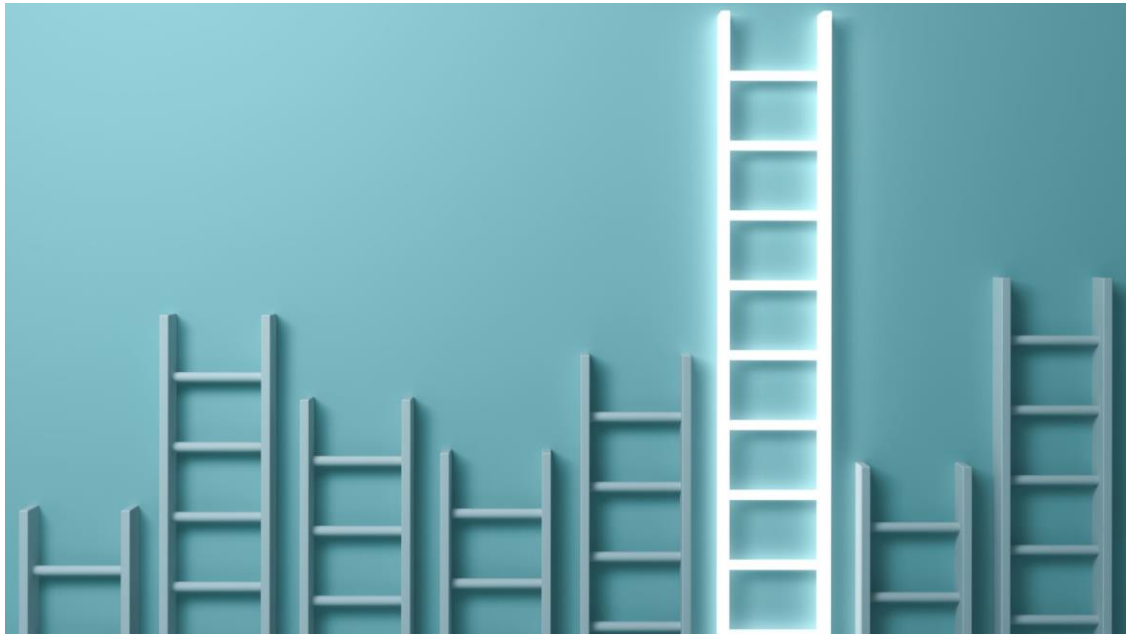
Professional growth and NCS students support

IN

SIR ELLIS KADOORIE PRIMARY SCHOOL



INTRODUCTION

- Involve P.4 students, 4 classes in total
- over 70% of the students are non-Chinese speaking students (NCS)
- Most of the students learning abilities are limited due to the lack of family support or the low motivation in learning
- Topics selected for the program are perimeters, areas and fractions

Identify NCS students' needs and strength

Students general weakness :

- **weak in English**
  causing poor result on solving problems on perimeter and area e.g. the length is 4 times of the width

- **low motivation in memorizing the times tables, low ability in doing multiplication and division**
  causing poor result on all the topics e.g. changing mixed numbers to improper fractions and changing improper fractions to mixed numbers

Identify NCS students' needs and strength

Students general weakness :

- **Low motivation in memorizing the formula**
  causing poor result on memorizing the formula of perimeter and area, and the way to change the forms of fractions

Students' general strength

- Easily motivated by videos, stories or exciting quizzes.
- Willing to try new activities

Carry out according to individual class' & subject teachers' styles

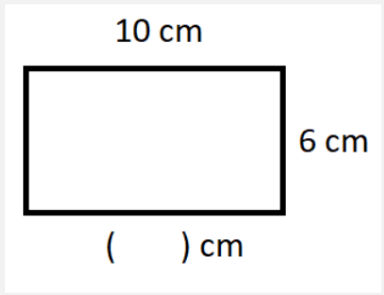
- A class of students who have extremely low ability in maths (Split class)
- When learning perimeter, mainly addition and subtraction were used to solve the questions
- Understanding the concept outweighs solving the questions by forcing them to use multiplication

Log in - Kahoot! | 郭伴 - wong kam man - Outlook | Kahoot! Creator

create.kahoot.it/creator/de576330-3b55-46b9-a39b-77b1f2f4c347

1) The length of this rectangle is :

18



7
Answers

▲ 6 cm

◆ 10 cm

● 16 cm

■ 4 cm

Exit preview | 1 of 5

Kahoot! Creator - ... | from kam - Power... | introduction and c... | SEKPS Network Dr...

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create.kahoot.it/creator/de576330-3b55-46b9-a39b-77b1f2f4c347

3) Find the length of this rectangle.

18

7
Answers

▲ 2 cm

◆ 4 cm

● cannot tell the answer

■ 8 cm

Exit preview | 3 of 5

Kahoot! Creator - ... | from kam - Power... | introduction and c... | SEKPS Network Dr... | Lesson Observatio...

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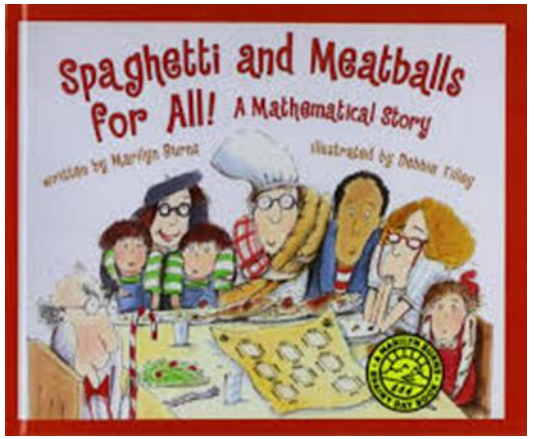
2/7/2020

Propose strategies to be used and to be tested

- Activities
- Manipulative
- Story-telling



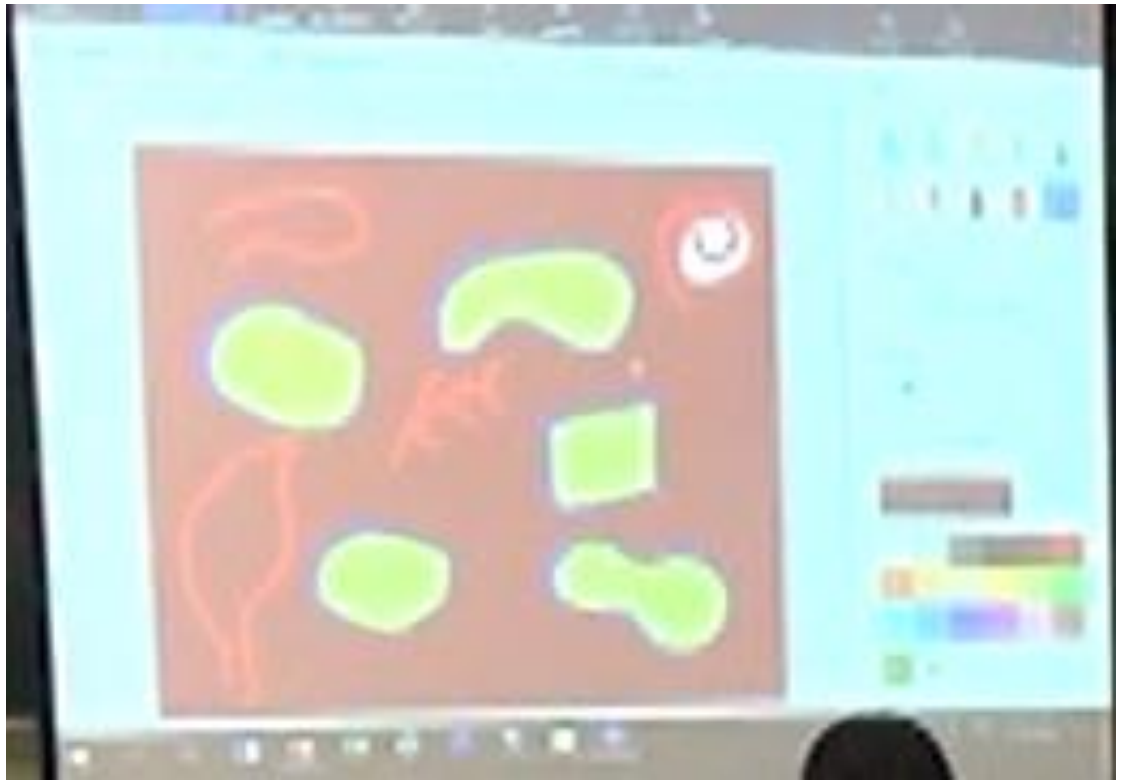
Activities

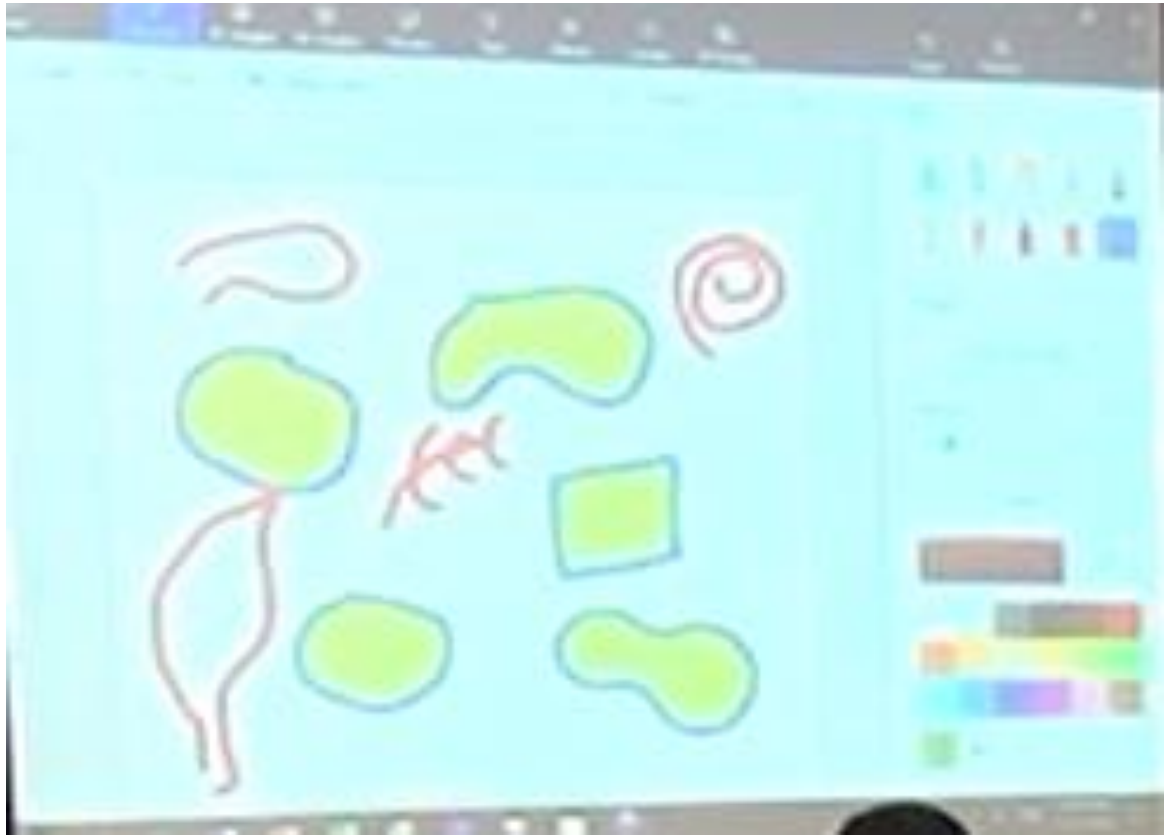
- Measurement activities
- Paper folding & Coloring

Manipulative

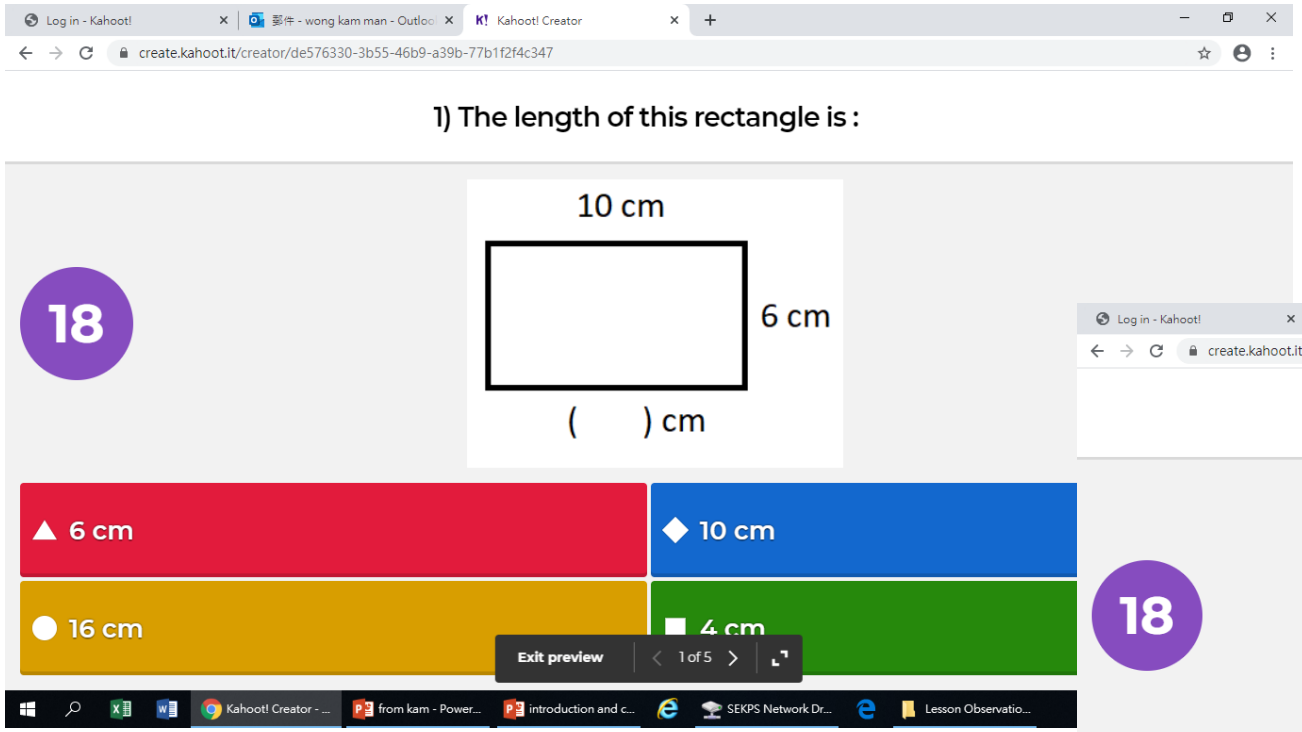
- Hands-on tools (strings, paper…etc)
- Virtual manipulative (Apps, Paint, Kahoot… etc)

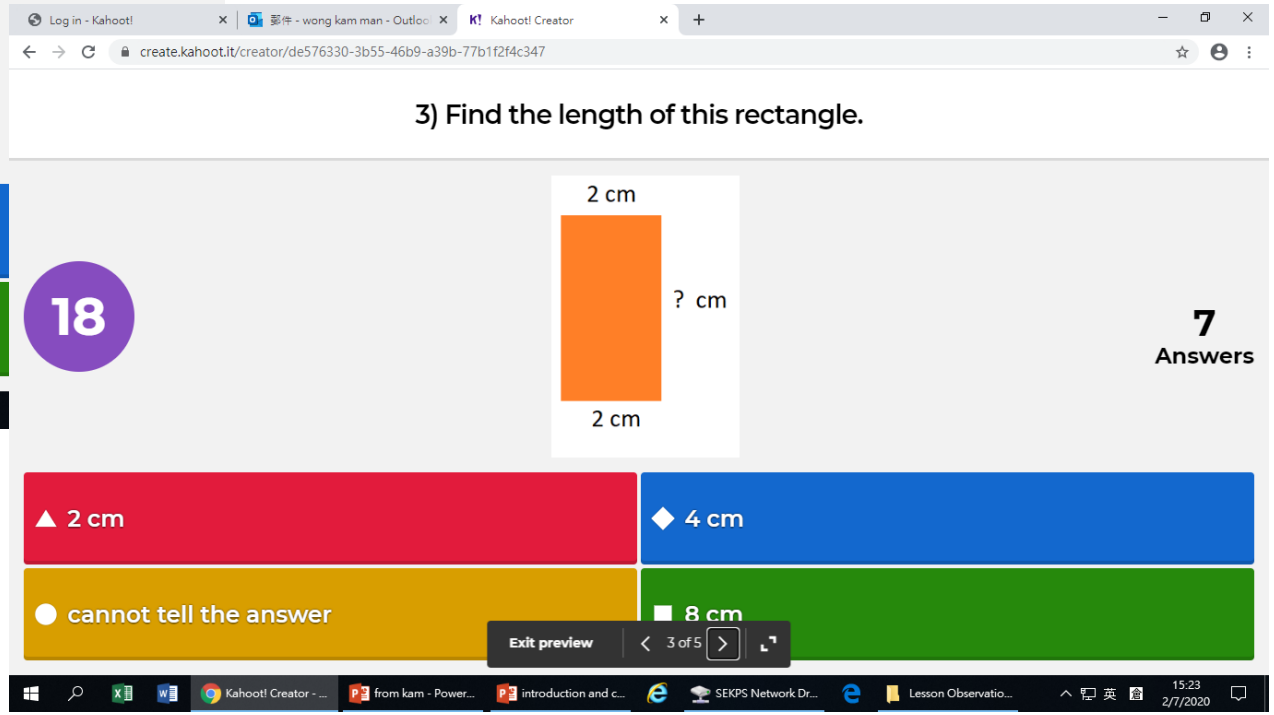
Concept of closed shape by "Paint".





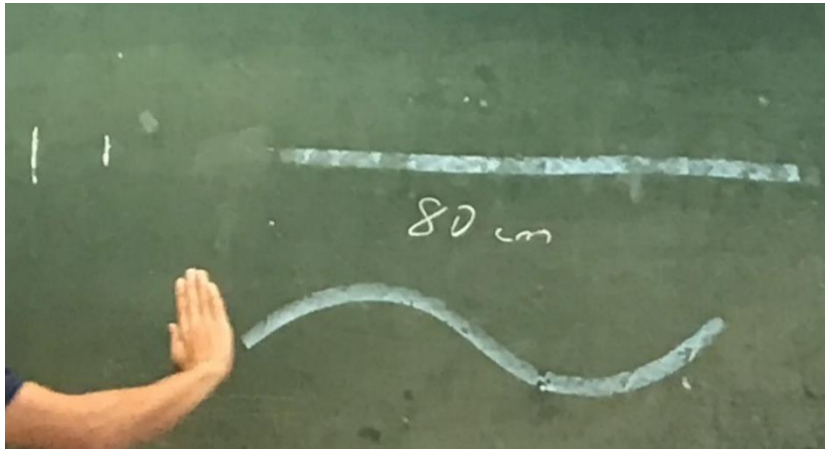
Revise properties of rectangle by "Kahoot"

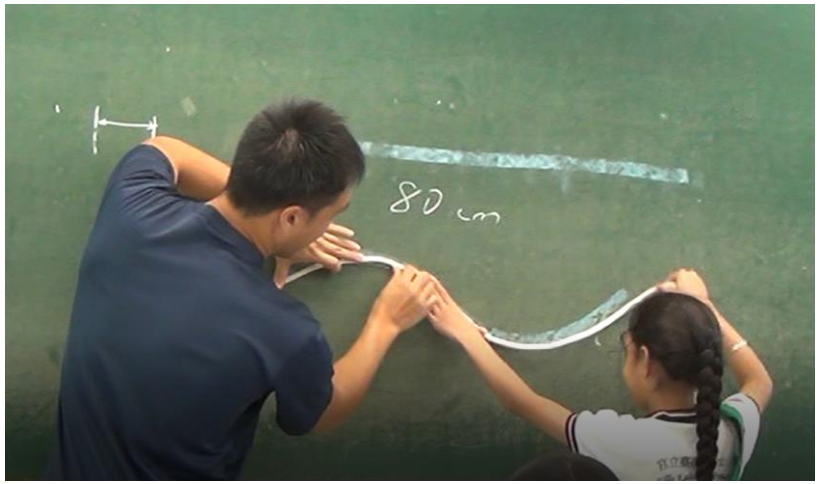




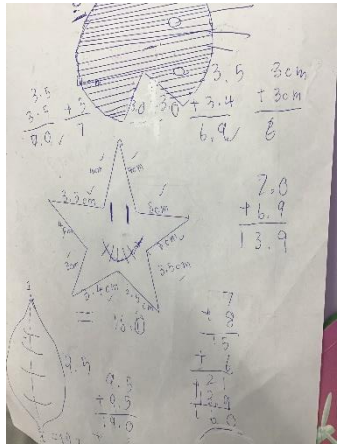
Measure straight line and curve on the blackboard.

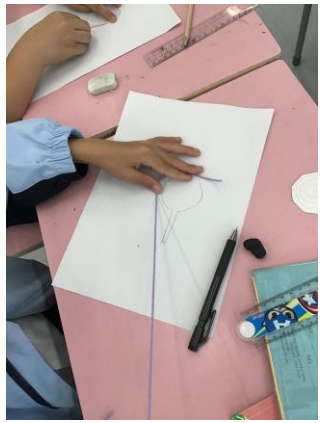
(Concept of estimation and actual measurement.)

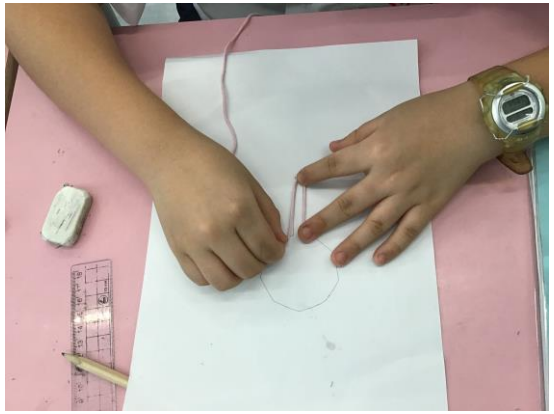


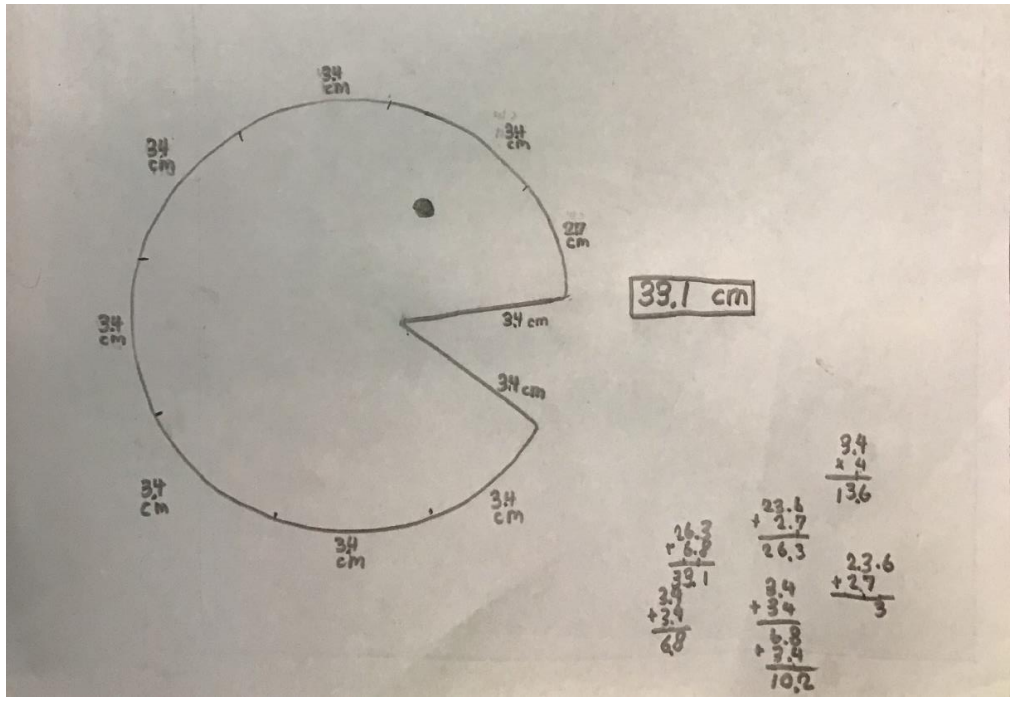


Measure figures on worksheet. (Straight lines, curve lines)

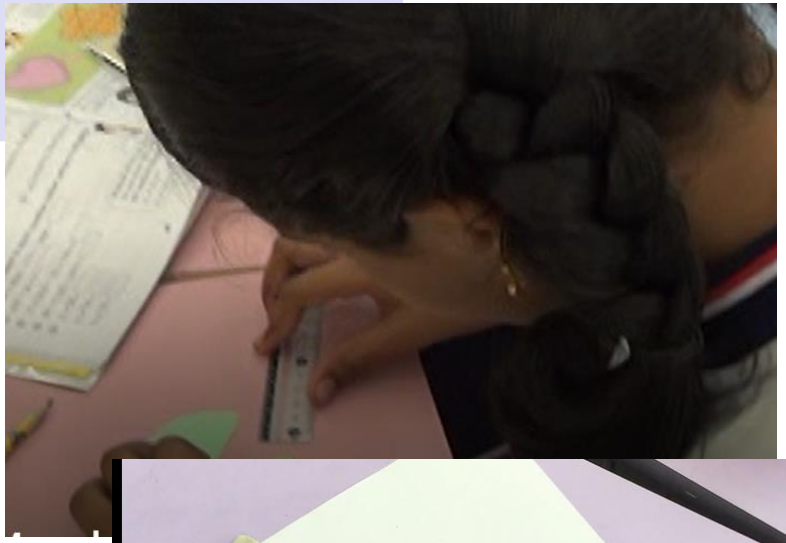


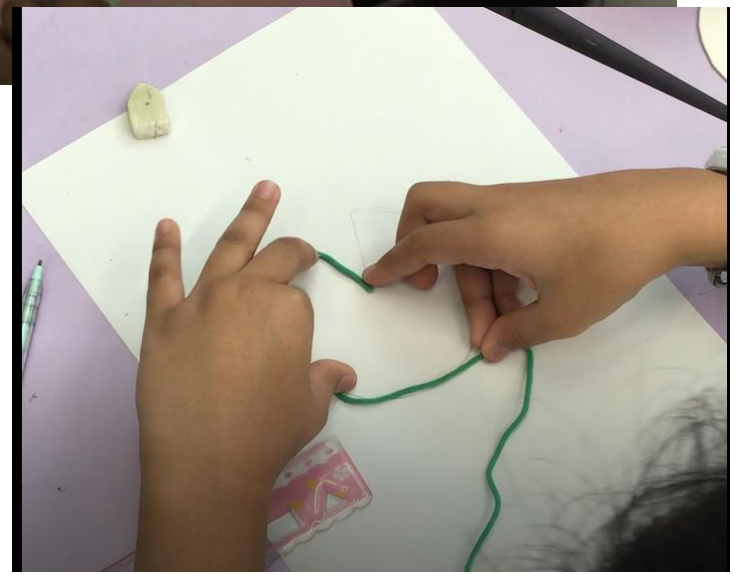


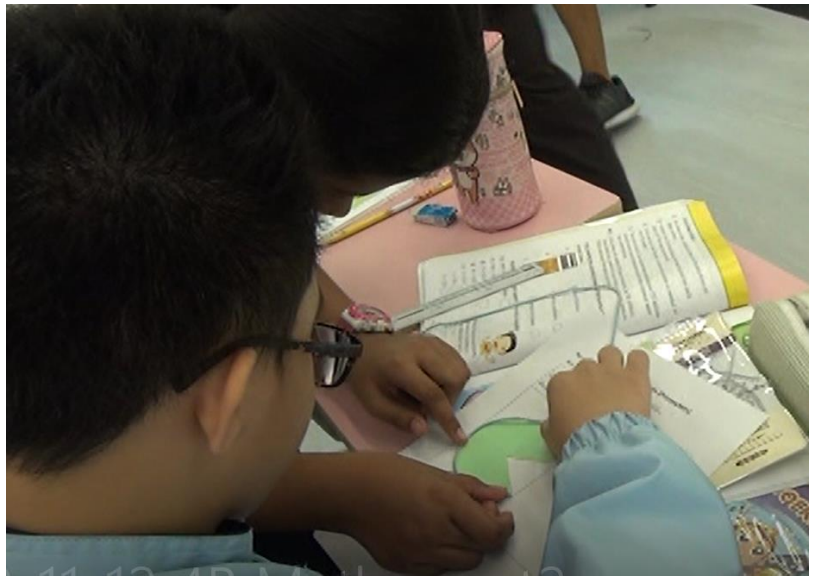




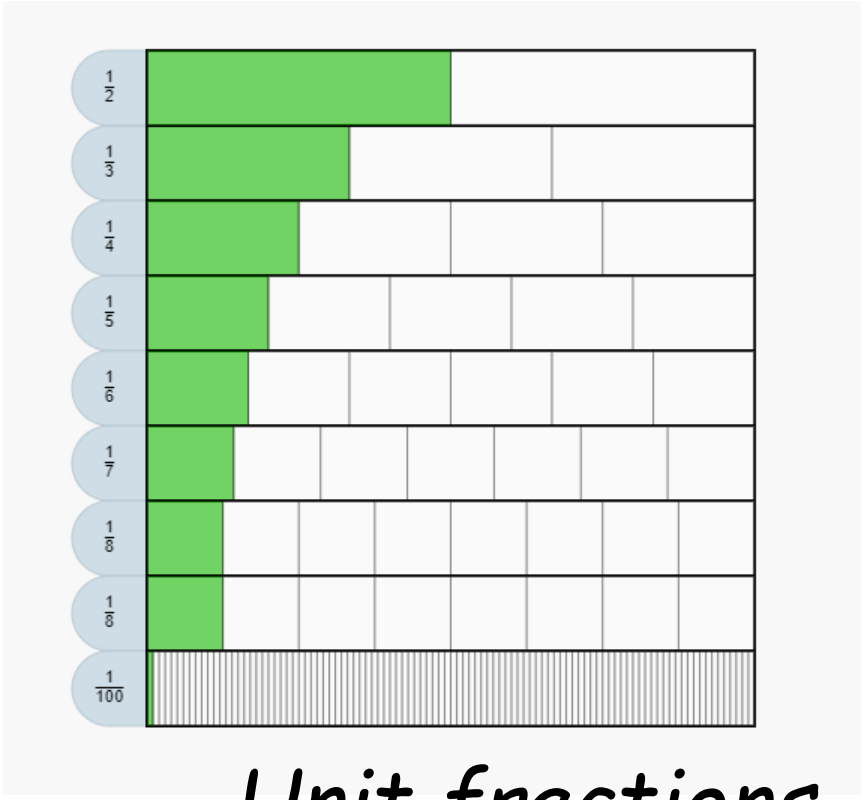
Measure Pac-Man





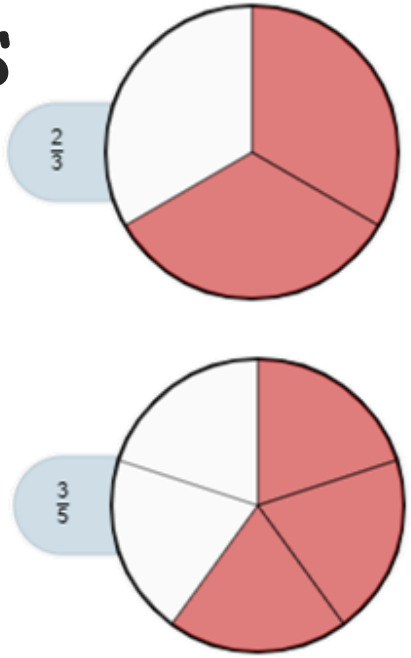


The Math Learning Centre App -Fraction



Unit fractions

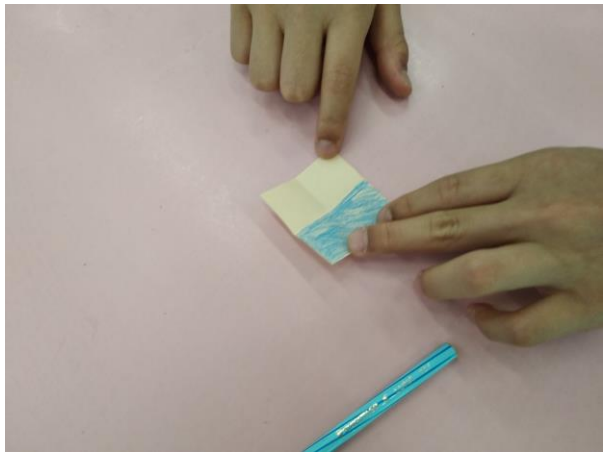
Comparing Fractions



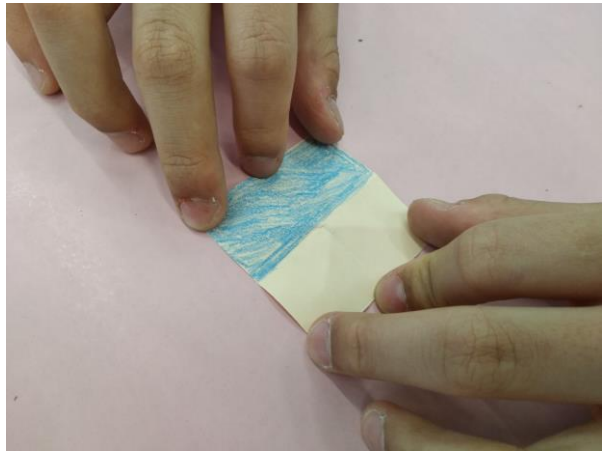
$$\frac{10}{15} > \frac{9}{15} \qquad \frac{2}{3} > \frac{3}{5}$$

Paper folding
&
colouring

$\frac{1}{2}$



$\frac{2}{4}$



$\frac{4}{8}$

Sir Ellis Kadoorie (S) Primary School
Primary 4 Mathematics
2nd term Worksheet

Class: P.4 6

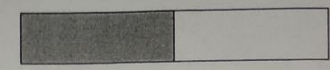
Name: _____ (13)

Marks: 15/16

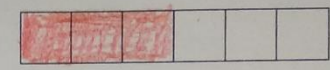
Date: 11-6-2020

A. Find the equivalent fractions of $\frac{1}{2}$.

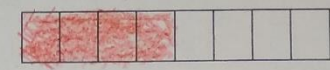
Color the fraction strips .



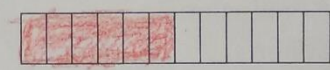
1. $\frac{1}{2} = \frac{1\times3}{2\times3} = \frac{(3)}{(6)}$



2. $\frac{1}{2} = \frac{1\times4}{2\times4} = \frac{(4)}{(8)}$



3. $\frac{1}{2} = \frac{1\times(6)}{2\times(6)} = \frac{(6)}{(12)}$



4. $\frac{1}{2} = \frac{1\times(8)}{2\times(8)} = \frac{(8)}{(16)}$

Discussion: What is difference among these fractions?
What is the same among these fractions?

When you **multiply** both the numerator and denominator **by** the **same** number, the value of the fraction will be

*(**the same** / **different**) .

A story for expanding and reducing fractions

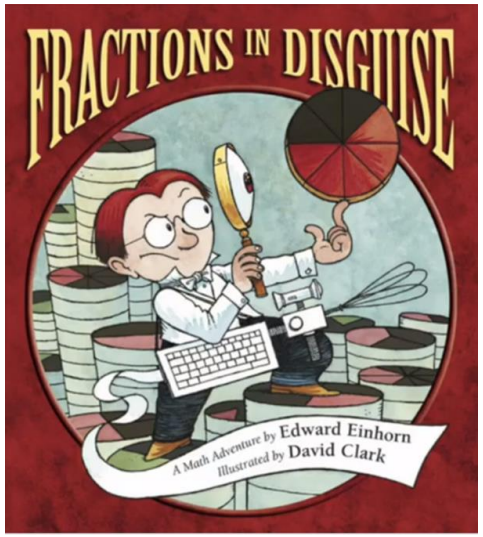
Yesterday mother made a cake. She cut 1/3 for me,1/3 for jojo, my younger sister, and she ate the last part.

Today mother buys a pizza home. Both Jojo and I wanted to have more. So mother cuts the pizza in 6 equal parts.She gave two parts to me, two parts to Jojo, and ate the remaining parts.

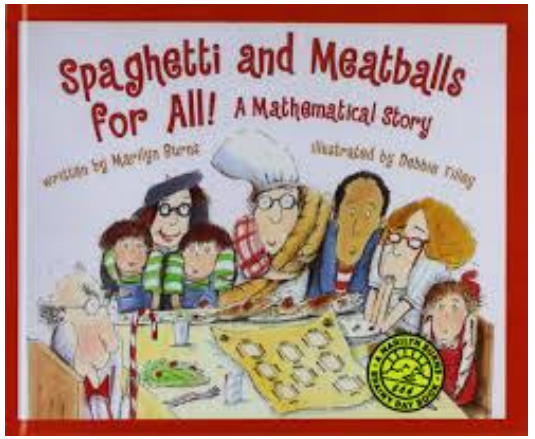
All of us ate the pizza happily, satisfied.

Story-telling

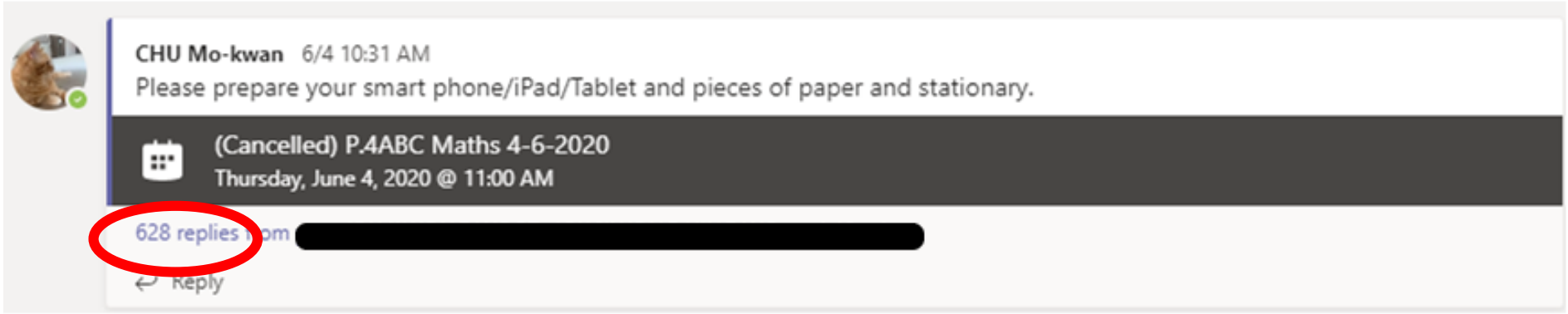
- Fraction in disguise (Video teaching)
  - Pupils learn the concept of reducing fractions through this story

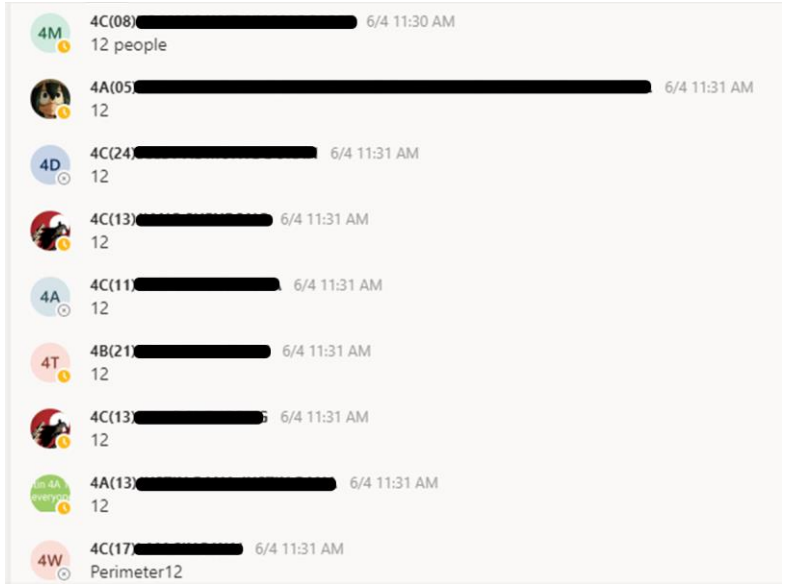


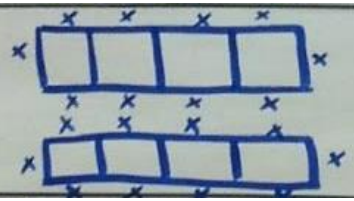
- Spaghetti and meatballs for all (Online teaching)
  - Explore the concepts of **area** and **perimeter**

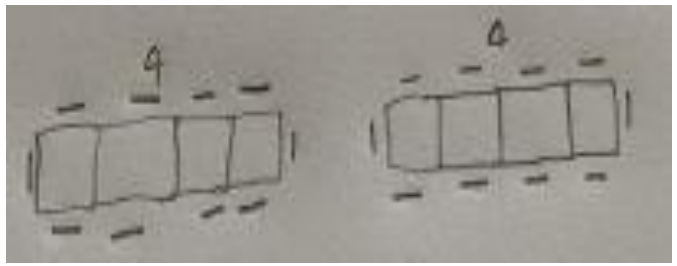


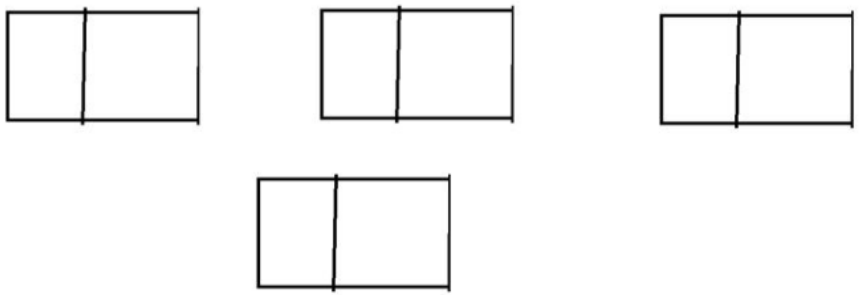
Students' response

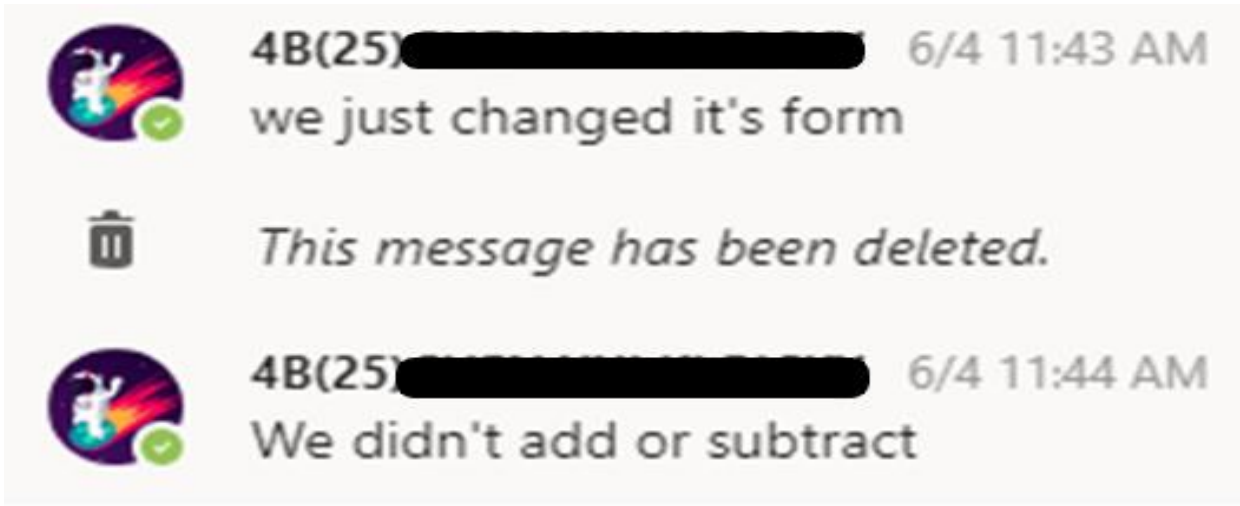


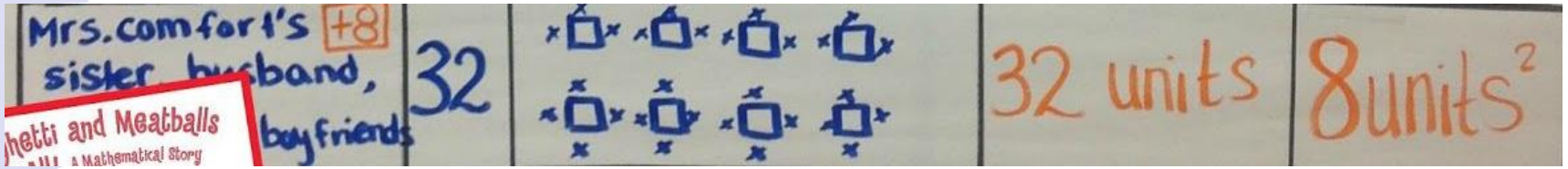


Mrs. Comfort's father and mother +2	20		20 units	8 units²









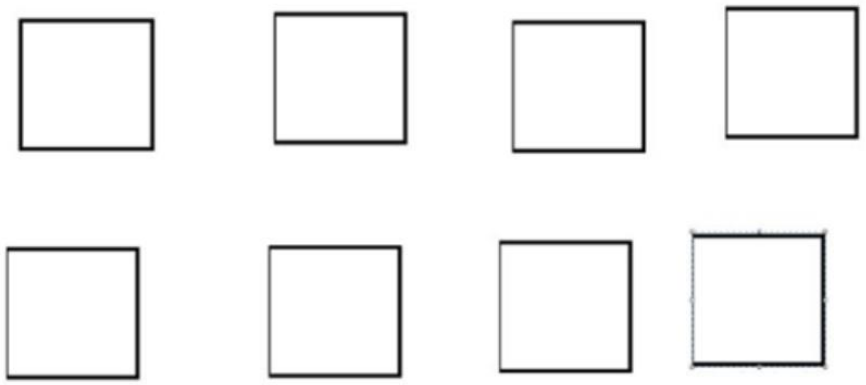
4B(25) [redacted] 6/4 11:56 A

□ □ □ □ □ □ □ □

4B(25) [redacted]

We divide and divide until we can't

4C(13) [redacted] 6/4 11:56 AM



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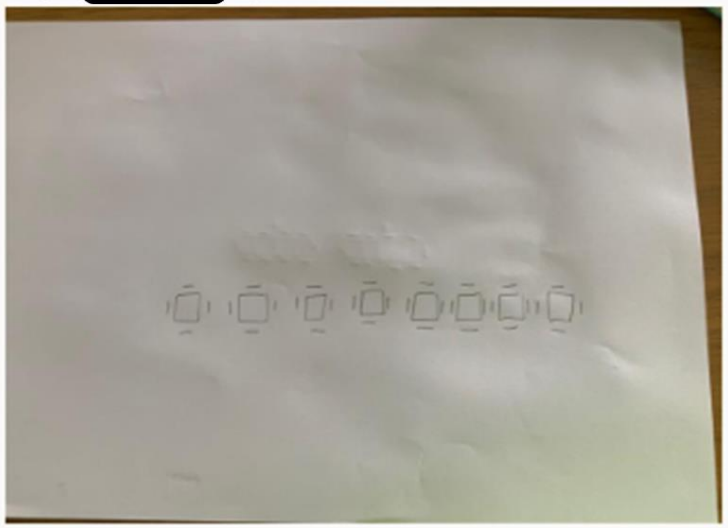

4C(12) [redacted] 6/4 11:57 AM

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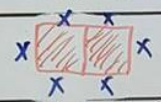
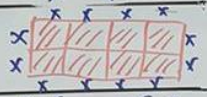
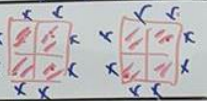
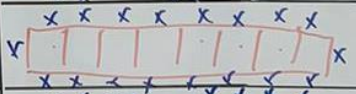
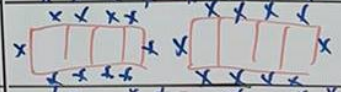
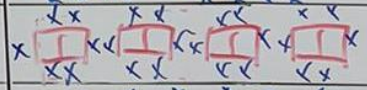
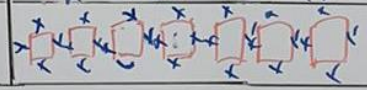
Spaghetti & Meatballs for All

Guest Seated	No. of ppl	Table Arrangment	Perimeter	Area
Mr. & Mrs. Comfort daughter, husband + 2 children	6		6	2
Mrs. C's brother + wife, daughter husband + twins 6	12		12	8
Neighbors Son + daughter 4	16		16	8
Mr. C's father + mother 2	18		18	8
Mrs. C's father + mother 2	20		20	8
Comfort's Son + wife + twins 4	24		24	8
Mrs. C's Sister + husband. triplets + their boyfriends	32		32	8

3 3

After observation sharing

- Pick up strategies that really work
  - Kahoot
  - Paint
  - Story-telling

- Suggestion for improvement
  - Language
  - Visualize the concept

Areas that we would like to explore in the future:

1. Select related Maths story books (help to improve the performance on application problems)
2. Sharing on recent research findings related to maths education or professional insight e.g. the pros and cons on using calculators, the importance of using maths dialogue while the students first language is not English

Areas that we would like to have more support on:

3. Chance to explore new methods or Apps that are helpful in teaching and learning