

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.

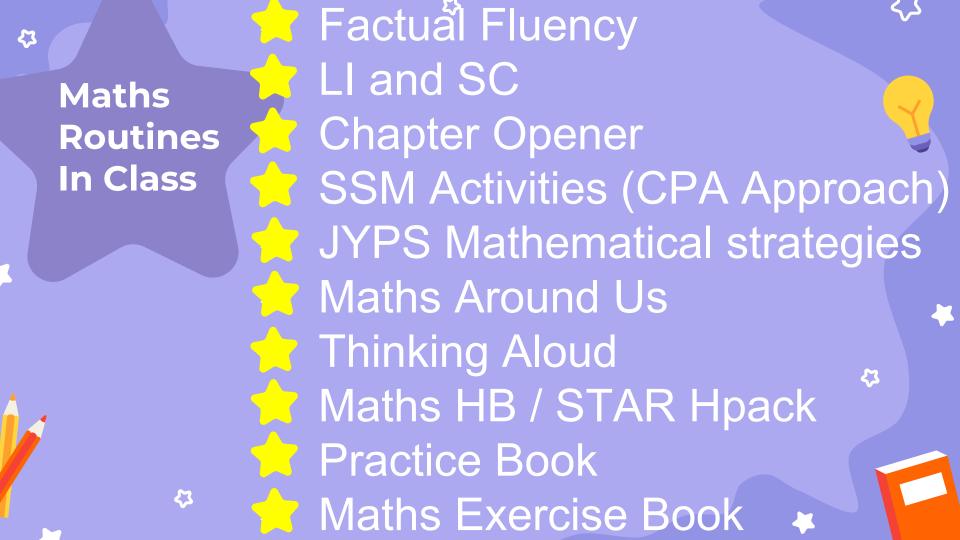














Maths facts fluency refers to the to recall basic ability mathematical facts in all four operations accurately, quickly and effortlessly.

Factual Fluency

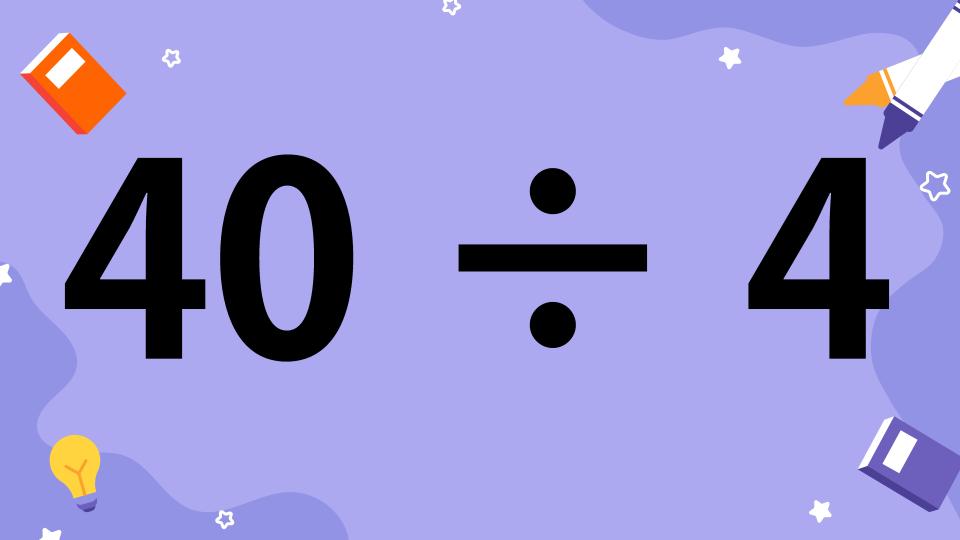
Why is it useful to master factual fluency?

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.











Learning intentions (LI) are statements that describe what students should know, understand and be able to do by the end of a task. Success criteria (SC) are linked to learning intentions and describe what success looks like.

They assist educators to articulate the purpose of a learning task and make judgements about the quality of student learning. They help students to focus on the task taking place and self-reflect.

LI and SC

Learning intentions (LI) are also known as We Are Learning To (WALT). SCs are also known as What I'm Looking For (WILF) or start with I can...

WALT

Measure length of various objects that are more than 1 m.

I can

- Tell that an object is more/less than 1 m.
- Estimate the length/height of objects that are more than 1 m.
 - Use a 1-m string to measure objects more than 1 m

 Record the lengths of objects I measure in a record sheets



Chapter Opener

This activity checks students' knowledge of the chapter they are going to learn.

This activity also arouses interest by using stories and images. Students share stories through teacher's facilitation questioning. These stories can sustain students' interest and are powerful sources of motivation for students.



- 1. How many people are there in each cabin?
- 2. How many cabins are there?
- 3. How many cabins have to be filled before the last girl has her turn?

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.



- 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
- 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



WHAT MAKES YOU SAY THAT?

- 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

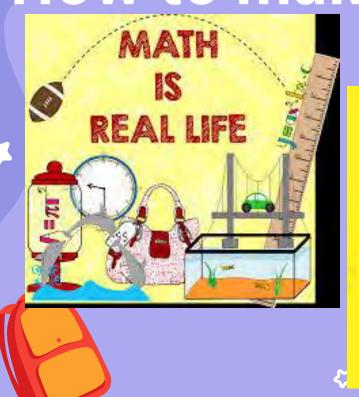


*Maths Around Us



- 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?



Math is Everywhere!





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.



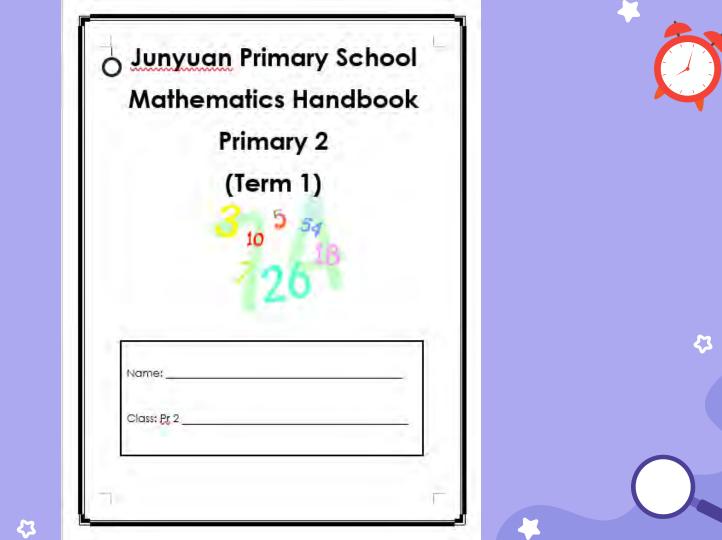


Maths HB

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





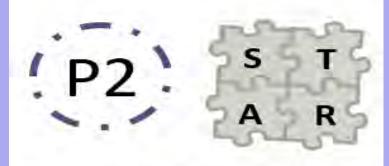
- STAR Heuristics Package (STAR Hpack) is created to teach students the methods to solve word problems.
- Develops students' logical thinking and ability to solve difficult problems.
 - To be filed into blue file at the end of the year



JUNYUAN PRIMARY SCHOOL MATHEMATICS



SEE ~ THINK ~ ACT ~ RELOOK



SEMESTER 1 - PUPIL'S COPY

NAME : ____

Starts in term 2

43



See what is given

Think of a plan

Act on the plan

43

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?



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



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
4	Model Drawing - Comparison
5	Model Drawing - Multiplication and Division
5	Model Drawing - 2-steps word problem
6	Working backward



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?

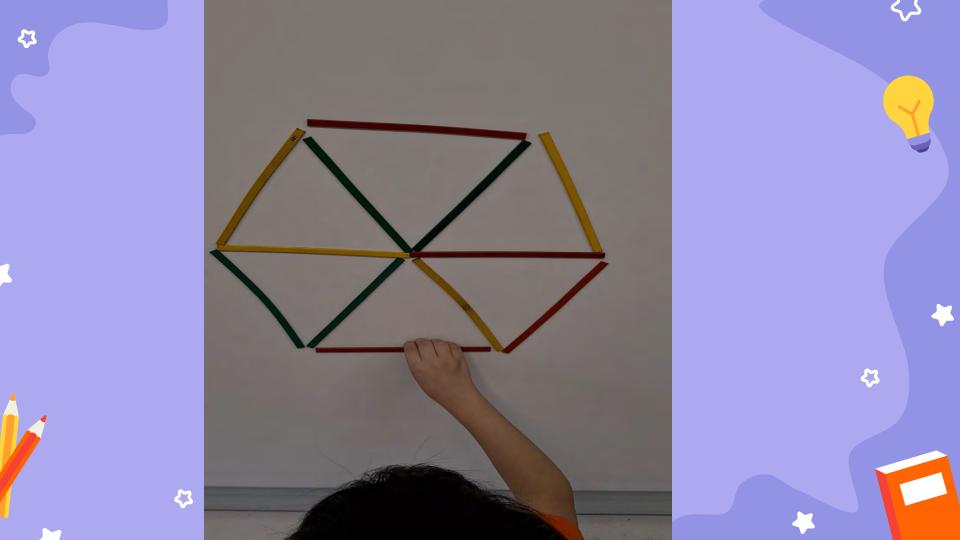
Act (What do I need to do?)

Relook (Reflect and Check)

С
0
U
R



43





Problem-Solving Approach: STAR The figure below is made, up of 12 sticks.

Move 4 sticks to get only 3 triangles.



Act it out



Solution

See (What is given?)

12 sticks Move 4 sticks Get only 3 triangles.

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?)

Use 12 sticks to act out the situation. Move the sticks according to the arrows



Relook (Reflect and Check)

3 triangles

Total: 12 sticks (48) OR

Move the sticks to form the original figure

Check by working backwards.

Checking the original requirement of the question.



Look for a Pattern

Look at the figures below. What is the missing figure?







?

Solution

See (What is given?)

Pattern
1 st , 2 nd , 3 rd
4th - ? triangles

Think (M/ha+	ie.	mv	nlan2\
1 nink	What	15	my	pian:

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

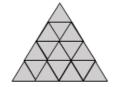
Act (What do I need to do?)

1st figure – 1 triangle

2nd figure – 1 + 3 = 4 triangles

 Ψ 3rd figure – 4 + 5 = 9 triangles

4th figure - 9 + 7 = 16 triangles



Relook (Reflect and Check)

Figure	Pattern	number of triangles	
4	-0	16	1
3	7 4	→ 9	
2	-5 4	≯ ⁴	
1	-3 4	→ ¹	/
Check t	hat pattern	column is	
			•

Check by working backwards.

(Start from Fig. \$\&\delta\$ 4 and apply the subtraction for the pattern.)





Working Backwards

There were 17 passengers on a bus attirst.

Some passengers got off the bus at the first bus stop.
8 passengers got off at the second bus stop.
There are 6 passengers left on the bus.
How many passengers got off at the first bus stop?

Solution

See (What is given?)	Think (What is my plan?)		
17 at first Some got off, 1* bus stop 8 got off, 2* bus stop 6 left	Can I act it out? Can I look for a pattem? Can I draw a part-whole model? Can I draw a comparison model? J Can I work backwards?		
? got off, 1* bus stop	T CONTROL CONT		

Relook (Reflect and Check)

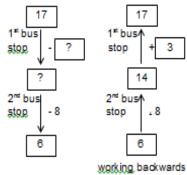
1st bus

2nd bus

stop

stop

Act (What do I need to do?)



working, backwards

3 passengers got offat the first bus stop.

Check by working forward.
Start from the⇔ answer and apply it to the scenario.





Problem-Solving Approach: STAR

Model Drawing

Comparison Model



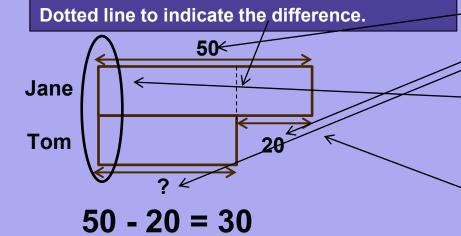
Problem-Solving Approach: STAR Comparison Model

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.

have a common starting line.

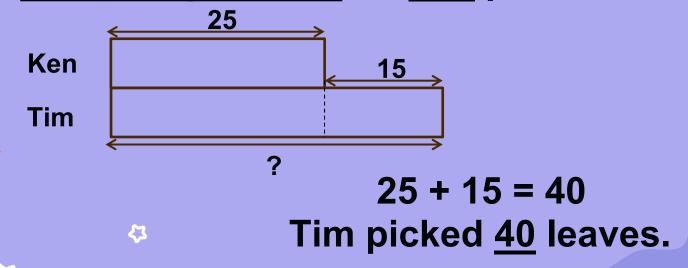
Models to

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

С	✓	
0	\	
U	\	
R	✓	
Т	√	

Problem-Solving Approach: STAR Comparison Model

Let's try this Ken picked 25 leaves.
Ken picked 15 fewer leaves than Tim.
How many leaves did Tim pick?



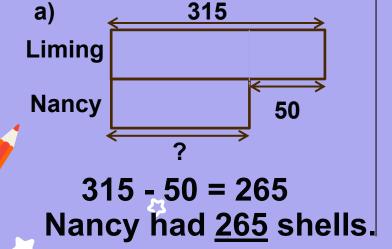
Model Drawing

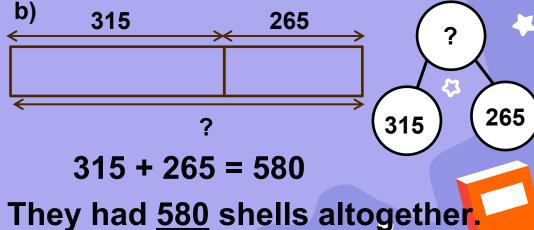
Break down models for introduction at P2

Liming had 315 shells.

Nancy had 50 shells fewer than Liming.

How many shells did they have altogether?





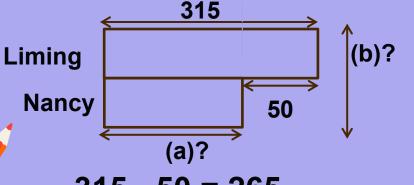
Model Drawing

Break down models for introduction at P2

Liming had 315 shells.

Nancy had 50 shells fewer than Liming.

How many shells did they have altogether?



315 - 50 = 265 Nancy had <u>265</u> shells.

315 + 265 = 580

They had 580 shells altogether.





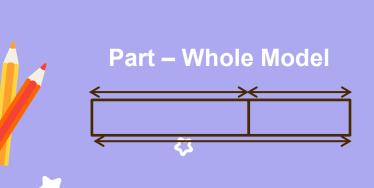
Model Drawing

Break down models for introduction at P2 Let's try this...

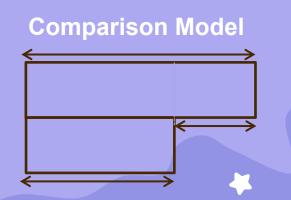
Zack sold 400 eggs.

He sold 10 more eggs than Sally.

How many eggs did they sell altogether?







43

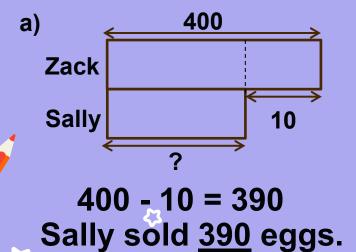
Model Drawing

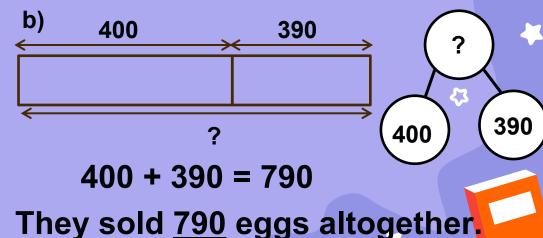
Break down models for introduction at P2

Zack sold 400 eggs.

He sold 10 more eggs than Sally.

How many eggs did they sell altogether?





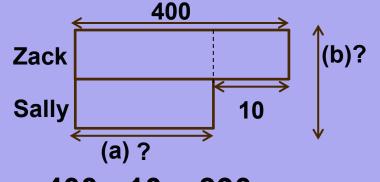
Model Drawing

Break down models for introduction at P2

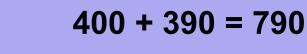
Zack sold 400 eggs.

He sold 10 more eggs than Sally.

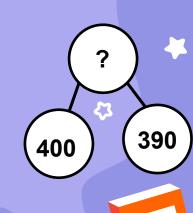
How many eggs did they sell altogether?



400 - 10 = 390 Sally sold <u>390</u> eggs.



They sold 790 eggs altogether.





Multiplication Word Problems



Multiplication Model Model



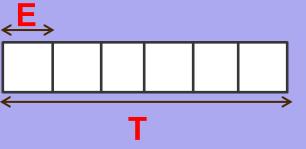


Multiplication Word Problems

Model Drawing GET

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

- **G** Number of **G**roups 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.



G = number of Groups (boxes)









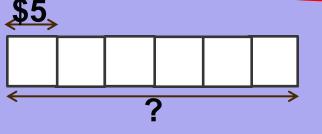
Multiplication Word Problems

Model Drawing

Sherin bought 6 bottles of milk.

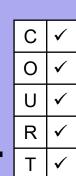
Each bottle cost \$5

How much did she pay altogether?



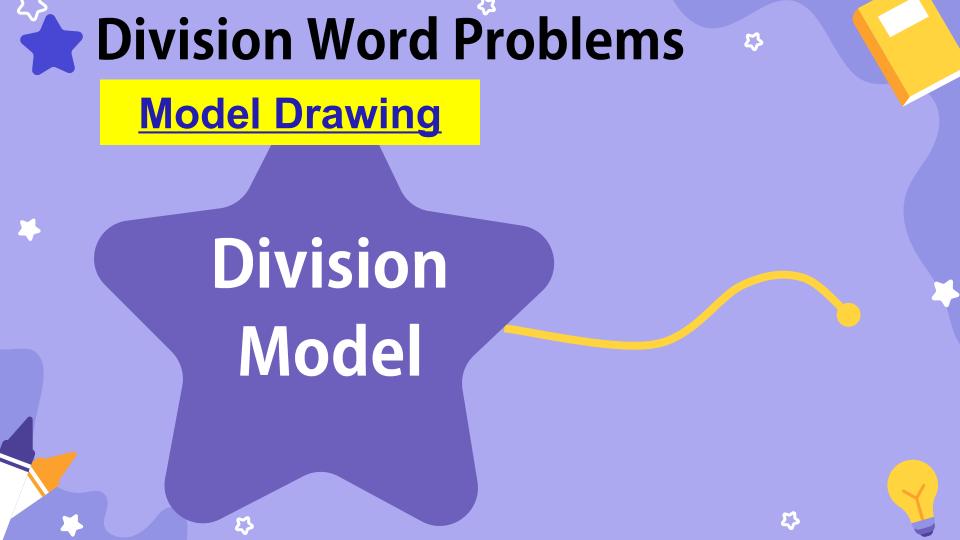
 $6 \times $5 = 30

She paid \$30 altogether.





³6→\$5?





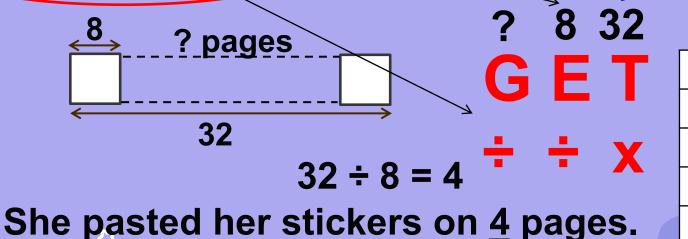
Division Word Problems

Model Drawing

Jane had 32 stickers.

She pasted 8 stickers on each page of her album.

How many pages did she paste her stickers on?



U



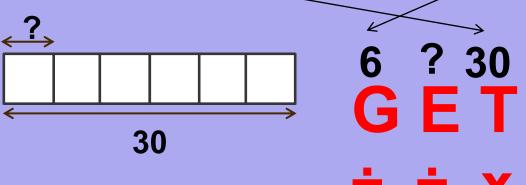
Division Word Problems

Model Drawing

Let's try this.

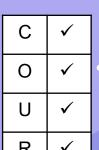
There are 30 flowers to be planted into 6 pots.

How many flowers are there in each pot?



 $30 \div 6 = 5$

There are 5 flowers in each pot.



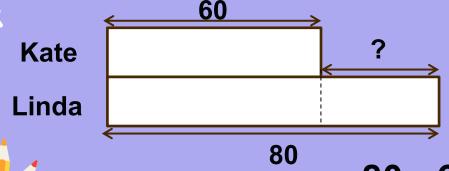


Model Drawing Comparison Model

Example 1

Kate baked 60 cakes. Linda baked 80 cakes.

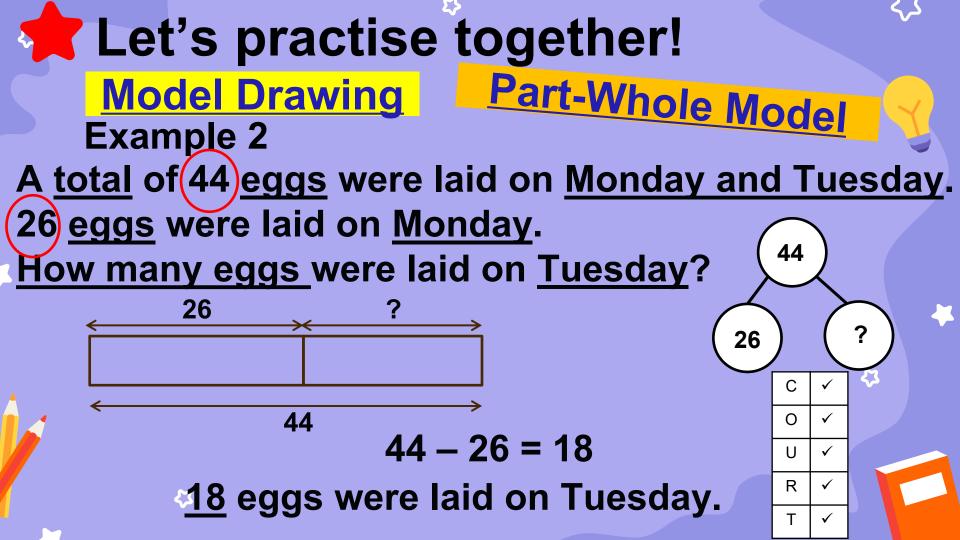
How many more cakes did Linda bake than Kate?

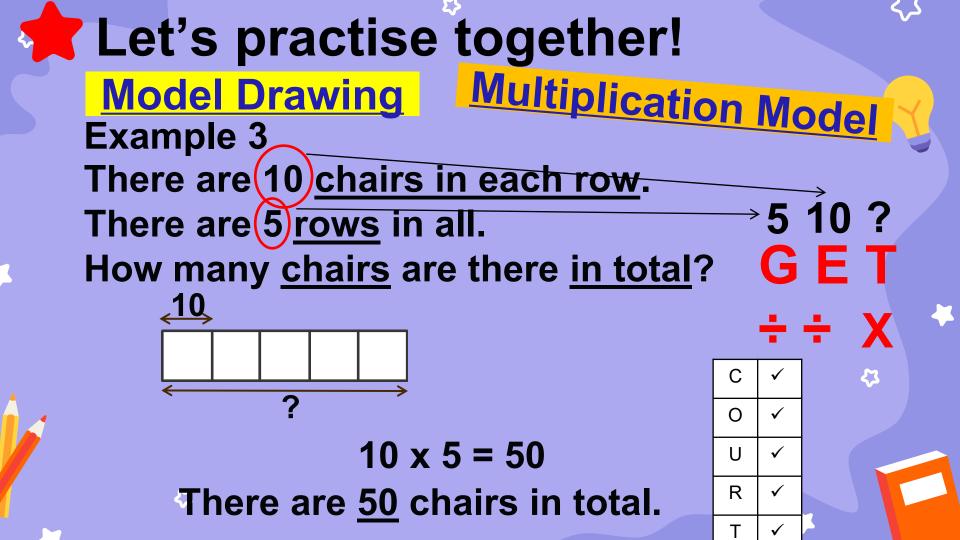


80 - 60 = 20

Linda baked 20 more cakes than Kate.









Model Drawing

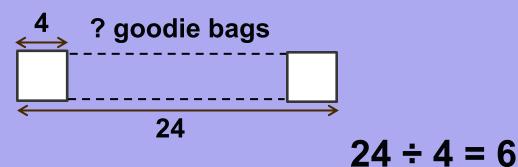
Division Model

Example 4

Yanlin has 24 chocolate bars.

She puts 4 chocolate bars into the goodie bags equally.

How many goodie bags will she need?



GET

U

She will need 6 goodie bags.



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	Teacher's Remarks			
	Numbers to 10		, souther a remarks			
	Activity 1 - Comparing Numbers (1)					
7	Acts by 2 Comparing Numbers (2)	V				
		V				
	Addition & Subtraction	within 10				
	Addition : Activity Sheet 1	7				
	Subtraction : Activity Sheet 1	~				
		~				
Classic	Shapes					
	Activity Sheet 1	1				
	Activity Sheet 2	V				
	Activity Sheet 3					
	Ac vity Sheet 5					
School: School: Subject:	ctivity She Service of Objects (2) ctivity She Service of Activities JUNYUAN PRI	Date: 10-c				

JUNYUAN PRIMARY SCHOOL MATHEMATICS FILE Semester 1 2022

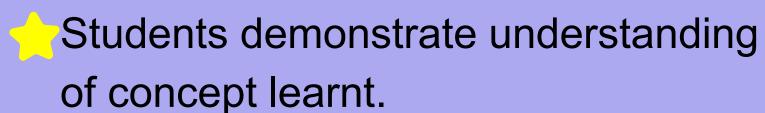
Name: Ks/n Worksheet Teacher's Remarks Numbers to 10 1 Activity 1 Comparing Numbers (1) 2 Activity 2 - Comparing Numbers (2) Addition & Subtraction within 10 3 Addition : Activity Sheet 1 4 Subtraction : Activity Sheet 1 V Shapes 5 Activity Sheet 1 V 6 Activity Sheet 2 7 Activity Sheet 3 8 Activity Sheet 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



* Practice Book *

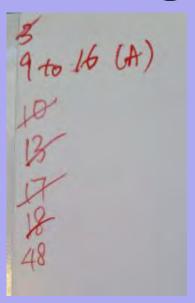


- Incomplete correction is indicated either at the front or back of the practice book.
 - Parent's signature after every chapter



Correction tracking

1	(2)	ild's work	4	- 5	6	1		0	K
35	11	15	14	15	(16)	-	-	-	-
houtes ?		ien and 5	debes elle	a talleble	1964				-
		sids work		ent's sky					
17	1/9	50	20	21	22-	-23	24	25	76
28	28	29	(30)	31	32	-33	34	(3)	755
37	38	39	46	(41)	(10)	45	44	145	706
(42)	/40	49	50	51	-52	53	(54)	134	42
35	Se Lengt	th.	(68)	fig.	60				
35 Chapter	3 - Lengt	1	(56)	19	60				
35 Chapter Chave no	3 - Lengt	(19)	(56)	-	60	47	-50	60	70
Shapter Chapter 61 Chapter I have no	5% 3 - Lengt feet my ct 62 4 - Multi feet my ct	th. slots more as a plication tilds were	54 and Divis	nert is eig 65 km	66 esture				
Shapter Chapter I have no OL Chapter I have no	5% 3 - Lengt fed my cl 62 4 - Multi sted my cl 72	short more short more short more phication trids work	54 send Divis	nert s eig 65	66	67	78	69.	70
Shapter Chapter 61 Chapter I have no	5% 3 - Lengt feet my ct 62 4 - Multi feet my ct	th. slots more as a plication tilds were	54 and Divis	nert is eig 65 km	66 esture				
Chapter I have no Ot Chapter I have no II Eli Chapter	5 Length feet my cl 62 4 - Malhi red my cl 72 82 5 - Malhi	hild's sortion tild's work 73 83	54 and Division 74 84 Tables of	nert is eight of the first of t	60 poture 65 posture 76				
Chapter I have no Ot Chapter I have no II Eli Chapter	5 Length feet my cl 62 4 - Malhi red my cl 72 82 5 - Malhi	the state of the s	54 and Division 74 84 Tables of	nert is eight of the first of t	60 poture 65 posture 76				













Maths Exercise Book



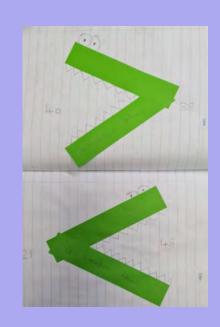
Students practise Maths concepts taught.

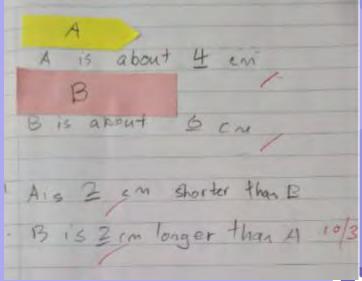


Maths Exercise Book



1	2	15 Hortem	feether	5	6 fire	7		timites.	10
11	12	13	14	25	16	17	18	19	20
21	32	33	34	35	36	37	38	39	30
41 terry 31	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100











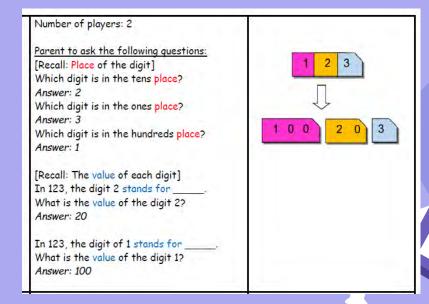
* Homelink Pack *

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: Numbers to 1000]
Individual student pack
of:

(a)Base ten sets
(b)Place Value sets
Suggestion(s) on homebased activities are
included (printed
instruction/Class Dojo)

Instructions Number of players: 2 1. Parent to call out any 3-digit number Example: 123 2. Student to use base-ten set and Place Value card to represent the called number (123)



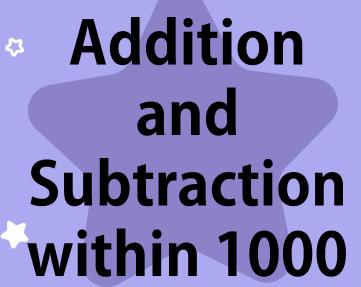




Let's take a short break!





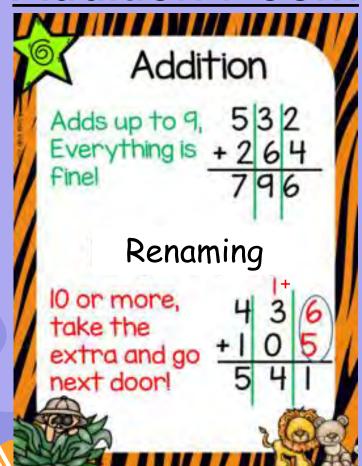


Students to be able to add and subtract:

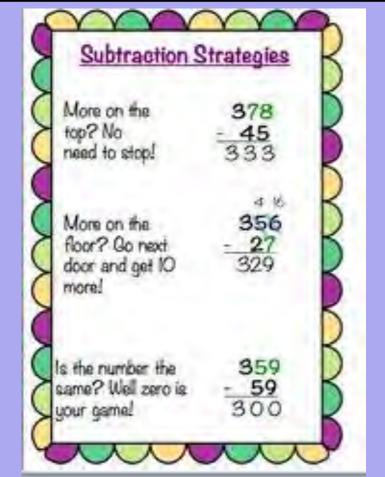
- up to 3-digit numbers
- using algorithm

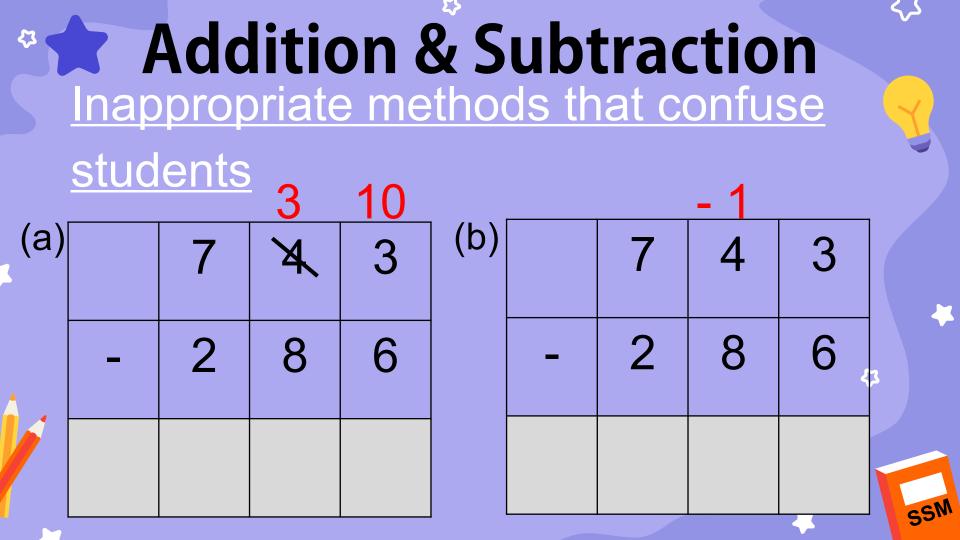


Addition Poem



Subtraction Poem





Maths Around Us







Source:

https://www.sbstransit.com.sg/Service/BusService?ServiceType=Basic&ServiceNo=293

https://www.fairprice.com.sg/

Thinking Aloud

What do you see?

What questions do you wonder?



I wonder how many rulers I can buy with \$50?









Students to be able to:

estimate and measure length in metres (m)



Hands-on Activity Sheet

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	THE WAY	
My reach	- 1	
Length of my desk		
Breadth of my desk		
Height of my desk		
Height of my chair		

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	aboutm
Length of the noticeboard	about m	aboutm
Length of the teacher's table	about m	aboutm
Length of the window	about m	about m
Width of the door	aboutm	aboutm
Distance from the teacher's table to the door	about m	aboutm









Maths Around Us





What is the length of the swimming pool?

How far can you swim?

from Junyuan Primary School, 2 Tampines Stree... ¥ Groceries **Y**¶ Restaurants **♥** Coffee Q More to Tampines West SPC Tampines Sri Lakshmi **Tampines West** Narayana Resta Community Club 7 min (600 m) & Amazing Deals via Tampines Street 91 and Tampines Ave 4 园 Mostly flat Junyuan Primary School O Kraft Kitchen Zi Zai Vegetarian Use caution-walking directions may not always (Tampines) Vegetarian · \$\$ reflect real-world conditions **★ 7 min** Junyuan Primary School 2 Tampines Street 91, Singapore 528906 Music Dreamz School Head southeast on Tampines Street 91 350 m Tampines West Block 933 **HDB** Tampines Turn left onto Tampines Ave 4 Tam Tampines GreenGem 160 m Tampines Ave 1 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

Multiplication Tables of 2, 5 and 10

Students to be able to build multiplication table of:

→2, 3, 4, 5 and 10



Interactive Foldables





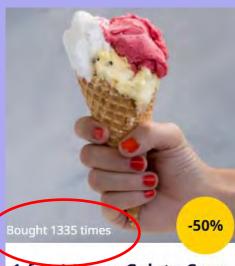


Maths Around Us





Shake Shake In A Tub (IMMI)



1-for-1 Large Gelato Cone by Gelatissimo (Shaw House)











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



Fractions





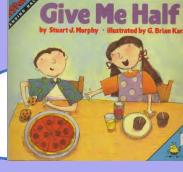
- The concept of fractions is introduced at Primary
 2.
- Use everyday examples to make sense of the language and notation of fractions.
- Students should be able to use and understand the meaning of numerator and denominator when writing fractions.

Introduction to Fractions one-half

The whole is cut continuous into 2 equal parts.



1 part



2

Denominator • • • (total number of equal parts)

2 equal parts

Maths Around Us

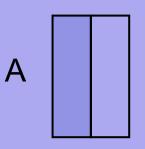




If you are cutting a cake equally for everyone in the family, what is the fraction of each piece of cake?

If your sister eats $\frac{1}{4}$ of the cake, what fraction of the





В

A is a greater fraction than B. Do you agree? Why?





Volume Students to be able to:

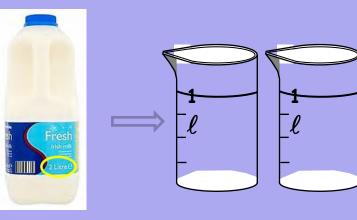
- → Measure volume of the second contract water in litres
- ★ Compare and order volumes

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.



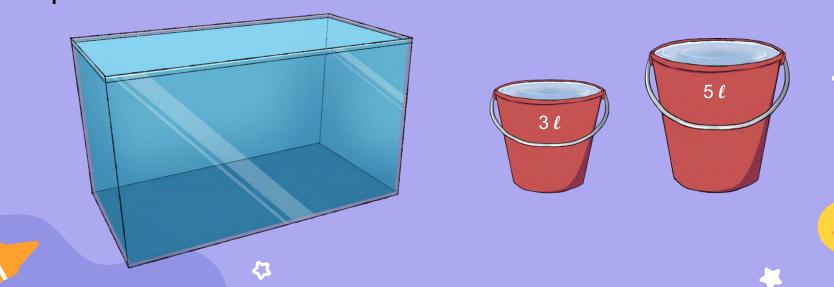
Maths Around Us



Bottled drinks

- How much water can each bottle hold?
- What is the total volume of water in the bottles?

John wants to have 4 litres of water in his fish tank. He only has a 3 ℓ pail and a 5 ℓ pail. How do I measure about 4 ℓ of water using these 2 pails?



Mass

- Students to be able to:
- Measure in kilograms / grams

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.























Maths Around Us

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









Mary said that the beach ball is bigger in size than the basketball so the beach is heavier than the basketball. Do you agree with her? Why?



Students to be able to:

- Tell time to the minutes
- Measure time in hours and minutes
- Converting time in hours and minutes to hours and vice versa

Tell time to the minutes using mini clock









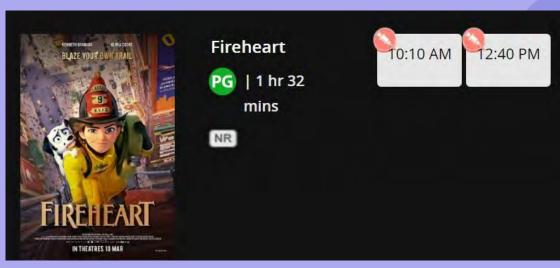


\$3







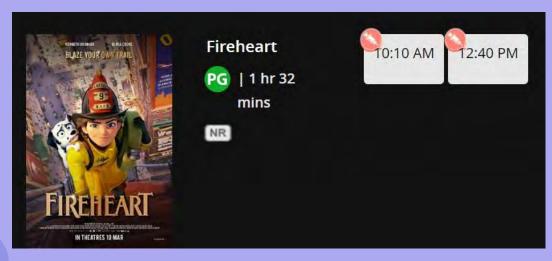


source: sgtrains.com

source: https://shaw.sg/showtimes







source: https://shaw.sg/showtimes

h/min

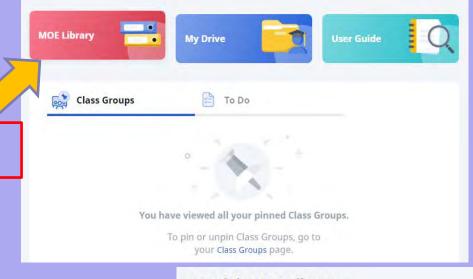
hr/mins

The show
'Fireheart' is
1 hour and 32
min long.
How long is
the show in
minutes?



43

Student Learning Space (SLS)



Search in MOE Library



GUIDED SEARCH

FILTER 3

KooBits

member.koobits.com

Latest CP Submitted

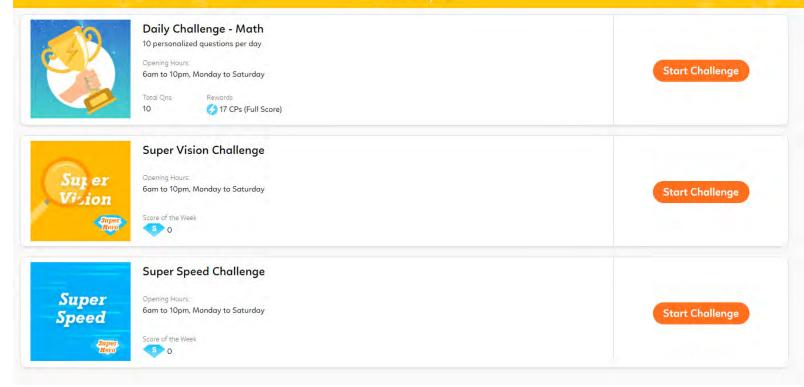
School	Latest CP	Submission Time	
UST Angelicum College	3	10:07, 2023-Mar-29	
Cembo Elementary School	1	10:07, 2023-Mar-29	
Madrasah Wak Tanjong Al-Islamiah	2	10:07, 2023-Mar-29	
West Rembo Elementary School	1	10:07, 2023-Mar-29	
	UST Angelicum College Cembo Elementary School Madrasah Wak Tanjong Al-Islamiah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







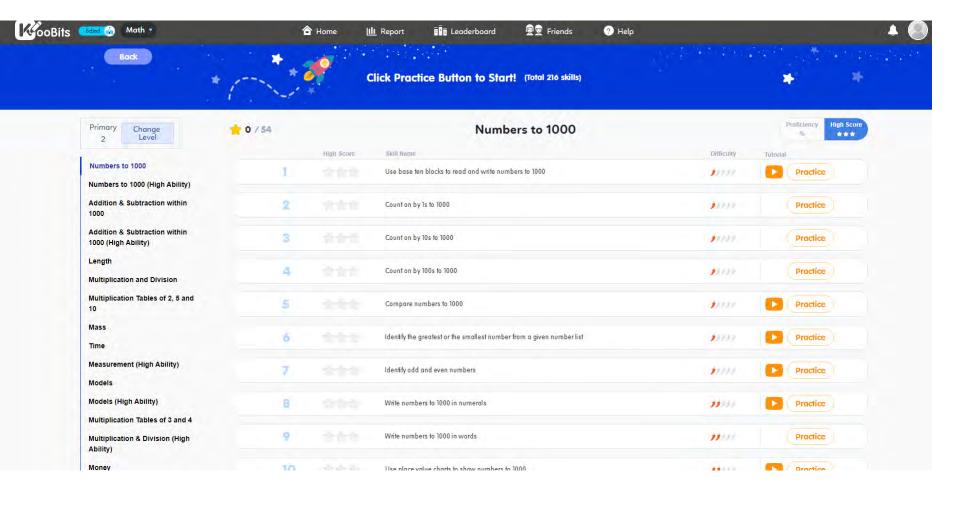
Daily Challe nge













Latest CP Submitted

Scho	School		Submission Time	
	UST Angelicum College	3	10:07, 2023-Mar-29	
K	Cembo Elementary School	1	10:07, 2023-Mar-29	
<u> </u>	Madrasah Wak Tanjong Al-Islamiah	2	10:07, 2023-Mar-29	-
	West Rembo Elementary School	1	10:07, 2023-Mar-29	
	E'	School UST Angelicum College Cembo Elementary School Madrasah Wak Tanjong Al-Islamiah West Rembo Elementary School	UST Angelicum College 3 Cembo Elementary School 1 Madrasah Wak Tanjong Al-Islamiah 2	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







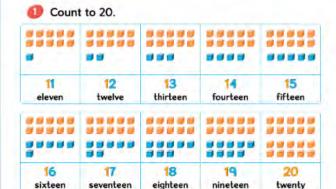


- tensure written homework is done
- Ensure SLS assignments are completed
- Sign practice book and blue file when brought home and try to go through their corrections

Ways Parents Can Help their Children

43

What Have I Learnt?



Count by making a group of 10 first.



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.









