WAYS OF PERFECTING THE TEACHING OF MATHEMATICS

- Making Mathematics fun
- Marking Mathematics a daily bread
- Proper arrangement of the topics to develop the logical flow of the content
- Making the learners to know what you know (Being knowledgeable is one thing and making learners to understand what you know is another thing altogether.
- Being accountable for the learners performance
- Man marking each candidate
- Proper organization of the children`s work
- Teaching the content following the syllabus not the text books
- Being original (avoid copy and paste)
- Active evolvement of learners in the lesson.

1) HOW DO YOU MAKE MATHEMATICS FUN?

- Always create Mathematical songs to motivate the learners to learn Mathematics i.e

  (i)— x— = +

  (ii) + X += +

  (iii) — X + = —

  (iv) + X— = —

- Relate the content to learners
- Persuade the learners to love Mathematics
- Give tasks according to the ability of the learners
- Regular marking is required
- Begin teaching from known to unknown
- Distribute questions according to the ability of the learners
- Create lots of stories related with the given text which is being taught
- Inspire the learner

2) HOW DO YOU MAKE MATHEMATICS ADAILY BREAD?

- ✓ Daily practice
- ✓ Research work
- ✓ Group work
- ✓ Home work
- ✓ Work which evolves parents
- ✓ Marking budgets
- ✓ Daily recitation of multiplication tables
- ✓ Mental work should done on daily basis
- ✓ Exposure to a variety of several questions of different logic
- ✓ Use IMS on daily basis

3) HOW DO YOU ARRANGE THE TOPICS LOGICALLY

Topics must be arranged logically to allow the systematic flow of the content, It doesn`t mean that we have to flow how topics are arranged in the syllabus religiously but we can create a logical flow of the topics which fits in the syllabus appropriately.

a) How many topics are in P.7 Mathematics?
b) When are P.7 teachers expected to have completed the whole syllabus
c) Relate it with the arrangement of the curriculum
d) So what would be your opinion?
e) Check mine and also think about it

1. Integers
2. Algebra
3. Numeration system and place values
4. Operation on numbers
5. Sets
6. Number patterns and sequence
7. Fractions /Ratios and proportion/percentages
8. Measures
9. Graphs and interpretation
10. Geometry/Bearing
11. Finite system

HOW DO YOU MAKE LEARNERS UNDERSTAND WHAT WE KNOW?

A good teacher is not somebody who knows what he/she is teaching, but somebody who makes others to understand what he/she knows.

QUALITIES OF A GOOD MATHEMATICS TEACHER

- ✓ T- Trained/ time manager/trustful
- ✓ E- Exemplary/enduring
- ✓ A- Active/accommodative
- ✓ C- Commitment/creative
- ✓ H- Hardworking/honest
- ✓ E- Effective/energetic
- ✓ R- Role model/resourceful

METHODS OF TEACHING MATHEMATICS

- Participatory learning: learners are actively involved in working out solutions in their lesson.
- Practical teaching: Let the learners touch, feel and share knowledge through practical activities e.g. when teaching integers, measures, geometry etc
- Group work: Divide your class into smaller **meaningful** groups and assign tasks to be discussed. Monitor and guide challenged groups.
- Guided discovery: Help learners to discover formulae and how to apply them.

WAYS OF MAKING MATHEMATICS SIMPLER AND EASIER

- Love the subject.
- Planning together as a department to promote sharing of knowledge and supporting one another.
- Time management
- Lesson planning
- Use of active methods
- Making research (textbooks, fellow teachers, internet etc)
- Teacher pupil relationship
- Team work
- Guide learners to know meaningful multiplication tables i.e. using repeated addition.
- Be consistent while teaching. Do not skip some concepts rushing to complete the syllabus.
- Class control. Teachers should stop blaming learners for dozing or shouting in class.
- Give positive feedback to learners.
- Encourage good handwriting, neat work and work organization.
- Don't be rigid on one method even when learners have failed to get the concept.

- Give home works, remedial lessons to time takers even when you don't expect to be paid for that.
- Train learners to read instructions carefully.
- Make proper use of PLE booklets.
- Give daily revision.
- Use clear chalkboard instruments
- Respect positive criticism. Know your weakness and work to improve on them.
- Use resourceful persons.
- Stop intimidating learners but guide and counsel them.
- Be a good coach not a referee.
- Do not compare your salary with work.

Note:**Teaching counting is good but teaching what counts is the best.**

COMMON MISTAKES MADE BY CANDIDATES DURING PLE PER TOPIC

Sets:

- Completing Venn diagrams
- Proper subsets
- Probability
- Describing the un-shaded part.

Whole numbers

- Indicating place values on top
- Writing in words and figures
- Standard form/scientific notation.
- Expanding decimals using powers.
- Forming smallest numeral when given digits involving a zero.
- Bases and finite system.

Operations on numbers

- ❖ Indicating operation signs and drawing bars.
- ❖ Distributive property involving division.
- ❖ Division of big numbers.
- ❖ Grouping and re-grouping not borrowing and carrying.

Patterns and sequences

- ✓ Prime and odd numbers.
- ✓ Sum of next two numbers.
- ✓ G.C.F/G.C.D and L.C.M
- ✓ Use of square root symbol correctly. No reducing.

Fractions.

- Writing hanging fractions.
- Brackets during division of decimals.
- Changing fractions to decimals.
- Simplifying fractions.
- Use of cross multiplication instead of L.C.M

Integers

- ➢ Multiplication using a number line.
- ➢ Mathematical sentence or statement.
- ➢ Application of integers.

Data handling

- Mean of x, 3, 5 and 3x.
- Median and modal frequency.
- Application.

Geometry

- ✓ Completing diagrams when calculating angles.
- ✓ Use of sharp pencils, drawing sketch and accurate diagrams, recording given information.
- ✓ Drawing and measuring angles correctly.
- ✓ Angles in parallel lines.
- ✓ Application of angle properties e.g. what angle is $\frac{1}{8}$ of its supplement?

Money

- Completing shopping bills.
- Relationships between gm and kg.
- Bank notes, why add 1?
- Application of percentages in money.

Length, mass and capacity

- ➢ Use of wrong units.
- ➢ Misusing units.
- ➢ Relating units on metric tables.
- ➢ Volume and capacity.
- ➢ Area and circumference.

Time

- ✓ 12-hour clock to 24-hour clock.
- ✓ Duration given a.m. and p.m.
- ✓ M/sec to km/hr.
- ✓ Average speed for the whole journey.
- ✓ Travel graphs.

Algebra

- Substitution.
- Simplifying expressions.
- Solving equations involving brackets.
- Factorising completely.

NB: **No nation is better than its teachers. For God And My Country.**