepts have remained a myth to many students because of the way we teach. If the lessons were made more practical then the students would enjoy whatever is being taught.

The attached photographs show senior five students of Gayaza High School studying Statistics: "collection of data on the circumference of trees". This was a student-centered lesson done during their free time on Saturday. So we cannot sacrifice students at the pretence that there is no time for student centered learning because of the demands of our syllabus.

TOPIC: STATISTICS-COLLECTION OF DATA.

Measuring the circumference of a sample of trees.

CLASS: SENIOR FIVE-Age 17-18 years.

Lesson objectives:

By the end of the lesson the students should be able to:

1. Collect and record data.
2. Tabulate data in a frequency table using appropriate classes.
3. Calculate the average.
4. Represent data using graphs such as; a pie charts, histogram.
5. List the names of a few trees on the compound.
6. Use a cam recorder.

For the new students in senior five they should have learned some of the corners of the school compound

Back ground knowledge required:

This lesson should be conducted in senior five to introduce statistics. The lesson is meant to remind the students about the statistics work covered in senior four. It should be purely a group discovery approach guided by the student activity in the following question.

Question:

By selecting 20 trees on the school compound measure their circumference taking readings at a height of the chest of the shortest member in your group. Take three readings each time and record down the average reading.

- (a) Tabulate your findings in a frequency table using suitable classes.
- (b) Represent your findings on a pie chart and a Histogram
- (c) Calculate the mean circumference of your sample of trees.

Each group should make a presentation (power point) of their findings in a class discussion.

Possible citizenship outcomes:

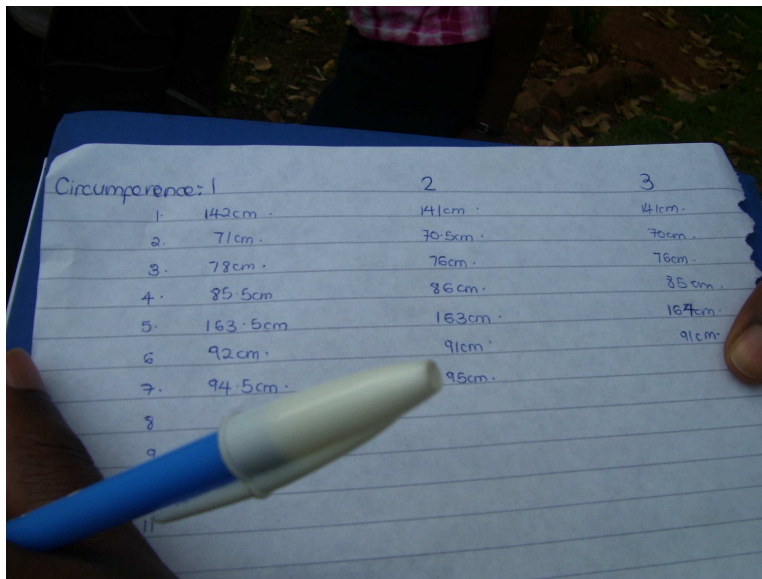
This lesson creates awareness about the environment and many of such lessons would develop a student who is positive towards our environment.



MEASURING THE CIRCUMFERENCE OF A TREE.



MEASURING THE LENGTH ON A RULER



RECORDING OF RESULTS FROM THE FIELD.

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