

Mathematics Department



Vision of the Math Department

By the end of 6 years in TNPS,
every pupil should love Mathematics and
should be confident in solving Math
problems.



Focus of the Math Department in Primary 1

- Exploring Concept using manipulatives
- Basic Computational Skills
- Speed and Accuracy
- Problem Solving Skills
- **Positive attitude towards Math**



Exploring Concepts using Manipulatives

- Piaget, a French psychologist, believes that children actively construct knowledge through interaction with the environment (hands-on experience)
- Enhance the understanding of mathematical concepts and skills



Basic Computation Skills

Refer to simple Math Skills such as addition, subtraction, division and multiplication which one can do mentally

Eg. $4 + 5 = 9$

$$12 - 6 = 6$$



Importance of Basic Computation Skills

- Necessary to advance in Math
- Pupils must learn the skills so that they can move on to more demanding Mathematics such as algebra and geometry
- Pupils are more confident when they are good in basic computation skills.



Importance of Speed and Accuracy

- Calculation skill is a procedure and mathematical thinking is a process.
- In order to enhance the efficiency of mathematical thinking, we must keep an adequate speed of calculation.
- In fact, speed will save working memory space for thinking at a higher level.
- Speed leads to efficiency.



Problem Solving Skills

- Thinking skills such as classifying, comparing, sequencing, analysing parts and wholes, identifying patterns etc.
- Heuristics such as drawing a diagram, making a list, acting it out etc.



HOW DO YOU FEEL ABOUT MATH?



Positive Attitude towards Math

- According to research, parents' attitudes towards Mathematics have an impact on their children's attitudes toward Math and how they approach learning Math.



How you can help support your child in the learning of Math

- Be positive about Math!
 - Let your child know that everyone can learn Math.
 - Let your child know that you think Math is important and fun.
 - Be positive about your own Math abilities. Try to avoid saying, “I was never good at Math” or “I never liked Math.”



How you can help support your child in the learning of Math

- Be positive about Math!
 - Encourage your child to be persistent when he or she is solving a difficult problem.
 - Praise your child when he or she makes an effort and share in the excitement when he or she solves a problem or understands something for the first time.



How you can help support your child in the learning of Math

- Make Math part of your child's day
 - Point out to your child the many ways in which Math is used in everyday activities.
 - Encourage your child to tell or show you how he or she uses Math in everyday life.



How you can help support your child in the learning of Math

- Make Math part of your child's day
 - Include your child in everyday activities that involve Math – making purchases, measuring ingredients
 - Play games or do puzzles with your child that involve Math



How you can help support your child in the learning of Math

- Encourage your child to give explanations
 - When your child is trying to solve a problem, ask what he or she is thinking.
 - If your child seems puzzled, ask him or her to tell you what does not make sense.



How you can help support your child in the learning of Math

- Encourage your child to give explanations
 - Treat errors as opportunities to help your child learn something new.
 - Suggest that your child acts out a problem to solve it. Have your child show how he or she reached a conclusion by drawing pictures and moving objects as well as by using words.



Vision

Your child will love Mathematics and is confident in solving Math problems.

