

*Sharing by
Head of Department
Mathematics*

MATHEMATICS

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Topics covered today

- Maths Syllabus (2021)
- Learning Outcomes
- Learning experiences and programmes
- Parental Involvement

Primary Mathematics Syllabus (2021)

- Acquire Mathematical **concepts and skills** for everyday use and continuous learning in Mathematics
- Develop thinking, reasoning, communication, application and metacognitive skills through a mathematical approach to problem solving
- **Build confidence** and foster interest in Mathematics



You become successful in Math by seeing that there are just a few **big ideas that you need to **link together** and think about in depth. And once you've understood the core ideas in Math, everything kind of comes together.**

- Jo Boaler -

Big Ideas...

- ▶ Connect the ideas across topics and strands
- ▶ Deepen students' mathematical understanding
- ▶ Appreciate Mathematics
- ▶ **Coherent learning of Mathematics as a whole**

Syllabus Organisation & Learning Outcomes

The concepts and skills are organised along 3 content strands. The development of Mathematical processes, metacognition and attitudes are embedded in the learning experiences that are associated with the content.

Concepts and Skills		
Number and Algebra	Measurement and Geometry	Statistics
1. Understand numbers up to hundred. 2. Understand addition and subtraction. 3. Add and subtract numbers 4. Understand multiplication and division.	5. Identify, name, describe and sort shapes. 6. Tell time to 5 minutes 7. Measure and compare lengths of objects	8. Read and interpret picture graphs.
Processes	Learning Experiences Metacognition	Attitudes

Learning in class

- Hands-on experiences, class discussions and learning activities
- Opportunities to demonstrate what they have learnt or acquired
- Bite-sized assessment of skills and understanding
- Provide feedback on their learning formatively
- Allow teachers to adjust and customise their teaching onward to cater to their students' progress
- Work on areas that require more development

My child will learn to...



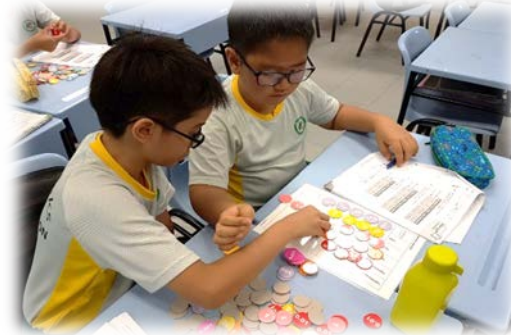
work with numbers



find patterns



be a self-directed problem-solver



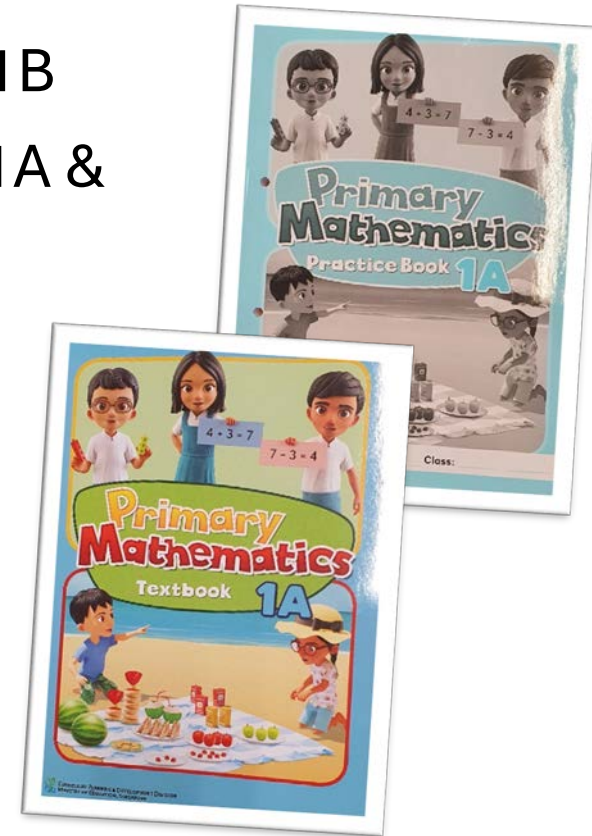
communicate ideas and reasoning

Expectations

- Listen and participate actively
- Be on task
- Be prepared (Bring the necessary books, Punctual submissions)
- Ask when in doubt
- Take pride in his/her work (Neat and accurate)
- Keep trying and do not give up
- **Enjoy learning!**

Books and Materials Used

- Primary Mathematics Textbook 1A & 1B
- Primary Mathematics Practice Book 1A & 1B
- Mathematics File with dividers (Pink folder)
- Maths Exercise Book (Broad-lined)
- Maths Worksheets
- Mini-whiteboard, duster, whiteboard marker (packed as a set in a folder)



Supplementary Digital Resource



Koobits.com
User id: SLS id
PW: koobits



10 Customised Questions

Our 10-question daily challenge adapts to your child's ability level, providing the perfect level of difficulty to keep them motivated and engaged.

Programmes for Lower Primary

Build interest and meaningful learning

- Learning Experiences using manipulatives and other learning materials through the Concrete-Pictorial-Abstract (C-P-A) Approach
- Maths Baking experiential learning
- Maths Games
- Maths Trails (Term 4)
- Learning Support for Maths (LSM)



Support for a strong foundation

- Students who demonstrate an aptitude for Maths will be engaged further in class through other challenging tasks.
- Enrichment programmes from Primary 4 onwards
- Students who require additional support are placed in the Learning Support for Maths (LSM) programme.
- Some students are also placed in smaller groups for more focused teaching.



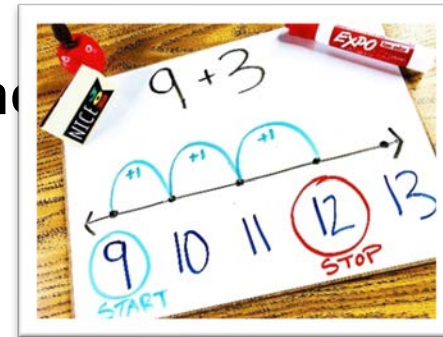
Maths Support at Home

- Work and communicate closely with your child's Maths teacher
- Monitor / Follow up on homework and review learning
- Cultivate good work presentation habits - show proper and detailed working steps
- Make it a habit to check for accuracy and reasonability after completion

Maths Support at Home

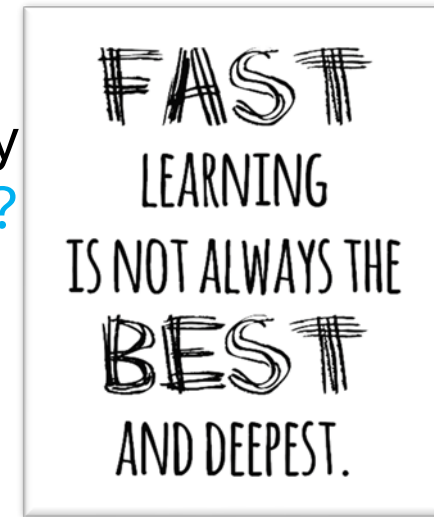
Daily/Frequent practice is important

- **Factual fluency (Quick recall of basic facts)**
 - Flash cards
 - Mini-whiteboard
 - Q & A
 - Puzzles
 - Games



Maths Support at Home

- ▶ Discuss the **strategy** with them. Help them to recall their learning.
Is this the best way? What did you learn?
- ▶ Structured and purposeful questioning to clarify
What did you see / know? What does this tell us?
- ▶ **Do not give your child the answers straight away**
- ▶ Cultivate **tenacity**
- ▶ Encourage (Praise) for **effort**



GROWTH Mindset – Carol Dweck

DEVELOPING A GROWTH MINDSET



INSTEAD OF.....	TRY THINKING....
I'm not good at this	What am I missing?
I give up	I'll use a different strategy
It's good enough	Is this really my best work?
I can't make this any better	I can always improve
This is too hard	This may take some time
I made a mistake	Mistakes help me to learn
I just can't do this	I am going to train my brain
I'll never be that smart	I will learn how to do this
Plan A didn't work	There's always Plan B
My friend can do it	I will learn from them

Emphasizing **effort** gives a child a variable that they can control. They come to see themselves as in control of their success.

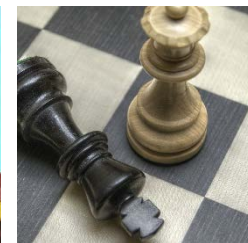
Struggles and challenges are opportunities for growth and learning.

“I can't do it, **YET.**”

Maths Support at Home

Learning through play cultivates:

- Patience, resilience and character
- Maths reasoning, communication and vocabulary
- Communication and negotiation skills
- Interpersonal and relationship management skills
- Application of Maths knowledge and skills
- Promotion of interest in Maths



Maths in the Real World

- Real-life application
- Gives meaning to the learning of Maths
- Usefulness and importance of Maths
- Builds confidence
- Allow your child opportunities to demonstrate their Maths knowledge

Eg. Supermarket, sharing and counting items, visualisation & measurement skills



Applications of skills
Relating to real-life

P2 Baking Experience

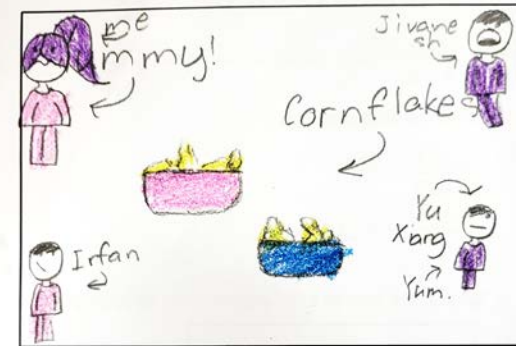
Class and parent bonding



Teamwork and communication



5. Draw and colour the honey cornflakes that your group made in the box below.



6. Which face do you think looks like you during the baking session? (Circle)

I feel this way because at home when I'm hungry I can just make it myself!

Lifeskills development



The best thing parents can do is to teach their children to love challenges, be intrigued by mistakes, enjoy effort, and keep on learning.

— *Carol S. Dweck* —

AZ QUOTES