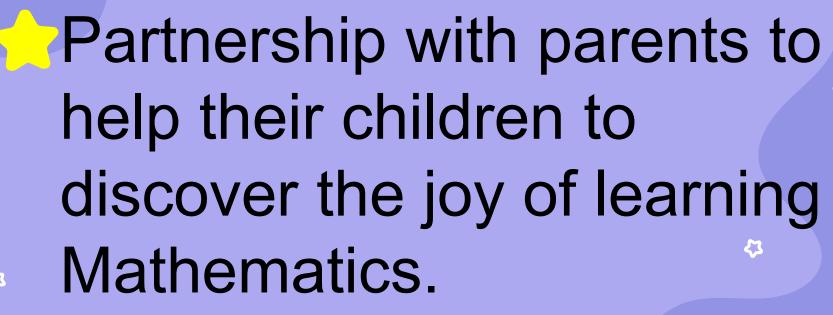


The materials shared in today's workshop are under the property of Junyuan Primary School, Mathematics Department.

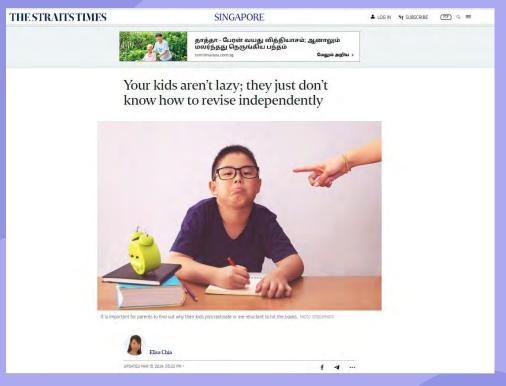
Please do not take any photos or videos throughout the sharing.

Thank you for your understanding.

## Objectives







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.

## To support your child's learning at home, you can...

- 1) 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.
- 2) 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.



In Class: **Factual Fluency** Joy of SSM Activities (CPA Approach) **learning** Math JYPS Mathematical strategies How? Maths Around Us Thinking Aloud Maths Handbook / STAR Hpack Blue file / Practice Book Maths Exercise Book Homelink Pack / Maths Corner



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.





## 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 hinge on the principles of early success, strong basics and steady progress. The focus is to provide students the learning experiences from concrete, to pictorial and then to abstract. This involves the use of manipulatives, songs, storybooks and touching on their daily experiences.

#### Hands-on Activity Sheet

#### Measuring Length in Metres

You need a string which is 1 m long.
 Put a ✓ in the correct box.

	Less than 1 m	More than 1 m
My height		
My reach		
Length of my desk		
Breadth of my desk		
Height of my desk		
Height of my chair		

2. You need a string which is 1 m long.
Estimate and then measure the following lengths.

	My estimate	My measure
Length of the whiteboard	about m	about m
Length of the noticeboard	about m	about m
Length of the teacher's table	about m	about m
Length of the window	about m	about m
Width of the door	about m	about m
Distance from the teacher's table to the door	about m	about m









## Fractions





- The concept of fractions is introduced at Primary
   2.
- Use everyday examples to make sense of the language and notation of fractions.
- Students should be able to use and understand the meaning of numerator and denominator when writing fractions.

#### **Introduction to Fractions**



#### one-half

The whole is cut \$\pi\$ into 2 equal parts.



1 part



**Denominator** • • • (total number of equal parts)

2 equal parts

## Volume Students are able to:

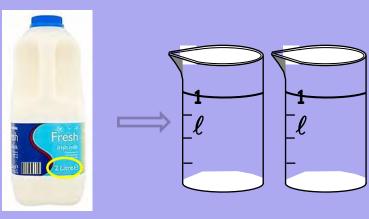
- → Measure volume of the second contract water in litres
- → Compare and order volumes

## Using everyday examples to teach volume.





Do not compare the volume of liquid based on level of the water in the containers.



Use of measuring cylinders to measure volume of liquid in litres.



## Mass

### Students are able to:

- Measure in kilograms / grams
- Compare and order masses

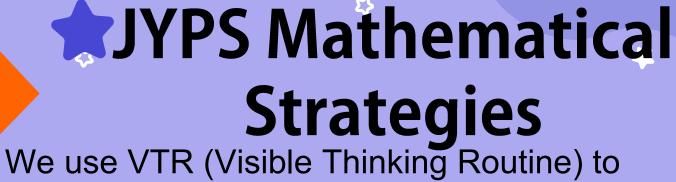
## Using weighing scales for the topic of Mass











- We use VTR (Visible Thinking Routine) to uncover students' thinking about thinking (Metacognition)
- 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
- I 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

# What makes you say that?

Look at the following.

Do you measure the mass of each of them in kilograms or grams? Why?

Write the missing unit, g or kg for each of them.

























## 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.



## **Thinking Aloud**





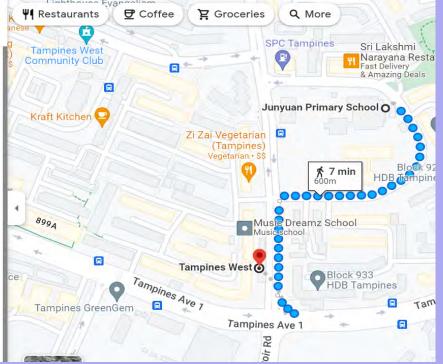


I wonder how many sets should I buy for a party of 30?



## **Thinking Aloud**

from Junyuan Primary School, 2 Tampines Stree... to Tampines West 7 min (600 m) via Tampines Street 91 and Tampines Ave 4 Mostly flat Use caution-walking directions may not always reflect real-world conditions Junyuan Primary School 2 Tampines Street 91, Singapore 528906 Head southeast on Tampines Street 91 350 m Turn left onto Tampines Ave 4 160 m Slight left onto Tampines Ave 1 48 m



https://www.google.com.sg/maps/dir/Junyuan+Primary+School,+2+Tampines+Street+91,+Singapore+528906/Tampines+West+MRT+Station/@1.3464705,103.9371541,17z/am=t/data=!4m14!4m13!1m5!1m1!1s0x31da3d14ee960ac3:0x212d15b72926a1c9!2m2!1d103.939981!2d1.3479731!1m5!1m1!1s0x31da3d1545bc6f07:0xdba5666c12a8354a!2m2!1d103.9382061!2d1.3455617!3e2



## \*Maths Around Us



Provides opportunity for students to articulate their understanding on how the concept is used in real world context





## How to make Maths come alive?





#### **Maths Around Us**

Tom took photos of different weighing scales. What do you think they are used for?





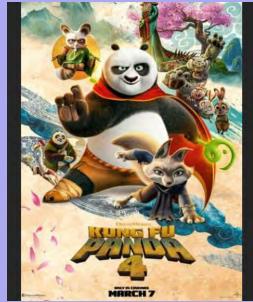


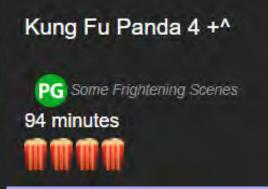
#### Time

#### **Maths Around Us**



source: sgtrains.com





source: https://www.gv.com.sg/GVMovies

How many hours and minutes are there in 94 minutes?





#### Money

### **Maths Around Us**











\$2.90

Freshtrop Green Seedless Grapes 500g

\$1.55

Pasar Sweet Corn

2 per pack



https://www.liveyoungandwell.com/reviews/cheap-grocery-singapore/https://www.fairprice.com.sg/





#### Money

Where else can we get the children to learn the topic on Money in our daily lives?

What math skills will we be teaching them?

classpoint.app





# Let's take a short break!

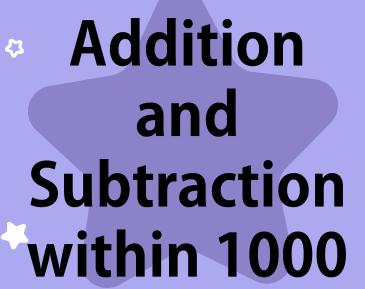




**Knowing the** concept of each Math topic well, will help your child to enjoy their Math learning.





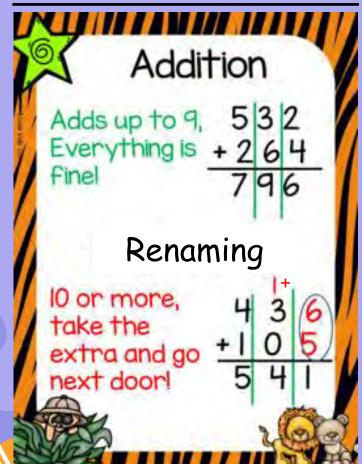


Students able to add and subtract:

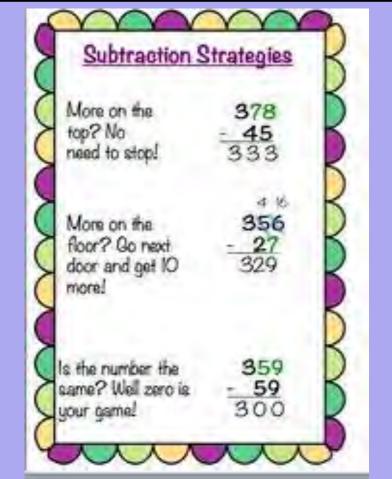
- up to 3-digit numbers
- using algorithm



#### **Addition Poem**



#### Subtraction Poem



## **Addition & Subtraction**

Inappropriate methods that confuse

students

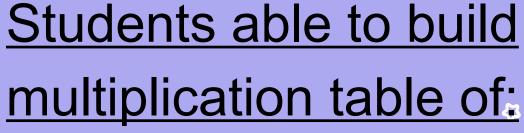
otaa	Citto	3	10
	7	¥	3
-	2	8	6

<b>.</b> .			- 1	
)		7	4	3
	•	2	8	6





# Multiplication Tables of 2, 5 and 10



**★**2, 3, 4, 5 and 10



# **Interactive Foldables**









# **Problem-Solving Approach: STAR**

**Model Drawing** 

# Comparison Model



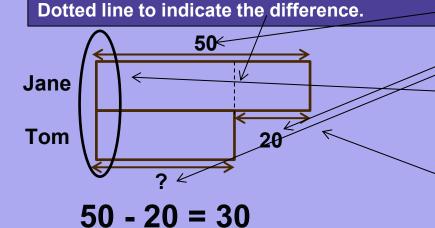
# Problem-Solving Approach: STAR Comparison Model

Jane has 50 stickers.

Tom has 20 stickers fewer than her.

How many stickers does Tom have?

Use the given numbers to label the models and use the question mark to represent the number that you need to find.



Tom has 30 stickers.

Comparison
Models to have
a common
starting line.

Unit with greater value is longer.
Unit with smaller value is shorter.

С	<b>✓</b>	٩
0	<b>✓</b>	
U	<b>✓</b>	
R	<b>✓</b>	
Т	✓	

#### 2-Step Word Problems

#### **Model Drawing**

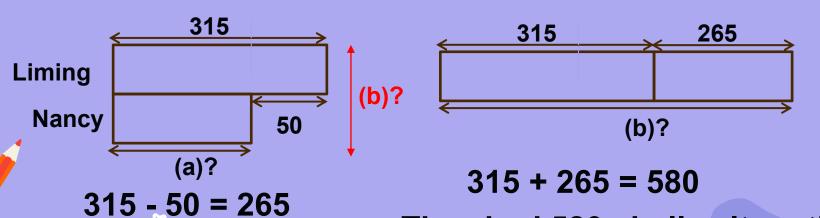
Break down models for introduction at P2

Liming had 315 shells.

Nancy had 265 shells.

Nancy had 50 shells fewer than Liming.

How many shells did they have altogether?



They had 580 shells altogether.

#### 2-Step Word Problems

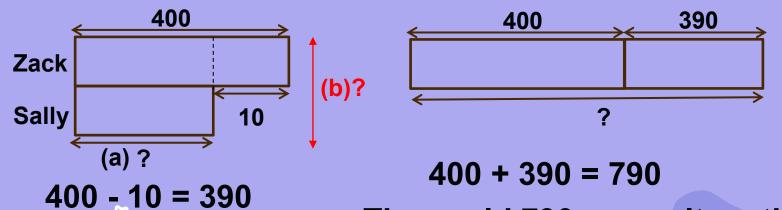
#### **Model Drawing**

Break down models for introduction at P2

Zack sold 400 eggs.

He sold 10 more eggs than Sally.

How many eggs did they sell altogether?



Sally sold <u>390</u> eggs.

They sold 790 eggs altogether.



### **Multiplication Word Problems**



# Multiplication





# **Multiplication Word Problems GET**



# Applicable when students are faced with a word problem involving multiplication / division

- G Number of Groups which is represented by the number of boxes.
- E Number of items in Each group which is represented by the value of each box.
- T Total value of all boxes.





### **Multiplication Word Problems**

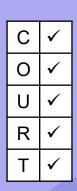
Sherin bought 6 bottles of milk.

Each bottle cost \$5.

How much did she pay altogether?

G E T

6 x \$5 = \$30 She paid <u>\$30</u> altogether.







#### **Division Word Problems**

Jane had 32 stickers.

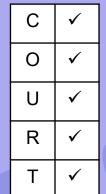
She pasted 8 stickers on each page of her album.

How many pages did she paste her stickers on?

**GET** 

$$32 \div 8 = 4 \div \times$$

She pasted her stickers on 4 pages.





#### **Division Word Problems**

Let's try this.

There are 30 flowers to be planted into 6 pots.

How many flowers are there in each pot?

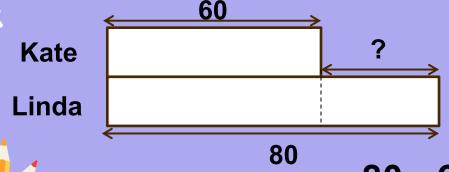


Model Drawing Comparison Model

Example 1

Kate baked 60 cakes. Linda baked 80 cakes.

How many more cakes did Linda bake than Kate?



80 - 60 = 20

Linda baked 20 more cakes than Kate.



#### Let's practise together!

**Example 4** Yanlin has 24 chocolate bars.

She puts 4 chocolate bars into the goodie bags equally.

How many goodie bags will she need?

? 4 24

**GET** 

 $\div$   $\star$   $\times$ 

She will need 6 goodie bags.

 $24 \div 4 = 6$ 









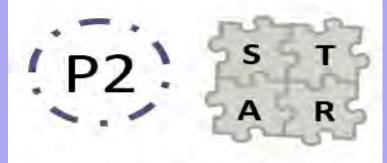


## **Problem-Solving Approach: STAR**

JUNYUAN PRIMARY SCHOOL MATHEMATICS



SEE ~ THINK ~ ACT ~ RELOOK



SEMESTER 1 - PUPIL'S COPY

NAME :

#### Starts in term 2

43



# **Problem-Solving Approach: STAR**

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

#### 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?



#### Problem-Solving Approach: STAR What is COURT?

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



## Problem-Solving Approach: STAR

No.	Heuristics
1	Whole Numbers – Act it out
2	Whole Numbers – Working backward
3	Whole Numbers – Look for pattern



### **Problem-Solving Approach: STAR**

The figure below is made up of 12 sticks. Move 4 sticks to get only 3 triangles.



See (What is given?)

## Act it out

Think (What is my plan?)

Can I act it out?
Can I look for a pattern?
Can I draw a part-whole model?
Can I draw a comparison model?

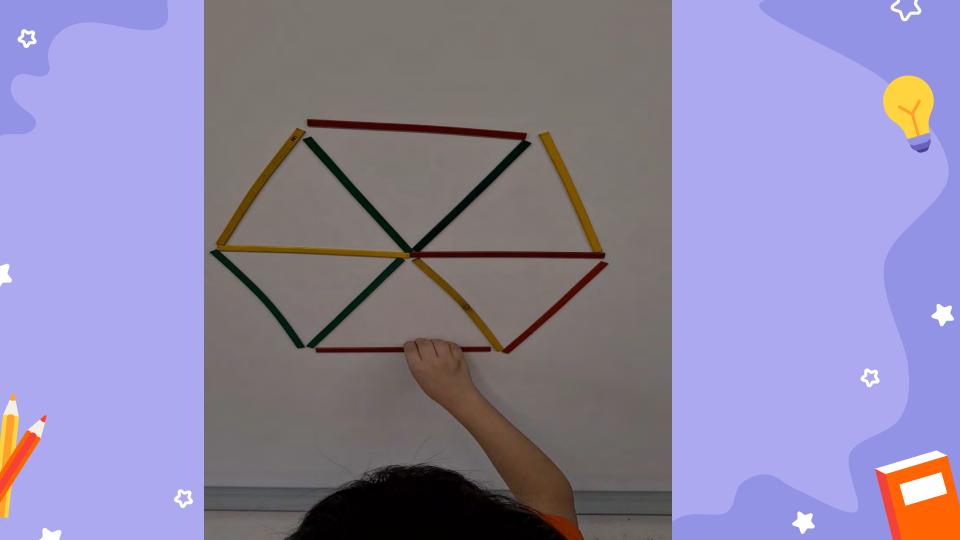
Act (What do I need to do?)

Relook (Reflect and Check)

С
0
U
R

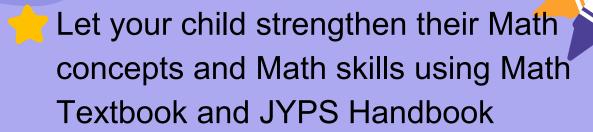


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# Partnership in action





Carrier Ensure written homework is done

Ensure SLS and Koobits assignments are completed

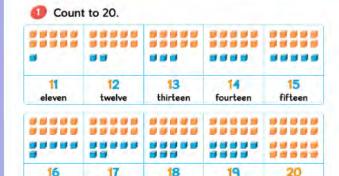
Sign practice book and blue file when brought home and try to go through their corrections



# How to understand the Math concepts better

43

#### What Have I Learnt?



eighteen

nineteen

twenty

Count by making a group of 10 first.

seventeen

sixteen



Compare and order numbers.



There are 8 fewer yellow cubes than purple cubes. There are 8 more purple cubes than yellow cubes.









The greatest number is 19.
The smallest number is 7.

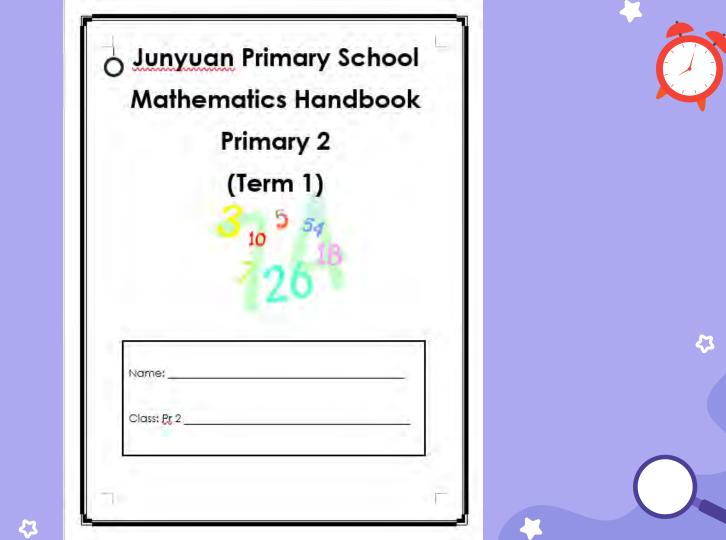
I arrange the numbers beginning with the greatest: 19, 15, 10, 7.



I arrange the numbers beginning with the smallest: 7, 10, 15, 19.









#### **Maths HB**

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 to be kept at home for revision/ in locker as fillers to do in class.



## **Blue File**

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

	JUNYUAN PRIMARY MATHEMATICS I Semester 1 202		
	Worksheet	Filed	Y
	Numbers to 10		Teacher's Remarks
	Activity 1 - Comparing Numbers (1)		
	Activity 2 - Commonting (1)	1	
	Activity 2: Comparing Numbers (2)	V	
	Addition & Subtraction v	100	
	Addition : Activity Sheet 1	within 10	
		~	
	Subtraction : Activity Sheet 1		
Class)	Shapes	-	
5 2	Activity Sheet 1		
		V	
	Activity Sheet 2		-
	Activity Sheet 3		
	Ac vity Sheet 5		
Selfoot. Subject:	imburs  A 1 Order of Objects (1)		
	ctivity heet 2 Order of Objects (2)		
	ctivity She Semon of Activities		
5)	Signature (Territ 1)	Date: ir	2 200
70		Date: 16 -	
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2 1	JUNYUAN PRI	WAR	I SCHO

#### JUNYUAN PRIMARY SCHOOL MATHEMATICS FILE Semester 1 2022

Name: K

s/n			
	Worksheet	Filed	Teacher's Remarks
1	Activity 1 : Comparing Numbers (1)	10	
2	Activity 2 Comparing Numbers (2)	-	
		1	
3	Addition & Subtract	ion within 10	
4	Addition : Activity Sheet 1 Subtraction : Activity Sheet 1	V	
T	Sheet 1	V	
5	Shapes	CALL PLATE	
	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 Nun	nbers	
2	Activity Sheet 1 : Order of Objects (1)		
3	Activity Sheet 2 : Order of Objects (2)		
4	Activity Sheet 3 : Sequence of Activities		

Parent's Signature (Term 1):

Date: 16-03-2022





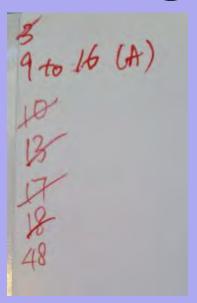


- Students demonstrate understanding of concept learnt.
- Incomplete correction is indicated either at the front or back of the practice book.
  - Parent's signature after every chapter



**Correction tracking** 

1	(2)	3	4	-5	6	1		0	W:
35	111	15	14	15	(14)	-			-
hunter i	z - Addit	ien and S	alstractio	n Within	1000				
hove no	red my ca	sids work	Fo	nent's 31g	mature				
17	1/9	59	20.	21	22	23	24	25	76
25	28	29	(30)	31	32	-33	34	(3)	76
37	38	39	40	(40)	60	45	44	45	706
(10)	/44	49	50	51	-52	53	(54)	150	-
35	50 3 - Lengt	(19)	(58)	119	60				
35 Chapter	3 - Lengt	1	(56)	19	60				
35 Diagner Lingue no	50	1	(56)	19	60	47	-50	69	70
155 Chapter I have no 61 Chapter	3 - Lengt steel my ch	the soldie more	54 and Divis	nert's esg &5 km	65 posture				
hopter have no of	3 - Lengt steel my ch 62 4 - Multi steel my ch 72	the solution and the solution to the solution	54 send Division 74	nert is eig	60 porture 65	67	-00 78	19	70
hopter those no of Chapter those no	3 - Lengt steel my ch 62 4 - Multi steel my ch	the sale of the sa	54 and Divis	nert's esg &5 km	65 posture				
Chapter Chapter Chapter Chapter Elichapter	Shi S - Length of all my children my child	the state of the s	54 seed Division 74 SA	nert s esg 65 Non rent's sig 75	60 porture 65 Posture 76				
Chapter I have no of Chapter I have no FI SI Chapter	3 - Length of Edition 19 19 19 19 19 19 19 19 19 19 19 19 19	the state of the s	54 seed Division 74 SA	nert s esg 65 Non rent's sig 75	60 porture 65 Posture 76				













# Maths Exercise Book



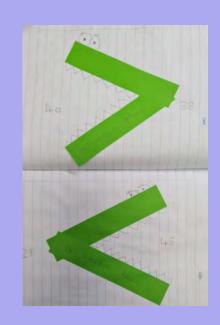
Students practise Maths concepts taught.

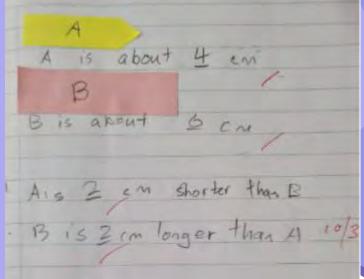


# **Maths Exercise Book**



91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3 three	4 four	5 fue	6	7 seven	8 sight	9 nine	10









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# Math Corner



### \* 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 button file before they bring it home. Students also learn to be responsible by keeping the manipulatives properly after use and returning them on time.



# Topic : Multiplication Tables of 2,5 & 10 (Individual student pack)

Activity	Objective	Materials	Instructions	Pictures
1	To remember the Multiplication and Division Tables well	Multiplication and Division cards	<ol> <li>Number of players: 2</li> <li>Player 1 shows the Multiplication Tables card to Player 2.</li> <li>Player 2 to give his/her answer for the Multiplication or Division equation shown.</li> <li>If the answer is correct, put the card faced down.</li> <li>For wrong answer, faced up</li> <li>At the end of the session, count the numbers of cards faced down (the coloured side of the card). Record the total number of the cards.</li> <li>Take note of the equations faced up and learn the Multiplication tables again.</li> <li>Repeat the process for Player 2.</li> </ol>	18 ÷ 2 5



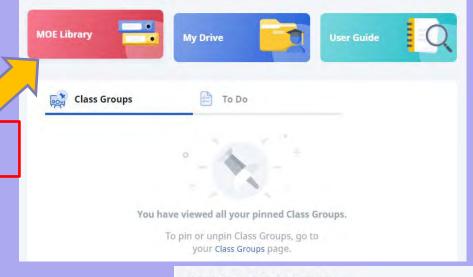


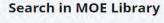
# Empower Students to be Self Directed Learners via SLS



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







**GUIDED SEARCH** 

FILTER 3



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

The P2 students have SLS lessons for Maths Around Us

- For example, P2: Multiplication, Volume.

Parents are encouraged to help their children to work

on these SLS lessons.

Things that come in twos, fives and tens

View All

What other things around you come in twos, fives or tens? Take at least 3 pictures of things that come in twos, fives or tens.

#### Hint:

You may go to the kitchen, your bedroom, living room, garden, around the neighbourhood and look for things that come in twos, fives or tens.

Look at the instructions below to upload your pictures.





### KooBits

member.koobits.com

#### Latest CP Submitted

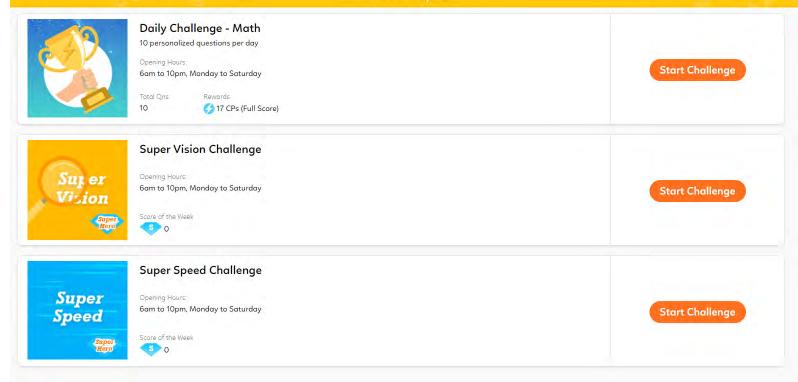
School	Latest CP	Submission Time
UST Angelicum College	3	10:07, 2023-Mar-29
Cembo Elementary School	1	10:07, 2023-Mar-29
Madrasah Wak Tanjong Al-Islamiah	2	10:07, 2023-Mar-29
West Rembo Elementary School	1	10:07, 2023-Mar-29
	UST Angelicum College Cembo Elementary School Madrasah Wak Tanjong Al-Islamiah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







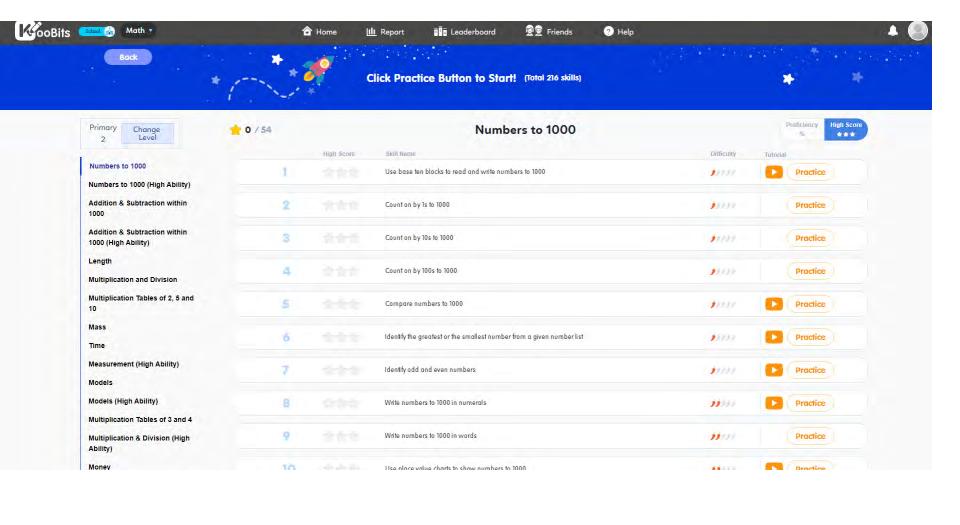
#### Daily Challe nge













## 1) Q & A

## 2) Feedback

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





# Thank you!

