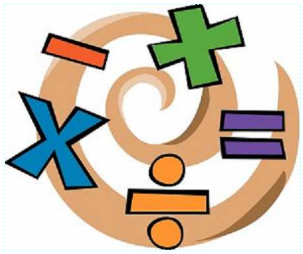
WHY ARE WE DOING MATHEMATICS IN SCHOOL?



This is one of the questions that teachers and parents are confronted with when learners struggle with Mathematics. Learners do not see the value of this subject when they do not understand what it is all about.

WHAT IS MATHEMATICS?

Mathematics is a language that makes use of symbols and notations for describing numerical, geometric and graphical relationships. It is a human activity that involves observing, representing and investigating patterns and qualitative relationships in physical and social phenomena and between mathematical objects themselves. It helps to develop mental processes that enhance logical and critical thinking, accuracy and problem solving that will assist in decision-making.

SPECIFIC AIMS WHEN TEACHING MATHEMATICS

When teaching mathematics the aim is to develop a critical awareness of how mathematical relationships are used in social, environmental, cultural and economic relationships. It also helps build confidence and competence to deal with any mathematical situation without being hindered by a fear of Mathematics. It is important to recognize the active part that Mathematics plays in human activities.

AREAS OF MATHEMATICS

1. **Pure Mathematics**
   Pure Mathematics includes abstract concepts. This plays an essential role in meeting the needs of navigation, astronomy, physics and engineering. One central concept in pure Mathematics is the idea of generality. Generality's impact on intuition is both dependent on the subject and a matter of personal preference or learning style.

2. **Applied Mathematics**
   Applied Mathematics concerns itself with mathematical methods that are typically used in science, engineering, business and industry. This means that applied Mathematics is a science with specialized knowledge. This branch of Mathematics can be used in professions that focus on solving practical problems.

3. **Discrete Mathematics**
   Discrete Mathematics is the study of mathematical structures that are fundamentally discrete rather than continuous. Concepts and notations from discrete Mathematics are useful in studying and describing objects

and problems in branches of computer science, such as programming and software development.

4. **Computational Mathematics**
   Computational Mathematics involve mathematical research in areas of science where computing plays a central and essential role, emphasizing algorithms, numerical methods and symbolic methods.

Mathematics is a subject that equips learners with a selection of skills which helps them to adapt in a world with many opportunities. Even if Mathematics is not part of your working career it is still part of your life. Mathematics can never be seen as an isolated subject. It becomes the passage into the various fields/situations and equips learners with the necessary skills to be successful.

REFERENCES

1. **Curriculum Assessment Policy Statement (CAPS)**
2. **http://en.wikipedia.org/wiki/Areas_of_mathematics**
3. **http://en.wikipedia.org/wiki/Pure_maths**
4. **http://en.wikipedia.org/wiki/Applied_maths**
5. **http://en.wikipedia.org/wiki/Computational_mathematics**