MATHS ALIVE!
Workshop for Parents
Fri, 19 April 2024
(P2)

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.

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

Elisa Chia

UPDATED MAR 15, 2024, 05:33 PM ▾

f   ✈   ⋯

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.

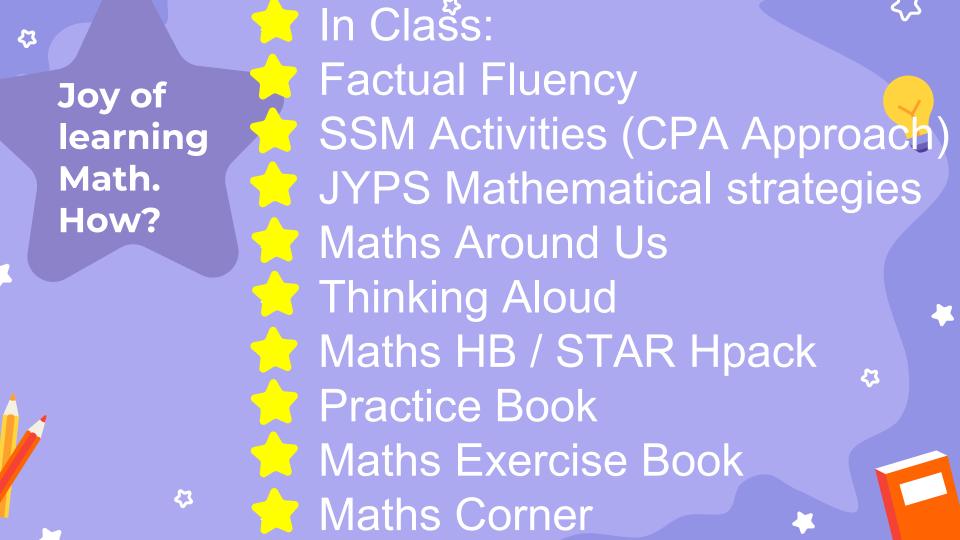Provide a distraction - free learning environment :
Do not use your phone when you at at their study space as that will be distracting to them. Do your own work or reading.

Take a supportive role, offering encouragement and being there is 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.

Joy of learning Math. How?

In Class:

Factual Fluency

SSM Activities (CPA Approach)

JYPS Mathematical strategies

Maths Around Us

Thinking Aloud

Maths HB / STAR Hpack

Practice Book

Maths Exercise Book

Maths Corner

⭐ Factual Fluency

Maths **facts fluency** refers to the ability to recall basic 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.

5 x 2

$$20 \div 5$$

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

1. 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 into **2 equal parts.**

Give Me Half
by Stuart J. Murphy · illustrated by G. Brian Karas

1 ➡ **Numerator**
(part of the whole)

1 part

2 ➡ **Denominator**
(total number of equal parts)

2 equal parts

Volume

Students to be able to:

⭐ Measure volume of water in litres
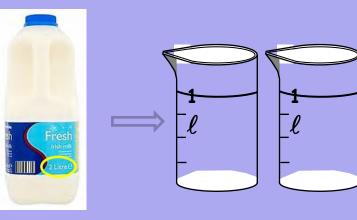
⭐ Compare and order volumes

Using everyday examples to teach volume.

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

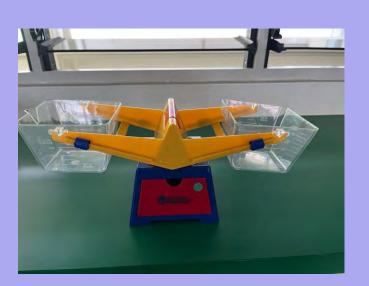Use of measuring cylinders to measure volume of liquid in litres.

SSM

Mass

Students to be able to:

⭐ Measure in kilograms / grams

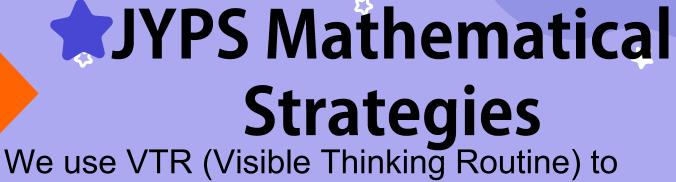⭐ Compare and order masses

Using weighing scales for the topic of Mass

Math Corner

Play,
Learn
and
Grow...
Together!

twenty

thirty

forty

fifty sixty seventy

eighty ninety one hundred

smaller	smallest
greater	greatest
value	stands for

24 parts

JYPS Mathematical Strategies

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?

Visible Thinking Routine

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

Visible Thinking Routine

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

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.

300 ▢

4 ▢

2 ▢

180 ▢

25 ▢

Thinking Aloud

⭐ Provides opportunity for students to reason, think creatively and critically.

⭐ 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

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
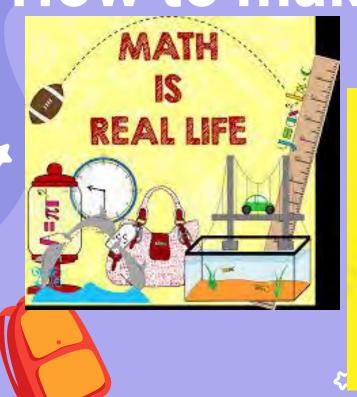48 m

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?

Maths Around Us

source : sgtrains.com

Kung Fu Panda 4 +^

PG *Some Frightening Scenes*

94 minutes

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

How many hours and minutes are there in 94 minutes?

Maths Around Us

Money

$1.95
EVERYTHING MUST GO!

FIRE SALE!
$1.50
EVERYTHING MUST GO!

FIRE SALE!
$1.95
EVERYTHING MUST GO!

$1.00 $1.00

$2.90
Freshtrop Green Seedless Grapes
500g

$1.55
Pasar Sweet Corn
2 per pack

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

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

Short Answer

Let's take a short break!

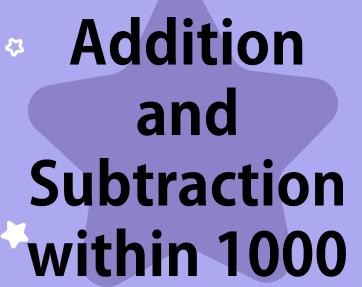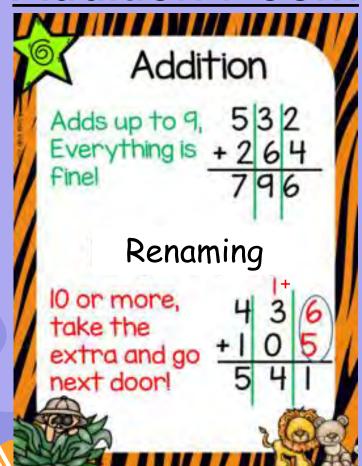Knowing the concept of each Math topic well, will help your child to enjoy their Math learning.
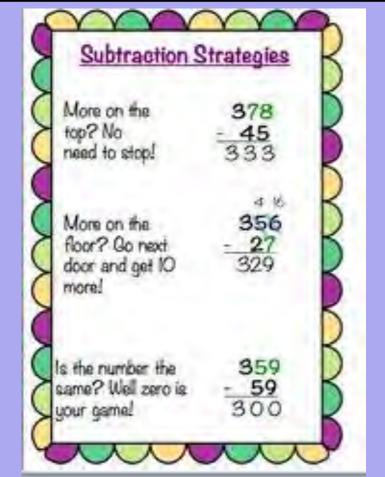
Addition and Subtraction within 1000

Students to be able to add and subtract:

⭐up to 3-digit numbers

⭐using algorithm

Addition Poem

Addition

Adds up to 9,
Everything is
fine!

$$\begin{array}{r} 5\ 3\ 2 \\ +\ 2\ 6\ 4 \\ \hline 7\ 9\ 6 \end{array}$$

Renaming

10 or more,
take the
extra and go
next door!

$$\begin{array}{r} ^{1+}\ \\ 4\ 3\ 6 \\ +\ 1\ 0\ 5 \\ \hline 5\ 4\ 1 \end{array}$$

Subtraction Poem

Subtraction Strategies

More on the top? No need to stop!

$$\begin{array}{r} 378 \\ -\ 45 \\ \hline 333 \end{array}$$

More on the floor? Go next door and get 10 more!

$$\begin{array}{r} ^{4\ 16} \\ 356 \\ -\ 27 \\ \hline 329 \end{array}$$

Is the number the same? Well zero is your game!

$$\begin{array}{r} 359 \\ -\ 59 \\ \hline 300 \end{array}$$

Addition & Subtraction

Inappropriate methods that confuse students

(a)

	3	10	
	7	~~4~~	3
-	2	8	6

(b)

		- 1	
	7	4	3
-	2	8	6

SSM

Multiplication Tables of 2, 5 and 10

Students to be able to build multiplication table of:

⭐2, 3, 4, 5 and 10

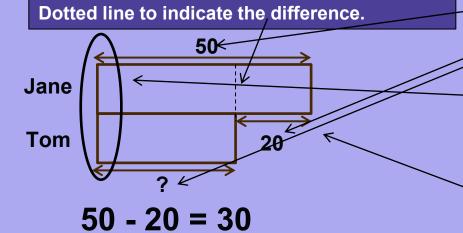# Problem-Solving Approach: STAR

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 ?

Dotted line to indicate the difference.

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

50

Jane

Tom

20

?

Models to have a common starting line.

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

50 - 20 = 30

Tom has 30 stickers.

C	✓
O	✓
U	✓
R	✓
T	✓

2-Step Word Problems

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 <u>580</u> shells altogether.

2-Step Word Problems
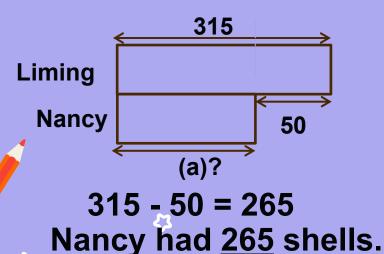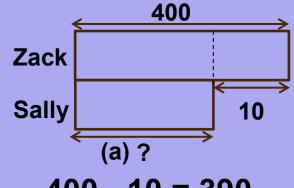
Model Drawing

Break down models for introduction at P2
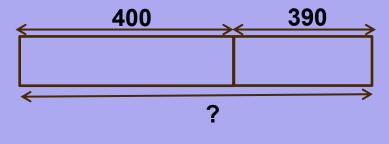
Zack sold **400** eggs.
He sold **10** **more eggs than Sally**.
How many eggs did they sell **altogether** ?

400

Zack

Sally

10

(a) ?

400 - 10 = 390
Sally sold 390 eggs.

400   390

?

400 + 390 = 790

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.

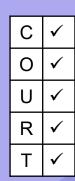**T** – **Total value** of all boxes.

Multiplication Word Problems

Sherin bought **6** **bottles** of milk.

Each bottle cost **$5.**

How much did she **pay altogether** ?

6 $5 ?

G E T

÷ ÷ x

6 x $5 = $30

She paid $30 altogether.

C	✓
O	✓
U	✓
R	✓
T	✓

Division Word Problems

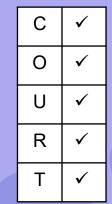Division

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?

? 8 32

G E T

÷ ÷ X

32 ÷ 8 = 4

She pasted her stickers on 4 pages.

C	✓
O	✓
U	✓
R	✓
T	✓

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?
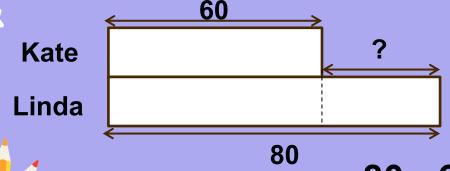
6   ?   30

G E T

÷   ÷   x

30 ÷ 6 = 5

There are 5 flowers in each pot.

C	✓
O	✓
U	✓
R	✓
T	✓

Let's practise together!

Example 1

Kate baked 60 cakes. Linda baked 80 cakes. How many more cakes did Linda bake than Kate?

Kate — 60

Linda — ?

80

$80 - 60 = 20$

Linda baked 20 more cakes than Kate.

C	✓
O	✓
U	✓
R	✓
T	✓

⭐ 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

G E T

÷ ÷ X

24 ÷ 4 = 6

She will need 6 goodie bags.

C	✓
O	✓
U	✓
R	✓
T	✓
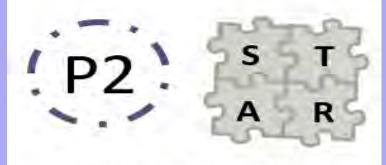
Problem-Solving Approach: STAR

JUNYUAN PRIMARY SCHOOL
MATHEMATICS

STAR

SEE ~ THINK ~ ACT ~ RELOOK

P2

S T
A R

SEMESTER 1 - PUPIL'S COPY

NAME : _____

Starts in term 2

Problem-Solving Approach: STAR

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?

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?

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?

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

O – **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?)

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?
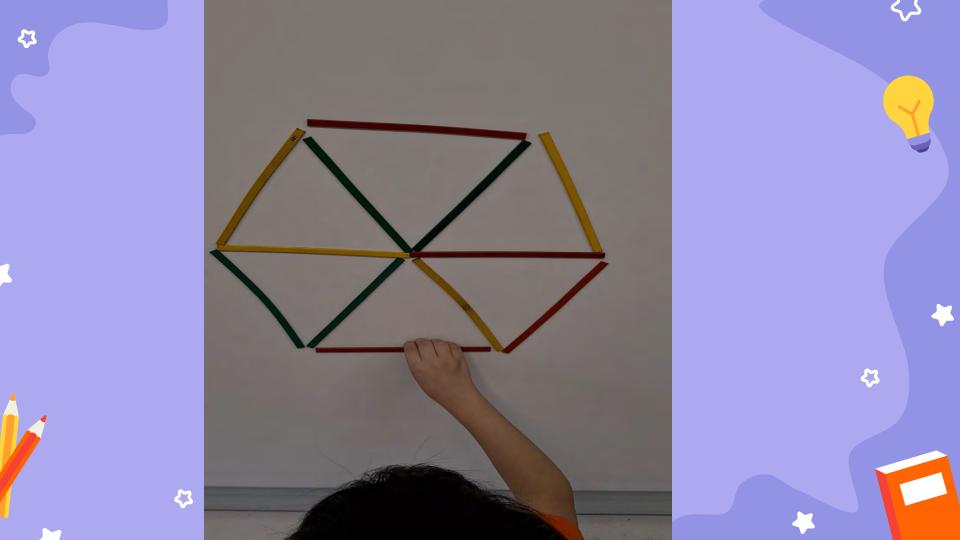
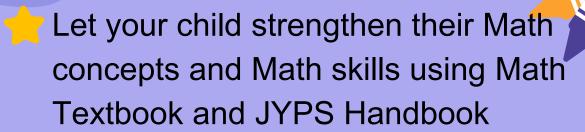Act (What do I need to do?)

Relook (Reflect and Check)

C
O
U
R
T

Partnership in action

⭐ Let your child strengthen their Math concepts and Math skills using Math Textbook and JYPS Handbook

⭐ Do HOMELINK activities with your child

⭐ 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

Junyuan Primary School

Mathematics Handbook

Primary 2

(Term 1)

Name: _____

Class: Pr 2 _____
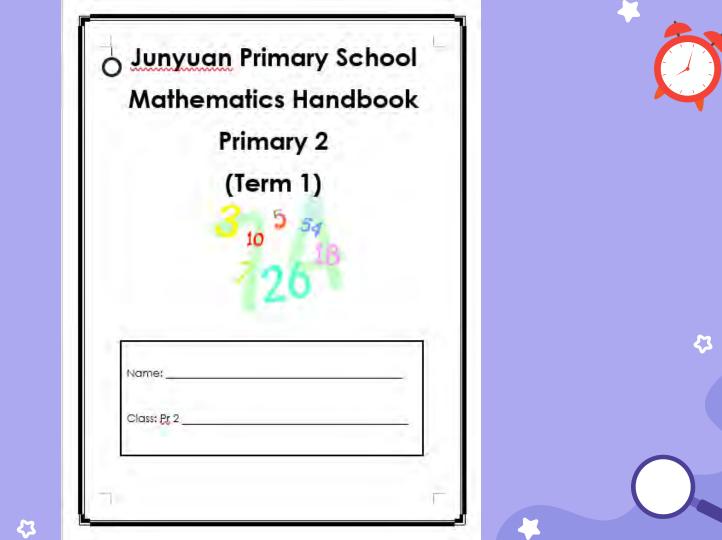
Maths HB

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 SCHOOL
MATHEMATICS FILE
Semester 1 2022

Name: _____

s/n	Worksheet	Filed	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	✓	
	Shapes		
5	Activity Sheet 1		
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		
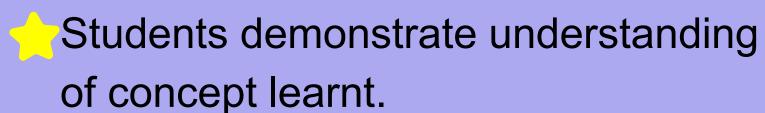
Parent's Signature (Term 1) : _____   Date: 16 - 03 - 2022

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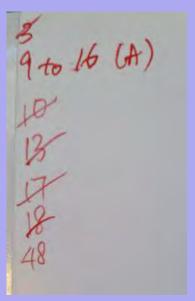
- Students demonstrate understanding of concept learnt.
- Incomplete correction is indicated either at the front or back of the practice book.
- Parent's signature after every chapter

Correction tracking

Maths Exercise Book

Students practise Maths concepts taught.
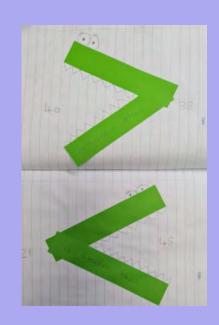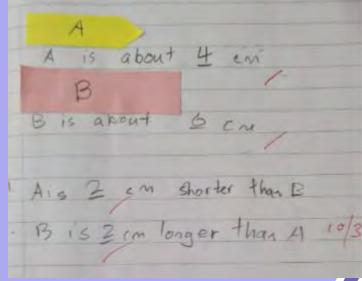
Maths Exercise Book

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	Number of players: 2 1. Player 1 shows the Multiplication Tables card to Player 2. 2. Player 2 to give his/her answer for the Multiplication or Division equation shown. 3. If the answer is correct, put the card faced down. 4. For wrong answer, faced up 5. 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. 6. Take note of the equations faced up and learn the Multiplication tables again. 7. Repeat the process for Player 2.	
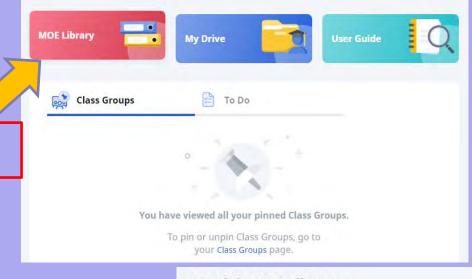
Empower Students to be Self Directed Learners via SLS

Student Learning Space (SLS)

1

Search in MOE Library

Q Search for resources   GUIDED SEARCH

Subject   [7] Select Subject   ∨   Level   Select Level   ∨   ⧩ FILTER [3] ✕

MOE Library   Lessons & Courses   Subject [7]   Primary 2   ⓘ   APPLY ∨

2

KooBits

member.koobits.com

Latest CP Submitted

Name	School	Latest CP	Submission Time	
Basco, *****	UST Angelicum College	3	10:07, 2023-Mar-29	🇵🇭
Papa, L*****	Cembo Elementary School	1	10:07, 2023-Mar-29	🇵🇭
Ahmed U*****	Madrasah Wak Tanjong Al-Islamiah	2	10:07, 2023-Mar-29	🇸🇬
Berbano*****	West Rembo Elementary School	1	10:07, 2023-Mar-29	🇵🇭

Welcome to
KooBits

Parent App | Teacher App

KooBits | Love Learning

Log in details can be found in student's diary pg 31

Show

Need Help?

Login

If you don't have account, you can [Sign up]

KooBits Learning Pte Ltd

? Support

Joewen Teo
Junyuan Primary School

0 XP
Lvl 1

Brain Games

Events

Story

Daily Challenge
10 personalized questions per day

Start

Mission

Multiplayer

Assignment

0
Total CPs

1000
KoKo Credits

Daily Bonus

Switch to Teacher

Dr. Miko is asking you...

X

Daily Challenge - Math

10 personalized questions per day

Opening Hours:
6am to 10pm, Monday to Saturday

Total Qns
10

Rewards
17 CPs (Full Score)

Start Challenge

Super Vision Challenge

Opening Hours:
6am to 10pm, Monday to Saturday

Score of the Week
5 0

Start Challenge

Super Speed Challenge

Opening Hours:
6am to 10pm, Monday to Saturday

Score of the Week
5 0

Start Challenge

Joewen Teo
Junyuan Primary School

0 XP

Lvl 1

Brain Games

Events

Story

Daily Challenge
10 personalized questions per day

Start

Mission

Multiplayer

Assignment

0
Total CPs

1000
KoKo Credits

Daily Bonus

Switch to Teacher

Dr. Miko is asking you...

Joewen Teo
Junyuan Primary School

0 XP
Lvl 1

Brain Games

Events

Story

Daily Challenge
10 personalized questions per day
Start

Mission

Multiplayer

Assignment

0
Total CPs

1000
KoKo Credits

Daily Bonus

Dr. Miko is asking you...

Switch to Teacher

Back

Click Practice Button to Start! (Total 216 skills)

⭐ 0 / 54

Numbers to 1000

Proficiency %   High Score ★★★

	High Score	Skill Name	Difficulty	Tutorial
1	★★★	Use base ten blocks to read and write numbers to 1000	●●●●●	▶ Practice
2	★★★	Count on by 1s to 1000	●●●●●	Practice
3	★★★	Count on by 10s to 1000	●●●●●	Practice
4	★★★	Count on by 100s to 1000	●●●●●	Practice
5	★★★	Compare numbers to 1000	●●●●●	▶ Practice
6	★★★	Identify the greatest or the smallest number from a given number list	●●●●●	▶ Practice
7	★★★	Identify odd and even numbers	●●●●●	▶ Practice
8	★★★	Write numbers to 1000 in numerals	●●●●●	▶ Practice
9	★★★	Write numbers to 1000 in words	●●●●●	Practice
10	★★★	Use place value charts to show numbers to 1000	●●●●●	▶ Practice

Left sidebar:

- **Numbers to 1000**
- Numbers to 1000 (High Ability)
- Addition & Subtraction within 1000
- Addition & Subtraction within 1000 (High Ability)
- Length
- Multiplication and Division
- Multiplication Tables of 2, 5 and 10
- Mass
- Time
- Measurement (High Ability)
- Models
- Models (High Ability)
- Multiplication Tables of 3 and 4
- Multiplication & Division (High Ability)
- Money

Latest CP Submitted

Name	School	Latest CP	Submission Time	
Basco, *****	UST Angelicum College	3	10:07, 2023-Mar-29	
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Berbano*****	West Rembo Elementary School	1	10:07, 2023-Mar-29	

Welcome to
KooBits

KooBits | Love Learning

Enter your Login ID

Enter your password

Show

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KooBits Learning Pte Ltd

Support

Thank you