

The materials shared in today's workshop are under the property of Junyuan Primary School, Mathematics Department.

Please do not take any photos or videos throughout the sharing.

Thank you for your understanding.

# Objectives

Partnership with parents to help their children to discover the joy of learning Mathematics.







தாத்தா - பேரன் வயது வித்தியாசம்; ஆனாலும் மலர்ந்தது நெருங்கிய பந்தம்

tamilmurasu.com.sg

மேலும் அறிய >

### Your kids aren't lazy; they just don't know how to revise independently



It is important for parents to find out why their kids procrastinate or are reluctant to hit the books. PHOTO ISTOCKPHOTO







Dr Lee, a former teacher attested : "There is no inherently 'lazy' kids."



Dr Lee, a senior lecturer in Psychology and Child and Human Development at NIE commented that some kids may lack the drive to study and become disengaged.



By labelling unmotivated kids as lazy, incorrectly implying a flaw in their character.





#### Provide a distraction - free learning environment :

- Do not use your phone when you are at their study space as that will be distracting to them. Do your own work or reading.
- Take a supportive role, offering encouragement and being there if they have questions.

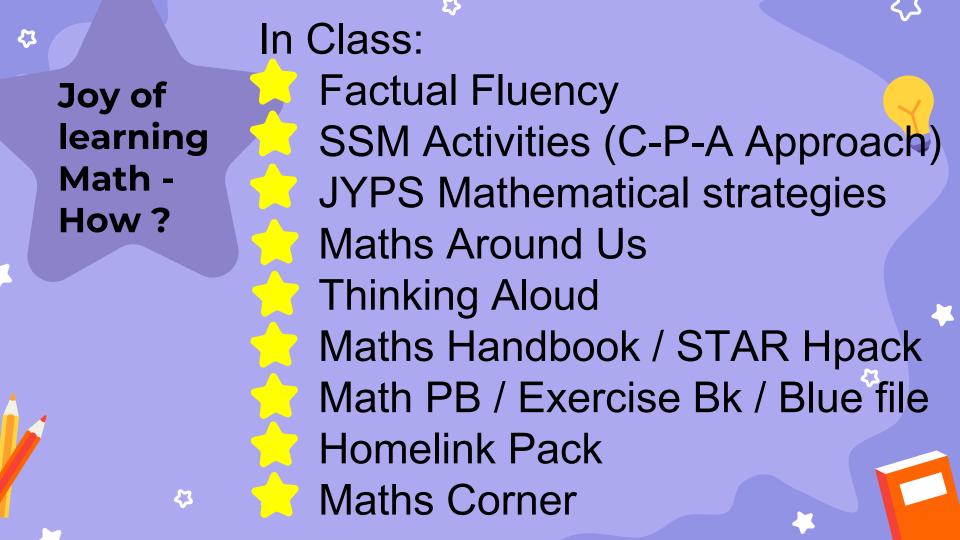
Main goal: To help your child to develop the skills and confidence to study independently as they advance in his /her education.

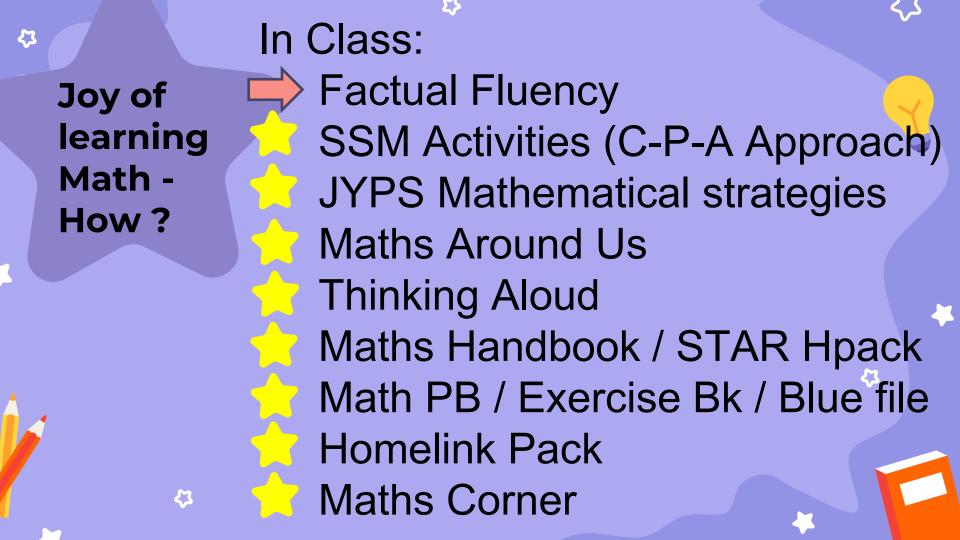




In this foundational stage in your child's formal schooling, it will be good if your child can work at being organised in getting ready for school.









Maths facts fluency refers to the to recall basic ability mathematical facts in all four operations accurately, quickly and effortlessly.

# **Factual Fluency**

Why is it useful to master factual fluency?

When students achieve automaticity with these **facts**, they have attained a level of mastery that enables them to retrieve mathematical facts without conscious effort/attention. Automaticity is the ability to do things with an automatic response pattern or habit. It is usually the result of learning, repetition and practice.

\*Factual Fluency is conducted on a frequent basis using students' mini whiteboard.







# Make 20





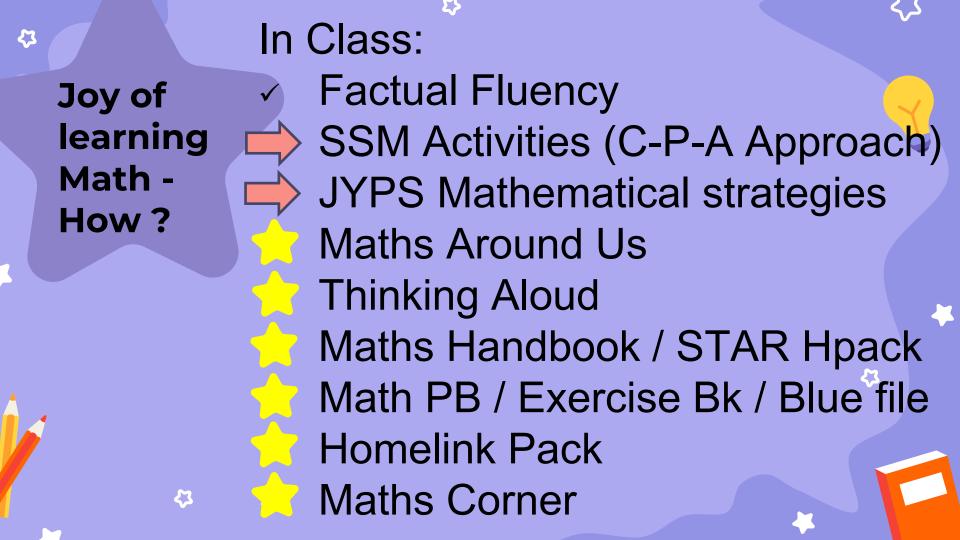












# Sustained Support for Maths Activities

Students learn Maths concepts through a series of activities using the CPA (Concrete - Pictorial - Abstract) approach to develop conceptual understanding. The activities are based on the principles of early success, strong foundations and steady progress. The focus is to provide students with learning experiences that move from concrete, to pictorial and then to abstract representations. This involves the use of manipulatives, songs, storybooks and connections to their daily experiences.



- We use VTR (Visible Thinking Routine) to uncover students' thinking about thinking
- It helps support lifelong learning
  - It develops students' awareness of their own thinking (J. B. Biggs, 1987)
  - It gives teachers an insight of students' misconceptions so teachers can address

misconceptions accordingly



## Visible Thinking Routine (VTR)

Making thinking visible through...

- See Think Wonder
- Chalk Talk
- l used to think..., Now I think
- What makes you say that?



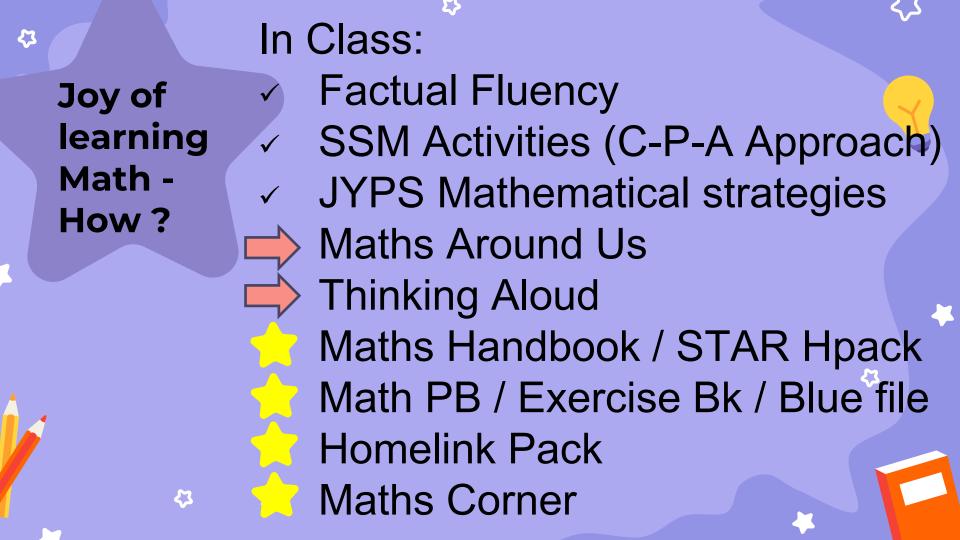


#### **SEE THINK WONDER**

- Helps students make careful observation
- Helps students develop their own ideas and interpretation based on what they see
- Encourages students to wonder and question, stimulating curiosity
  - Helps students reach for new connections



- Students describe what they see or know
- Helps students build their explanations
- Promotes evidential reasoning as it invites students to share their interpretation
  - Encourages students to understand alternatives and multiple perspective





# Thinking Aloud



Provides students the opportunity to take on a more active role of making sense of what they have learnt and to verbalise their learning with peers.





## \*Maths Around Us



- Provides opportunity for students to articulate their understanding on how the concept is used in real world context
- This allows students to clarify their own thinking, deepen their reasoning, listen to others' reasoning and consolidate their understanding.

## How to make Maths come alive?





Helping your child apply Maths concept in their daily lives, will bring meaning and joy in your child's learning.









# **Addition** and Subtraction understand concepts of within 10

Students are able to:

addition, subtraction and their relationship

- use of + , and =
- add and subtract within 10
- mental calculation involving adding and subtracting



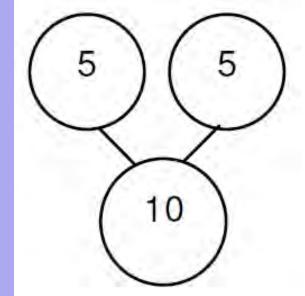
## Number Bonds

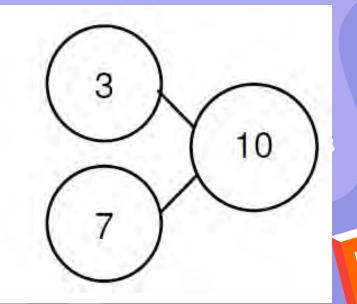
- Why is it useful to master number bonds?
- Helps students to master the basic addition and subtraction facts easily Commit the number bond facts to memory.

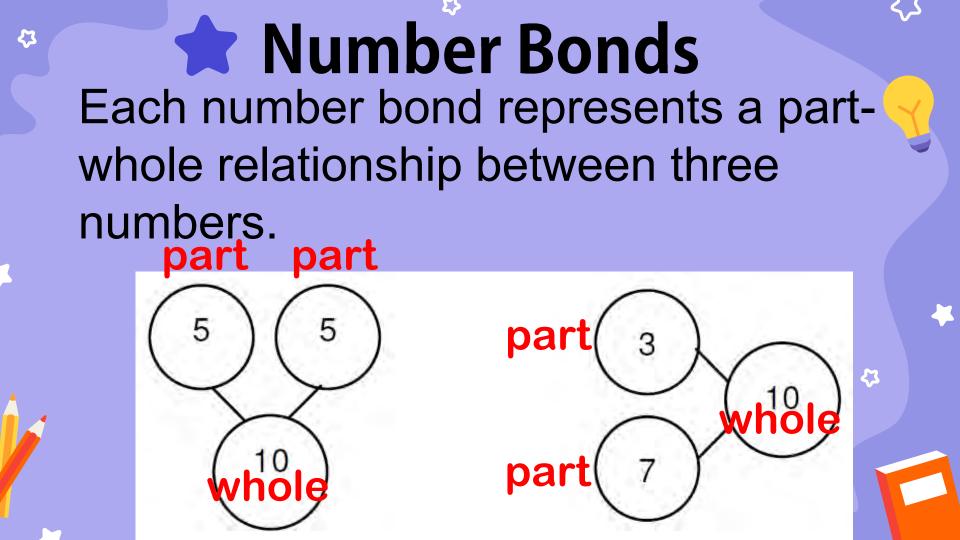
## Number Bonds

Different combinations of two numbers that make up a given number.

#### Example:



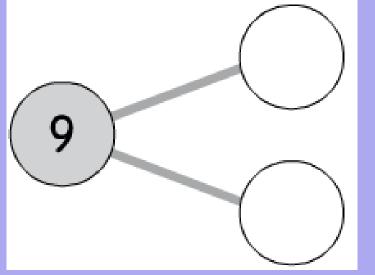




### Number Bonds

Related to a family of four basic addition and subtraction facts.

**Example of Fact Family** 



$$2 + 7 = 9$$

$$9 - 7 = 2$$

$$9 - 2 = 7$$





















### Number Bonds of 10

- 0 and 10 make 10
- 1 and 9 make 10
- 2 and 8 make 10
- 3 and 7 make 10
- 4 and 6 make 10
- 5 and 5 make 10

- 6 and 4 make 10
- 7 and 3 make 10
- 8 and 2 make 10
- 9 and 1 make 10
- 10 and 0 make 10

5+5=6+4

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#### Maths Around Us - Subtraction Within 10



After

There are 7 people in the van. 2 people get off from the van. There are 5 people left in the van.



#### **Subtraction Within 10**

#### **Concept**

 Subtraction as 'taking away' from a set using 'count back' strategy

#### Subt

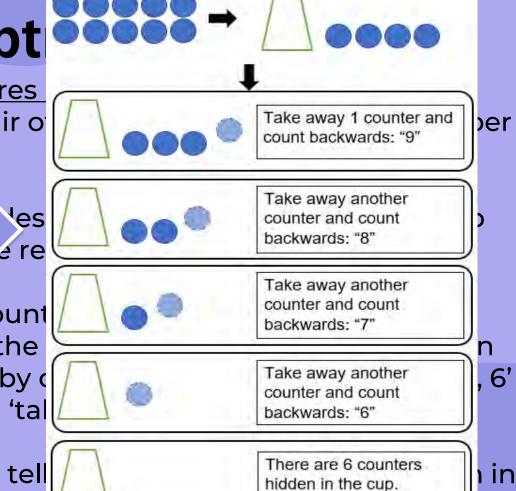
#### <u>Lesson Procedures</u>

1. Give each pair of cup.

Counting back to find number of counters in the cup

Student B count subtracting the the cup one by cas Student B 'tal

3. Student B to tell the cup.





# Thinking OAloud

Leila has 1 fewer mango than Jiahao.

Jiahao has 1 more mango than Ken.

> What do you know about the number of mangoes each child has?



Using VTR "What makes you say that?" **Guiding questions** 

- If Leila has 8 mangoes, how many mangoes do Jiahao and Ken have? What makes you say that?
- Inswer Fry to replace the number of iahao has 9 mangoes because Leila has mangoes Leila has with other fewer mango than him. Ken has 8
- ngoes/the same number of mangoes hat can you learn from this activity? The difference will still be the same

even if we use different numbers.



Students are able to:

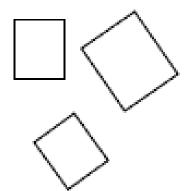
Identify and name 4

basic shapes

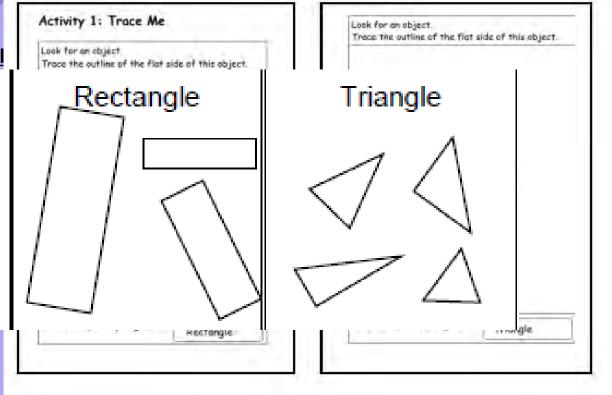


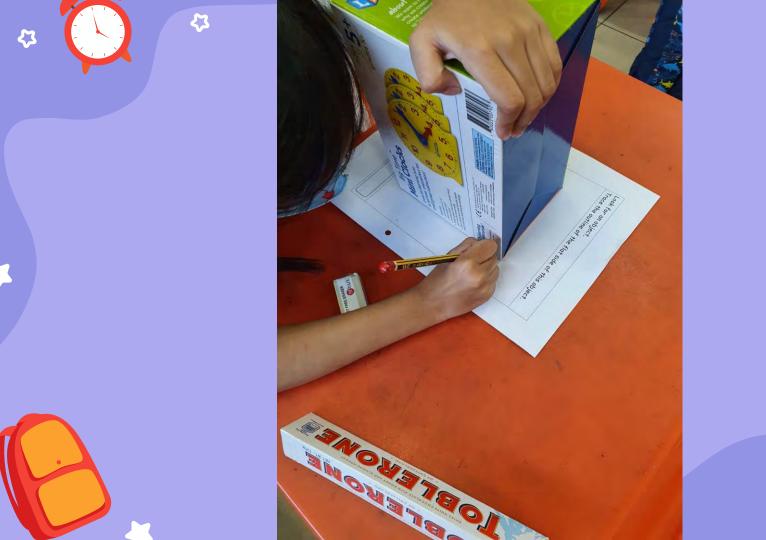
# Shapes Lesson Procedu

Square



#### Examples:





#### **Maths Around Us**



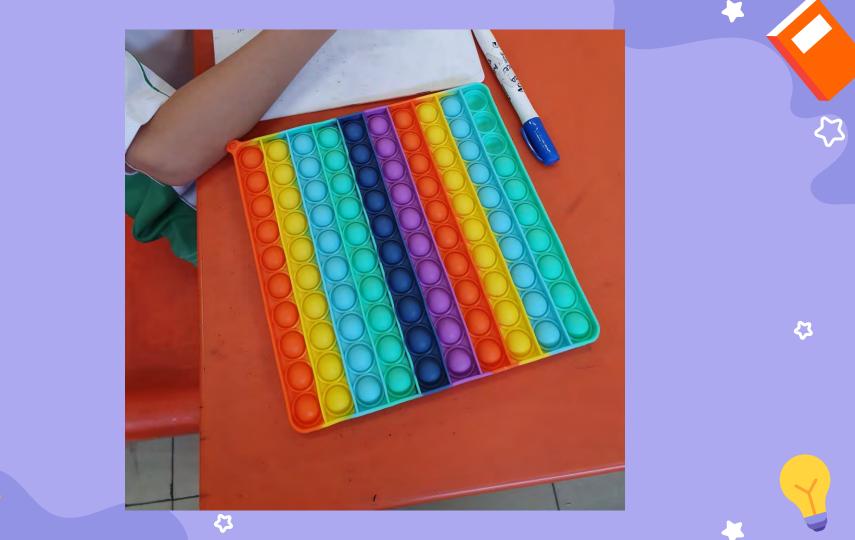
This is the newly built structure in our school. We can see shapes such as circles, squares and rectangles on this structure.

## Addition and Subtraction within 100

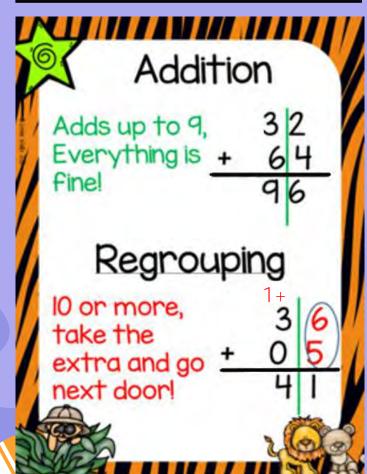
- 68 63
- <u>-17</u> -17

#### Students are able to:

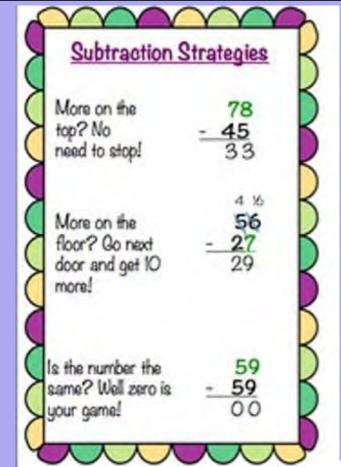
- add more than two 1-digit Conumbers
- add and subtract within 100
- use algorithm to add and subtract within 100
- mental calculate addition and subtraction within 20



#### **Addition Poem**



#### Subtraction Poem



#### **Example**

Using of base 10 set to add tens without renaming





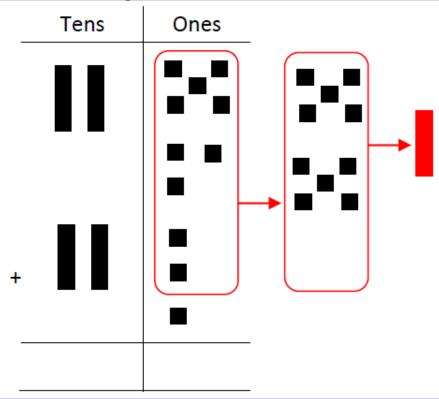
Example: 28 + 23

	Tens	Ones
+		

Working		
Tens	Ones	
2	8	
+ 2	3	



Example : 28 + 23



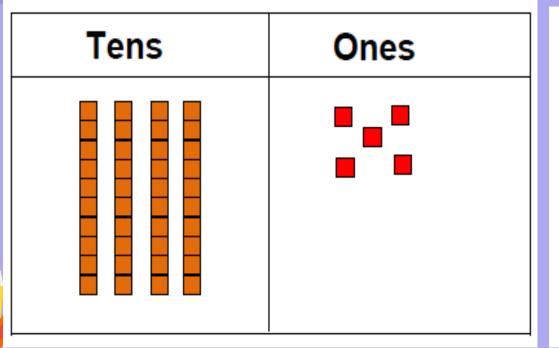
Renaming 10 ones into 1 ten



Example : 28 + 23

				Worki	ng
_	Tens	Ones		Tens	Ones
				<b>1+</b> 2	8
+			+	2	3
_			·	5	1

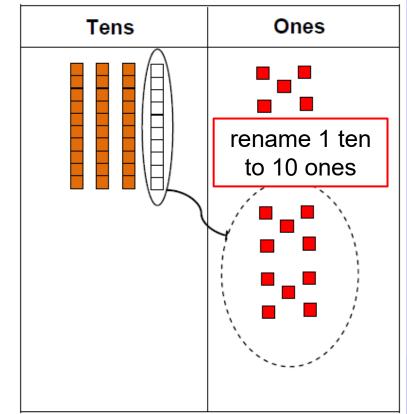




	Tens	Ones
	4	5
_		7



	Tens	Ones
	4	5
-		7









	Tens	Ones
	3	15
	¥	\$
-		7
		8

Tens	Ones
	left









	Tens	Ones
	3	15
	*	\$
_		7
	3	8

Tens	Ones
left	

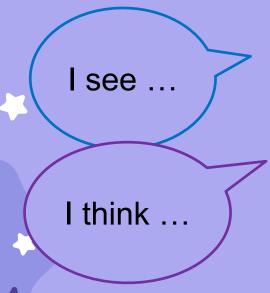
#### **Maths Around Us**

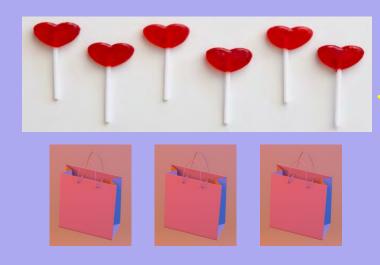
Look at what happens when a bus is at a bus stop.



- 1. What happens to the number of passengers when there are only passengers getting on?
- 2. What happens to the number of passengers when there are only passengers getting off
- 3. When a bus is at the bus stop, can we know immediately if there are fewer or more number of passengers than before?
- 4. Write an addition/ & subtraction story when there are 50 passengers in the bus before it stopped at the bus stop.





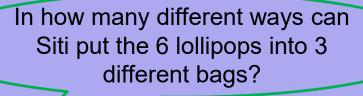






### **Thinking Aloud**





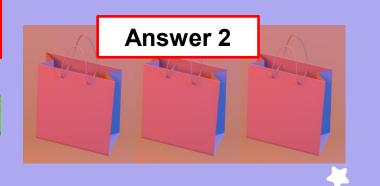




Siti wants to pack 6 lollipops into bags for the lucky draw winners at her birthday party.





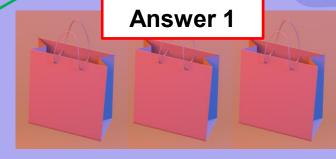




### **Thinking Aloud**



In how many different ways can Siti put the 6 lollipops into 3 different bags?



Siti wants to pack 6 lollipops into bags for the lucky draw winners at her birthday party.

She has 3 bags to pack the lollipops equally into each bag.





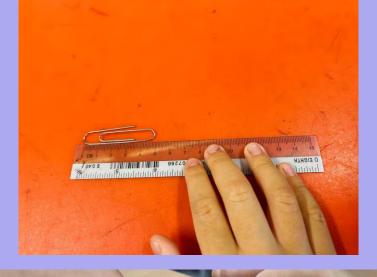




Students are able to:
Compare and order

lengths in cm

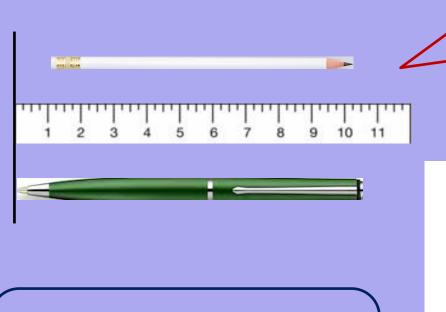












How would you describe the length of these objects?
Which is the longest?

How do you know if these objects are of the same height?





### **Maths Around Us**







Which measuring tool will you use to measure a soccer ball to find out if it can fit a locker?

Which measuring tool will you use to measure the whiteboard / your waist? What makes you say that?



### **Maths Around Us**





Which measuring tool will you use to measure your <u>waist</u>?

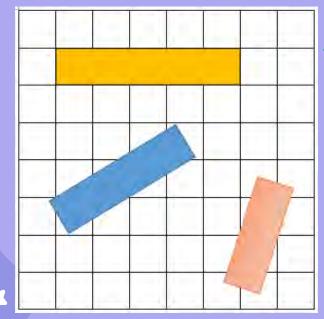


What makes you say that?

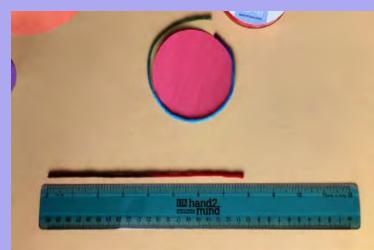


classpoint.app

## **Thinking Aloud**



What makes you say that the pink tape is the shortest?





How can we measure the length around a round object?

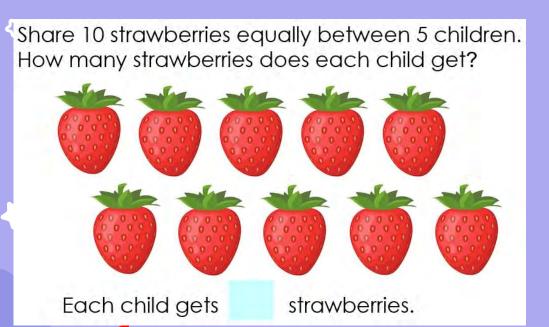




Students are able to: understand concepts

of division divide within 20





**Sharing** concept

Grouping concept

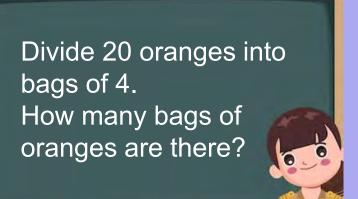


#### **Maths Around Us**

Party packs You have 6 friends attending your birthday party. If you have 30 sweets, how many sweets should you give to each friend equally?







# Thinking Aloud

What does it mean by 'bags of 4'?

4 + 4 + 4 + 4 + 4 = 20 There are 5 bags.

Ken



What makes you say that Ken is correct?

Jiahao

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5 groups of 4 make 20. There are 5 bags.

There are 4 bags. 4 bags of 5 make 20.

Are the children correct?

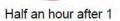


#### Students are able to:

- tell time to 5 min
- use 'am' and 'pm'
- use abbreviations h and min
- tell duration of one hour / half hour





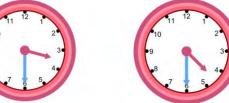




Half an hour after 2



Half an hour after 3



Half an hour after 4



Half an hour after 5



Half an hour after 6



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#### Maths Around Us







What time do we have breakfast? Which part of the day is breakfast?



An old lady knits with great speed.
30 minutes is all she needs.
She decorates her work with
buttons for half an hour.
At 10:30, she is done.
What time did she start her
knitting?



What do you see in the picture?



What do you think is happening?

What questions do you wonder about the scenario?



Students are able to count the amount of money:

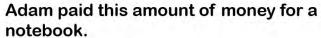
in cents up to \$1

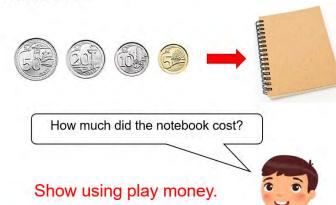
in dollars up to \$100



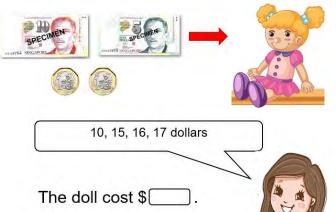








#### Mary paid this amount of money for a doll.





## **Maths Around Us**





Saving money

How much money do you have in your savings?
How much more money do you need to buy a
toy?

## **Thinking Aloud**

Who has more money?

How do you know?

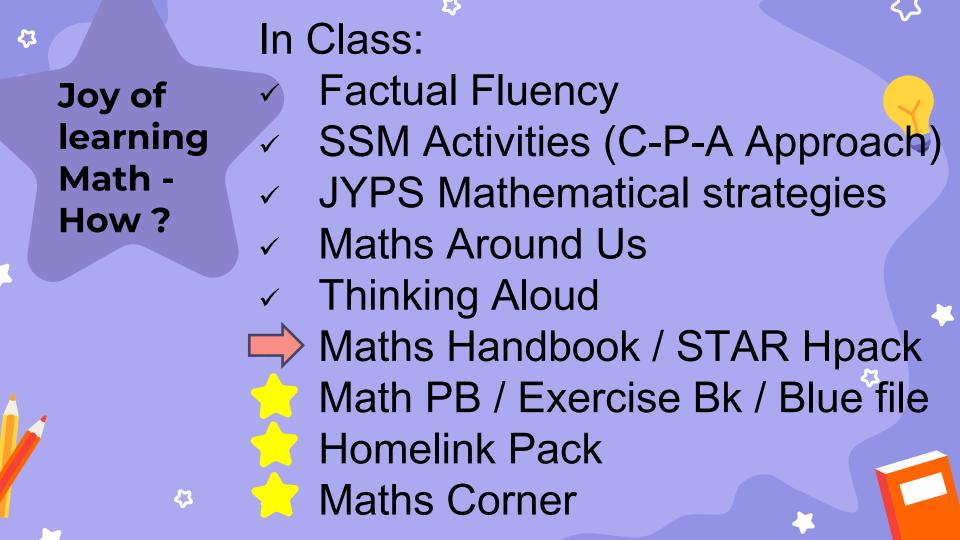
Why do you think the boy says he has more money than the girl?

I have 5 coins.
I have more
money than you.

I have 4 coins.
I have more
money than you.



Who has more money? Give me examples why you say that.





## Maths Handbook

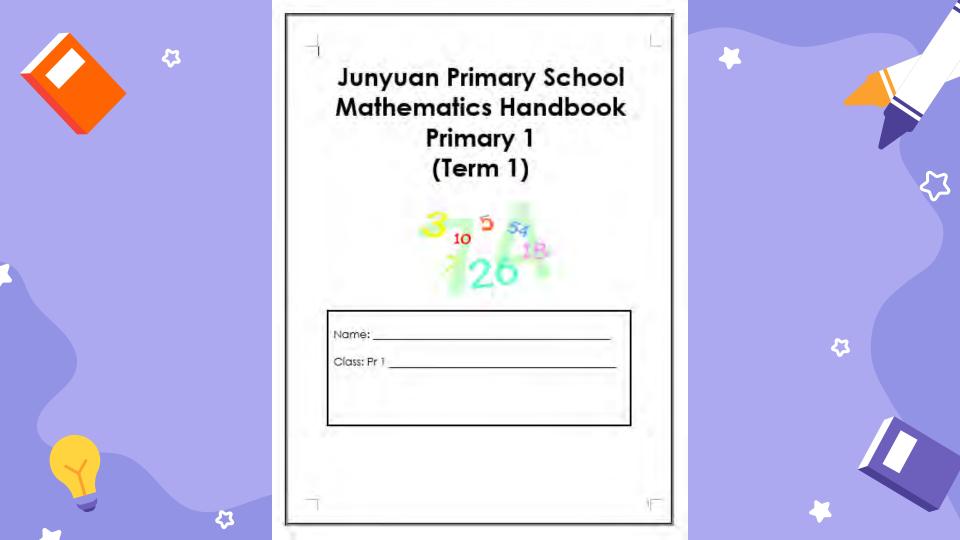
Maths Handbook(HB) is created to help summarise important concepts students need to attain in each topic for each term.

Provides students a form of revision. Some teachers keep the Maths HB in school for students to revise when they have completed their work.

File handbook into the orange file

Orange file is kept in class lockers to be used in class as fillers or kept at home for revision





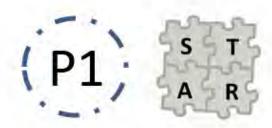


- STAR Heuristics Package (STAR Hpack) is created to teach students the methods to solve word problems.
- Develops students' logical thinking and ability to solve difficult problems.
  - To be filed into blue file at the end of the year



JUNYUAN PRIMARY SCHOOL MATHEMATICS





NAME: \_\_\_\_\_ CLASS: P1

#### Starts in term 3

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See what is given

Think of a plan

Act on the plan

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Relook and Check



#### Key Questions to ask when solving word problem

#### See (What is given?)

- 1. Can I retell the problem in my own words?
- 2. What am I asked to find?
- 3. What are the key words?

#### Act (What do I need to do?)

- 1. Can I carry out my plan?
- 2. Can I show the steps correctly?
- 3. Can I show the steps clearly?

#### Think (What is my plan?)

- 1. Have I solved the same type of problem before?
- 2. What method(s) can I use?
- 3. Can I solve a part of the problem first?

#### Relook (Reflect and Check)

- 1. Does my method make sense?
- 2. How do I know?
- 3. Is my working/diagram/model accurate?
- 4. Have I checked my solution thoroughly using the COURT strategy?



- COPY; Copy data correctly
- OPERATION; use the correct operation
- U UNIT; write the correct unit in the answer
- R REASONABLENESS; answer is reasonable \*
- TRANSFER; answer correctly onto the answer space





#### What is COURT?

- C COPY: Copy data correctly
- **O OPERATION**: Use the correct operation
- U UNIT: Write the correct unit in the answer
- R REASONABLENESS of answer
- T TRANSFER answer correctly onto the answer space

How to check your Mathematics solution.

Use COURT to check your working steps

#### SAMPLE:

Claudia bought a water bottle and a school bag. The water bottle cost \$14 and the school bag cost \$60 more than the water bottle. How much did she pay for the school bag? \$60 -> R J-UNIT-Write correct unit





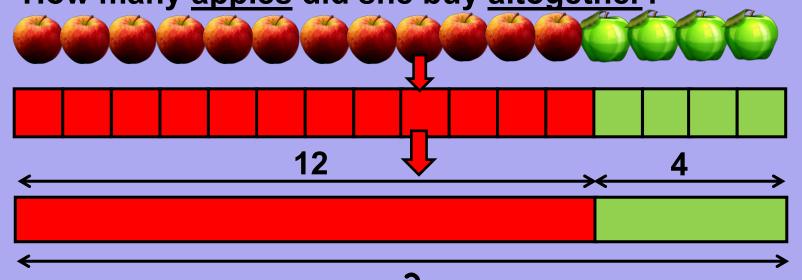


No.	Heuristics
1	Act it out
2	Look for pattern
3	Model Drawing - part - whole



# Problem-Solving Approach: STAR Part-Whole Model Problem 1

Mother bought 12 red apples and 4 green apples. How many apples did she buy altogether?



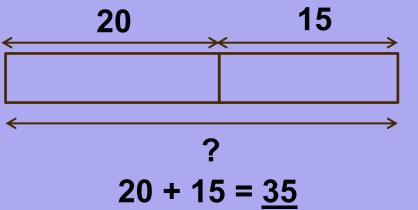
 $12 + \overset{?}{4} = \underline{16}$ She bought <u>16</u> apples altogether. U∣√

# Problem-Solving Approach: STAR Part-Whole Model

Let's try this.

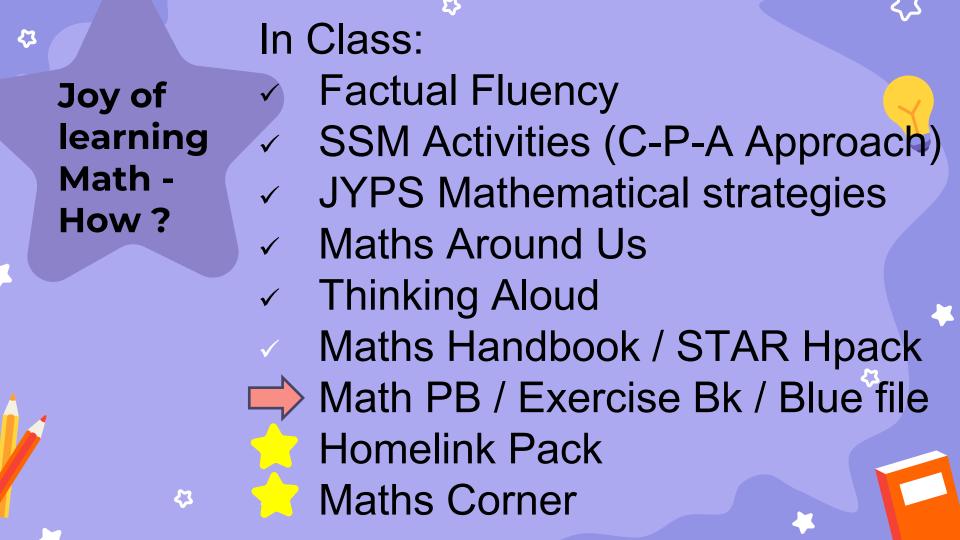
There are 20 red fishes and 15 green fishes in the tank.

How many fishes are in the tank altogether?



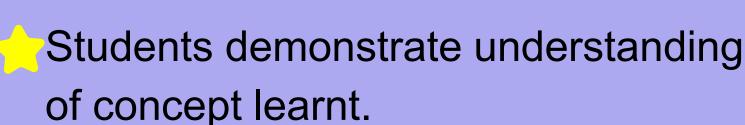
There are <u>35</u> fishes in the tank altogether.



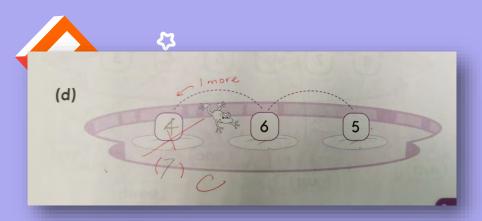




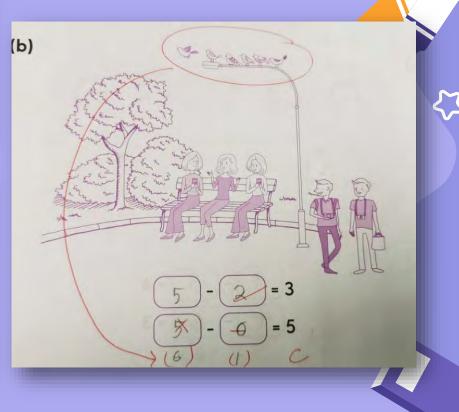
## Practice Book



- Incomplete correction is indicated either at the front or back of the practice book.
  - Parent's signature after every chapter









## Maths Exercise Book

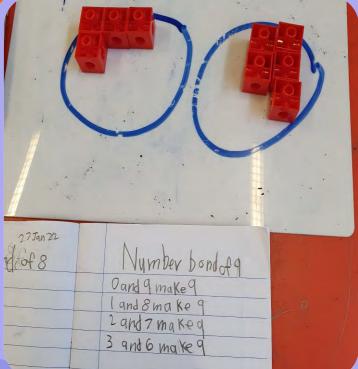


Students practise Maths concepts taught.





\*\*\*



Make 6 O and 6 make 6 1 and 5 make 6 2 and 4 make 6 3 and 3 make 6 4 and 2 make 6 5 and I make 6 6 and 0 make 6



## **Blue File**

- File SSM activity sheets or other Maths worksheets into the blue file
- Termly parent's signature

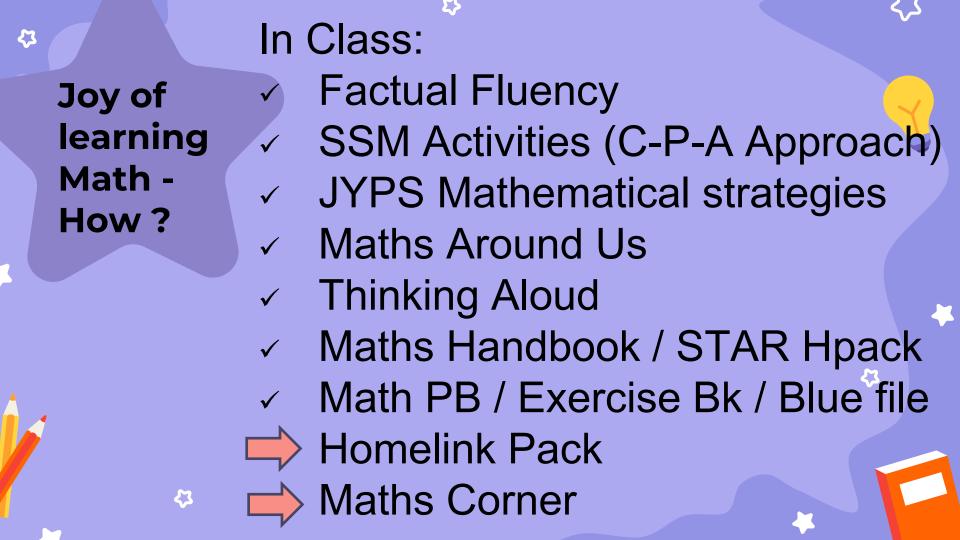
JUNYUAN PRIMARY SCHOOL MATHEMATICS FILE Semester 1 2022			
Worksheet		Filed	2
Num	bers to 10	riled	Teacher's Remarks
Activity 1 : Comparing Numbers (1)		-	
Acts by 2 Companing Numbers (2)		~	
The second secon		V	
Addition & Su Addition : Activity Sheet 1	btraction with	in 10	
		TVT	
Subtraction : Activity Sheet 1			
S	hapes	-	
Activity Sheet 1	mpo3		
Activity Sheet 2		1	
Activity Sheet 3			
Ac vity Sheet 5			
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Sheet 1: Order of Objects (1)	The state of the s		
ctivity heet 2 Order of Objects (2)			
ctivity She Service of Activities			
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JUNYUAN PRIMARY SCHOOL MATHEMATICS FILE Semester 1 2022

s/n Worksheet Teacher's Remarks Numbers to 10 1 Activity 1 Comparing Numbers (1) 2 Activity 2 Comparing Numbers (2) Addition & Subtraction within 10 3 Addition : Activity Sheet 1 4 Subtraction : Activity Sheet 1 V Shapes 5 Activity Sheet 1 V 6 Activity Sheet 2 7 Activity Sheet 3 8 Activity Sheet 5 9 Activity Sheet 6 10 Activity Sheet 8 11 Activity Sheet 10 Ordinal Numbers 12 Activity Sheet 1 : Order of Objects (1) 13 Activity Sheet 2 : Order of Objects (2) 14 Activity Sheet 3 : Sequence of Activities

Parent's Signature (Term 1):

Date: 16-03-2022





## \* Homelink Pack \*

**HOMELINK** is a package designed to allow students to make use of class manipulatives at home to reinforce the concepts they have learnt in school. Parents are encouraged to play the games or do the activities at home with their children. The manipulatives are kept in their yellow zipped file before they bring it home. Students also learn to be responsible by keeping the manipulatives properly after use and returning them on time.



## HOMELINK 1 – NUMBERS TO 10



Activity	Objective	Materials	Instructions	Pictures
1	relate number     of dots to     corresponding     numerals     without     counting	1 set of dot cards     1 set of number cards	<ol> <li>Number of players: 2</li> <li>Place all the dot cards and number cards face down.</li> <li>Player takes turn to flip over 1 dot card and 1 number card.</li> <li>If the two cards match, the player keeps the cards. If not the player turn the card face down again.</li> <li>Play continues until all the cards have been paired up.</li> <li>The player with the most cards wins the game.</li> </ol>	Dot Cards Number Cards



#### **Maths Corners**













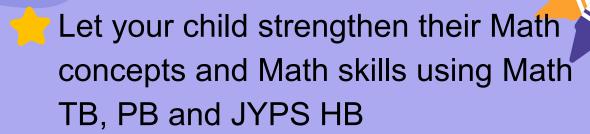


#### **Maths Corners**





# Partnership in Action



- price of the contraction of the
- The Ensure written homework is done
- Ensure SLS and Koobits assignments are completed
- Sign practice book and blue file when brought home and try to go through their corrections





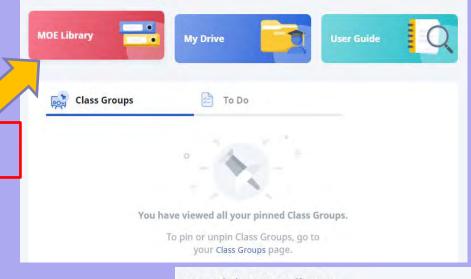
# Empower Students to be Self Directed Learners via SLS

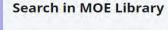






#### **Student Learning Space (SLS)**





43



**GUIDED SEARCH** 

FILTER 3



#### Student Learning Space (SLS)

The P1 students have SLS lessons for Maths Around Us

For example, P1: Ordinal numbers, Multiplication
 Parents are encouraged to help their children to work on these SLS lessons.





## KooBits

member.koobits.com

#### Latest CP Submitted

School	Latest CP	Submission Time
UST Angelicum College	3	10:07, 2023-Mar-29
Cembo Elementary School	1	10:07, 2023-Mar-29
Madrasah Wak Tanjong Al-Islamiah	2	10:07, 2023-Mar-29
West Rembo Elementary School	1	10:07, 2023-Mar-29
	Cembo Elementary School  Madrasah Wak Tanjong Al-Islamiah	Cembo Elementary School 1  Madrasah Wak Tanjong Al-Islamiah 2







#### Daily Challe nge



#### Daily Challenge - Math

10 personalized questions per day

Opening Hours:

6am to 10pm, Monday to Saturday

Total Ons

Rewards

17 CPs (Full Score)

Start Challenge



#### Super Vision Challenge

Opening Hours:

6am to 10pm, Monday to Saturday

Score of the Week

Start Challenge



#### Super Speed Challenge

Opening Hours:

6am to 10pm, Monday to Saturday

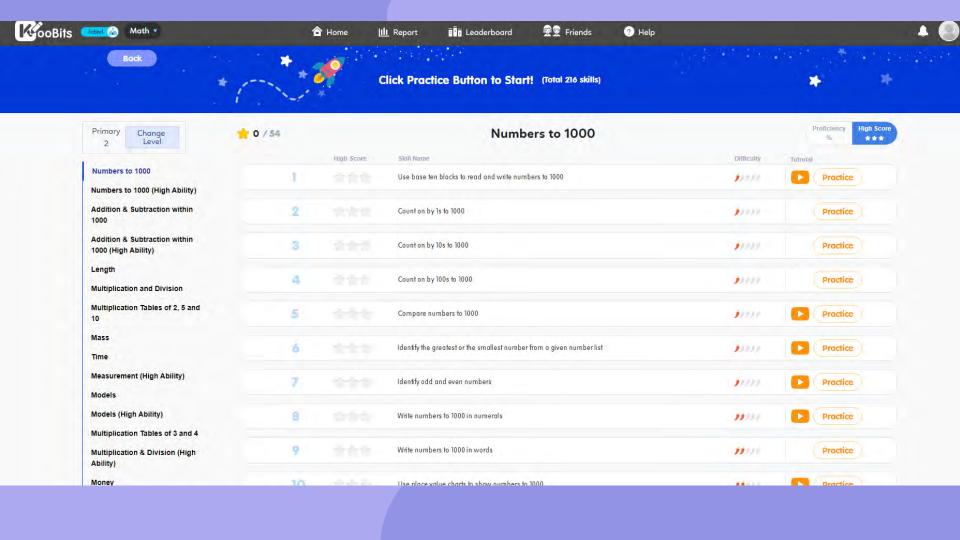
Score of the Week

Start Challenge











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## 1) Q & A

# 2) Feedback

https://forms.moe.edu.sg/forms/J69a9r





# Thank you!

