Primary 1 Parents' Mathematics Workshop 2022

Objectives

Parents will be able to:

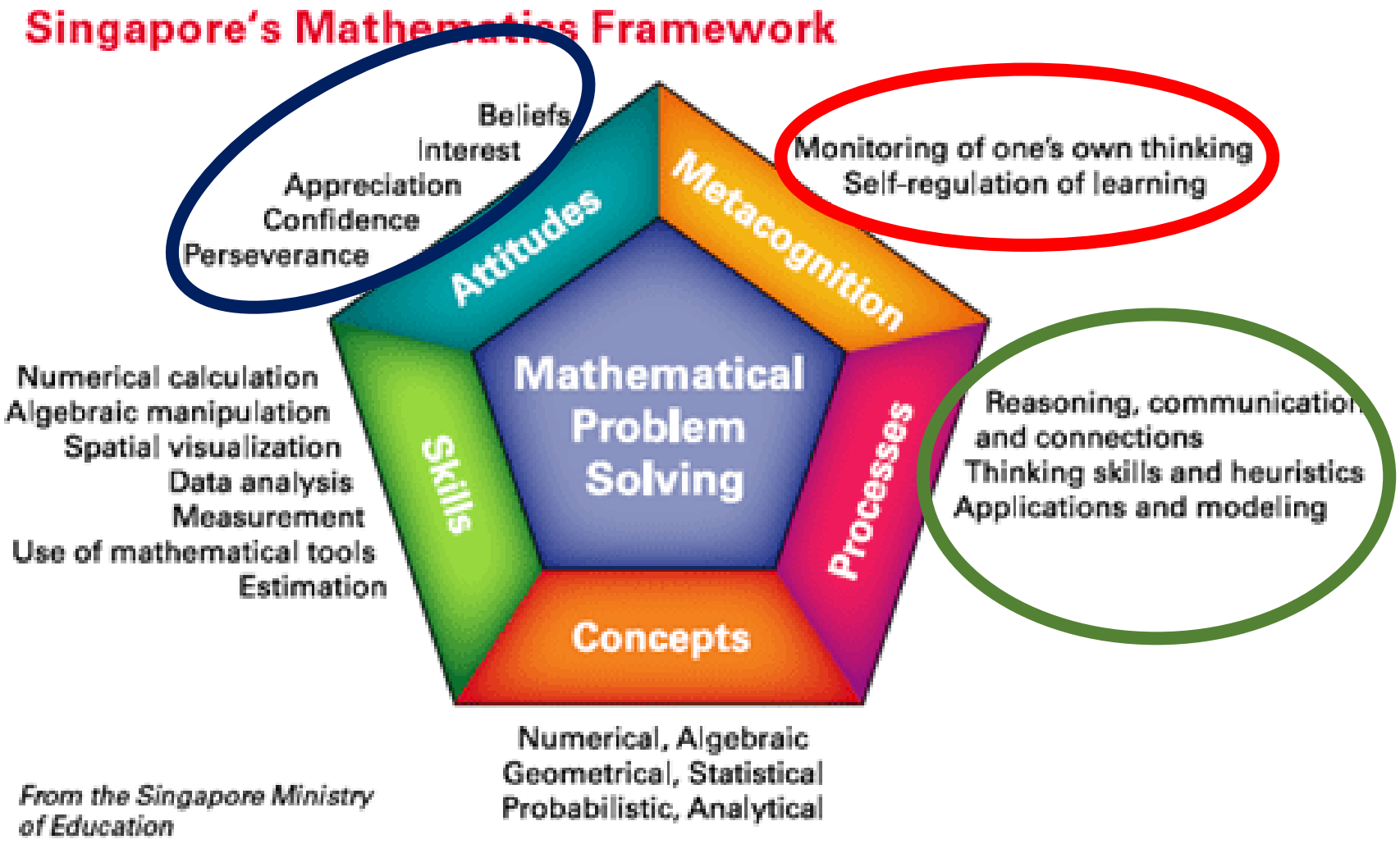
1. support the child's mathematical learning using different strategies and activities

2. guide the child to connect mathematics concepts and skills to real life situations

We make the learning of mathematics fun, meaningful and relevant so that the students develop positive attitudes towards Mathematics.

Mathematical processes allow students to connect mathematics that they have learnt to the real world. Through mathematical modelling, they learn to deal with ambiguity, make connections, select and apply appropriate mathematics concepts and skills to help them make informed decisions.

We teach students to monitor their own thinking so that they know when and how to use the strategies, to think aloud and reflect on what they are doing.



Aims of Mathematics

- Acquire and apply mathematical concepts and skills;
- Develop positive attitudes towards mathematics.

Aims of Mathematics

- Develop cognitive and metacognitive skills through mathematical approach to problem solving

  - Cognitive: recalling, understanding, knowing the process.

    Eg: different ways to add - count one by one, count on, make tens

  - Metacognitive: choosing and applying the appropriate method, checking if their answers make sense

P1 Mathematics

Number and Algebra	Measurement and Geometry	Statistics
• Counting • Number Bonds • Numbers to 100 • Addition, Subtraction, Multiplication and Division	• Shapes • Length • Money • Time	• Picture Graphs

Let’s look at this activity

How many more to make 10 / 20 /100?

Example: Make 5

3

Make 10

6

Make 20

17

Make 100

95

Why do we do this activity?

This is one example of Factual Fluency activities we do in class.

This ability to recall the basic facts in all four operations accurately, quickly and effortlessly helps the students **attain a level of mastery** that enables them to retrieve the mathematical facts for long-term memory without conscious effort.

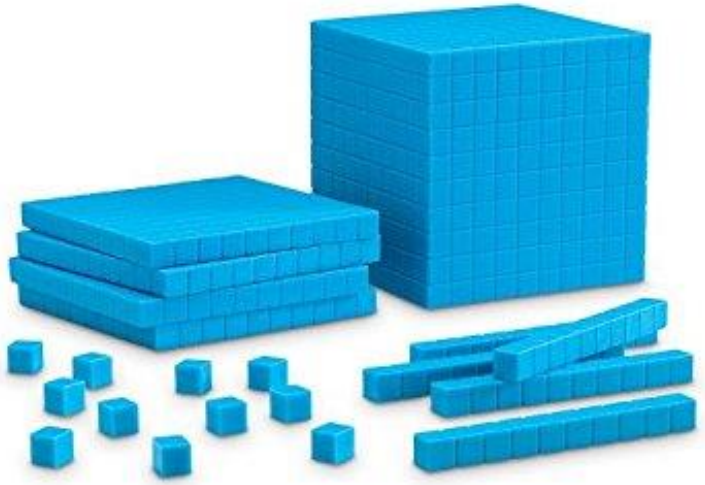
Developing Number Sense

- What are numbers?
  - Quantities, Count, Relations, Ordering, Words, Numerals, Position
- How big is 10, 100 etc.?
- How do we help children develop number sense?

Why is there a need to develop Number Sense?

- It encourages students to think flexibly and promotes confidence with **numbers**.
- It builds the foundation needed for simple life skills.

Manipulatives used in the classroom



We use link cubes, base ten sets and geared clocks during lessons to make learning experiences more meaningful for the students.

Hundreds Chart

100-Chart

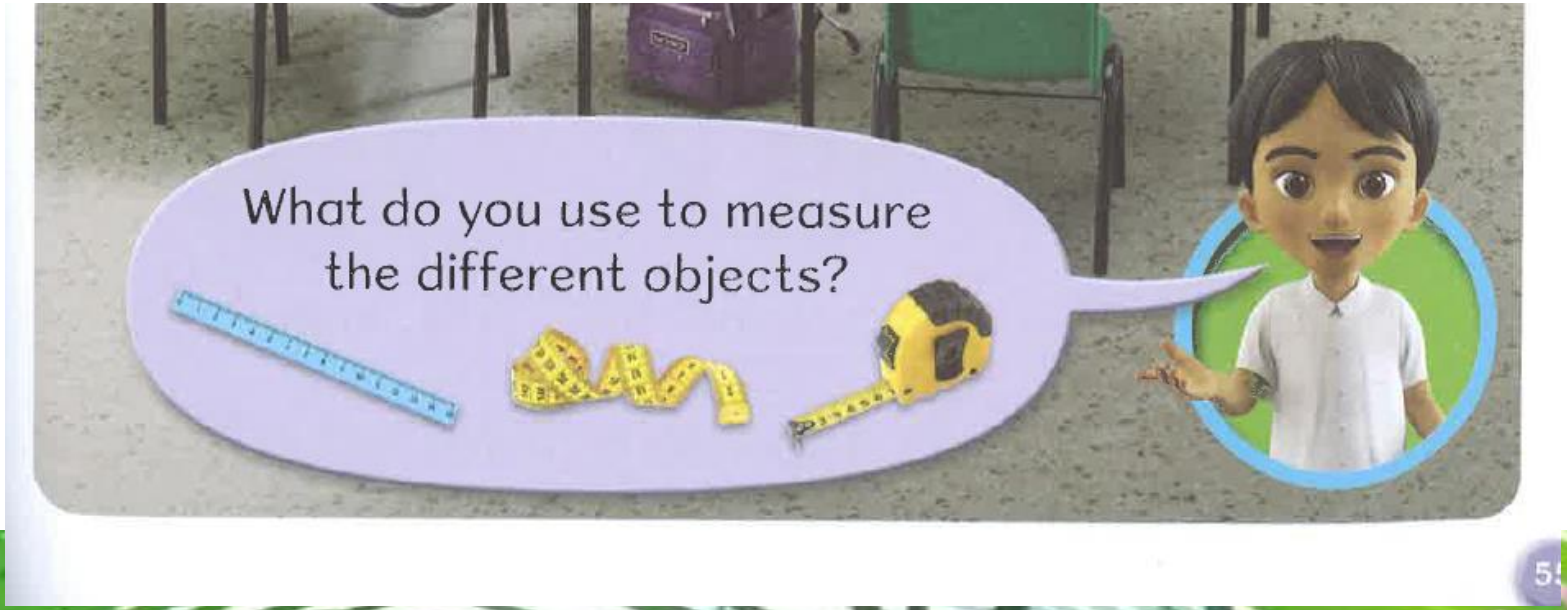
91	92	93	94	95	96	97	98	99	100 one hundred
81	82	83	84	85	86	87	88	89	90 ninety
71	72	73	74	75	76	77	78	79	80 eighty
61	62	63	64	65	66	67	68	69	70 seventy
51	52	53	54	55	56	57	58	59	60 sixty
41	42	43	44	45	46	47	48	49	50 fifty
31	32	33	34	35	36	37	38	39	40 forty
21	22	23	24	25	26	27	28	29	30 thirty
11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

Multiplication Chart

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

Math in Real Life

There are many ways how Math is used in daily life.



Primary Mathematics
Textbook 1B Pg 55
Length

Math in Real Life

Primary Mathematics
Textbook 1A Pg 14
Numbers to 10

How are numbers being used?

HDB Flat—Block 5

Bus 2

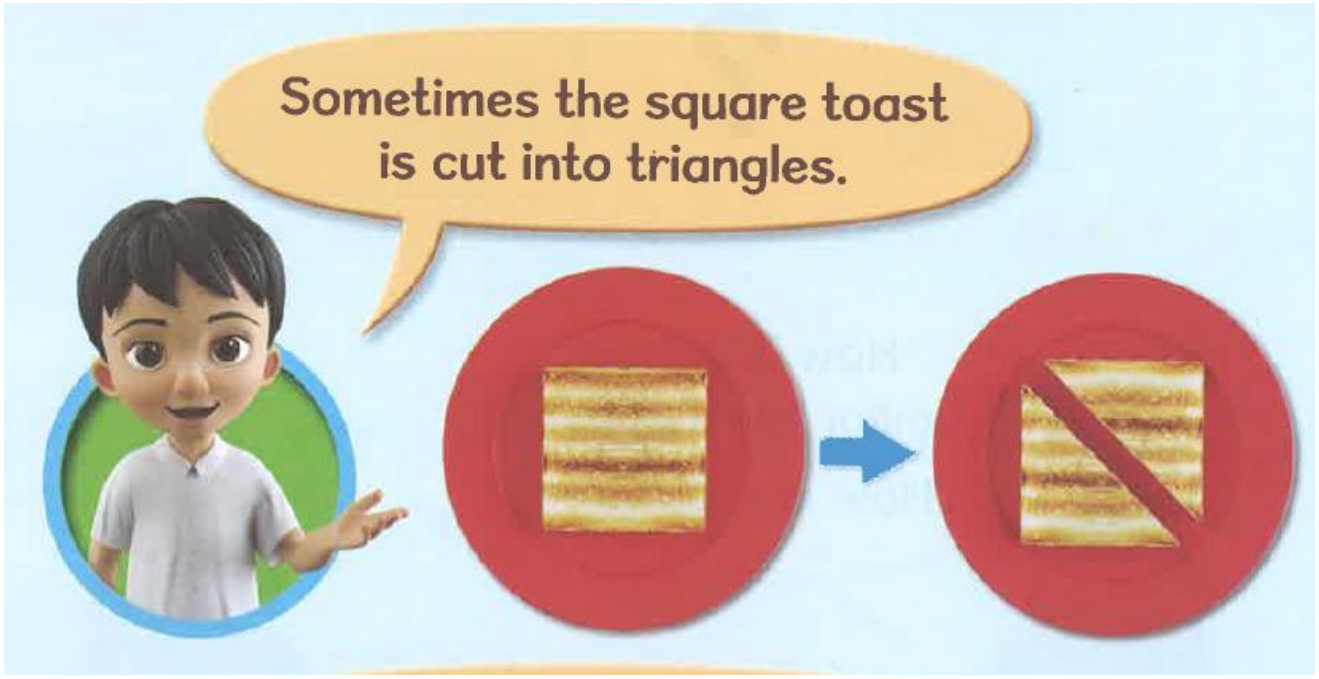
Naming/Labeling

6 crayons

4 people

Counting

Math in Real Life



Primary Mathematics
Textbook 1A Pg 61 Shapes

Primary Mathematics
Textbook 1A Pg 70
Ordinal Numbers

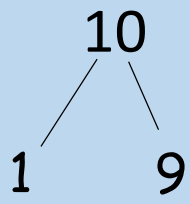
Relating Math to Real Life

Use the following objects which can be found at home to form Number Bonds:

- Rubber bands
- Ice-cream sticks
- Bottle caps
- Bread tags

____and ___ make ___

Eg: 1 and 9 make 10

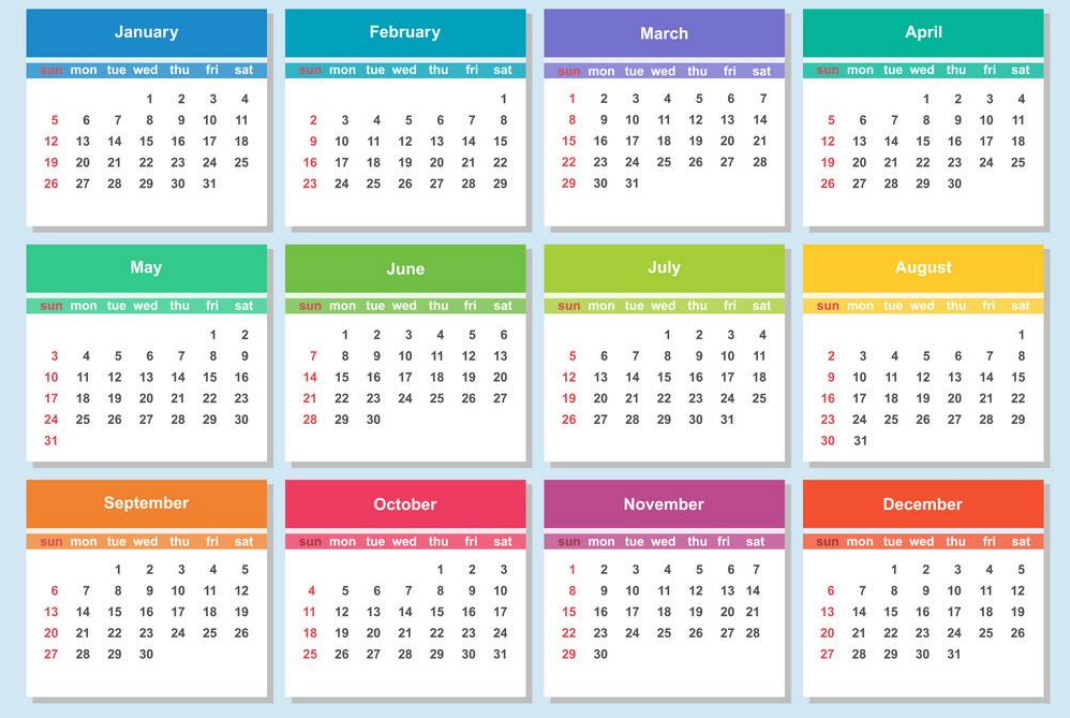


Relating Math to Real Life

Use readily available manipulatives

- For Counting
- ✓ Coins, Colour Pencils
- ✓ Sweets, chocolates, Macaroni

Relating Math to Real Life



Get your child to **count/ add/ subtract** the number days to get to a special date, e.g.: birthdays, school holidays.

Relating Math to Real Life

How do we read time & calculate duration?

By using mathematics!

How long is the movie?

What time is recess?

Relating Math to Real Life

When we park our cars …

PARKING RATES

MOTORCARS	
Monday to Saturday	
7.00 am to 5.00 pm	$0.50 per 1/2 Hour or part thereof
5.00 pm to 12.00 mn	$1.00 per Entry
12 00 mn to 7.00 am	$2.00 per Entry
Sunday & Public Holiday	
7.00 am to 12.00 mn	$1.00 per Entry
12.00 mn to 7.00 am	$2.00 per Entry
VAN / HEAVY VEHICLE	$1.00 per 1/2 Hour or part thereof
MOTORCYCLE	$0.65 per Entry
SEASON PARKING	
Motorcar	$270.00 per Quarter
Motorcycle	$ 51.00 per Quarter

we need to know how much it would cost us.

Relating Math to Real Life

$4.50
Pasar Fuji Apple
800g

Offer

$4.55 ~~$5.75~~
Italy Ambrosia Apple
900g

Offer

$7.50 ~~$8.95~~
France Organic Juliet Apple Bag
800g • Organic

$6.95
Enza Organic Pacific Rose Apple
600g • Organic

Offer

$2.00 ~~$2.30~~
Sunshine Bread - Enriched Soft White
550g • Halal

$2.60
Gardenia Enriched White Bread - Wholemeal (Super Soft & Fine)
400g • Halal

$2.70
Sunshine Bread - Hokkaido Milk Toast
400g

$2.70
Sunshine Wholemeal Bread - Ultra Fine
400g • Halal

Budgeting for the family…

Do you have enough money to get what you want?

Relating Math to Real Life

Bargains

Which is more worth it?

Discounts

Relating Math to Real Life

How much do we save?

Sales and Promotion

Relating Math to Real Life

Measurement - Distance

Can a tall crane go under the gantry?

Relating Math to Real Life

Exceeding the Height Limit

ST PHOTOS: FRANCIS ONG

Crane collides with gantry, sending sign crashing onto taxi

By Diana Othman

A LORRY crashed into an overhead gantry in Sunset Way, which is in the

I heard a very loud sound. I stopped by the side of the road and looked behind as I was worried about my passenger."

The passenger was stunned but did not appear to be injured. Later, howev-

CRANE CRASH: The lorry's attached crane hit a height warning gantry, dislodging it (above). It fell onto Mr Lek's taxi (left), denting its roof and smashing the rear windscreen.

Relating Math to Real Life

Measurements

3000 ml

1 litre

Relating Math to Real Life

Fractions

What fraction of the pizza is left?

What fraction of the pizza is eaten?

Try this at home:

Activity:

Use egg carton for

- Counting
- Number Bonds
- Addition, Subtraction, Multiplication and Division

Try this at home:

Let’s Play and Learn

Instructions:

- Player 1 shakes the egg carton with the two beads in it. Add the 2 numbers that the beads landed on.
  Player takes note of the “total”.
- Player 2 does likewise and so forth.
- At the end of several rounds, each player to add up all the totals to get his final score.
- The player who adds up accurately and efficiently wins the game.
- It can be more than 1 player winning the game.

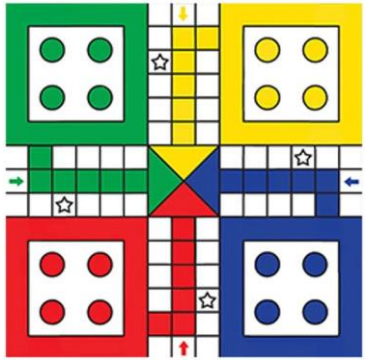
This can be done for subtraction, multiplication and division.
You just need to change the numbers in the tray if necessary.

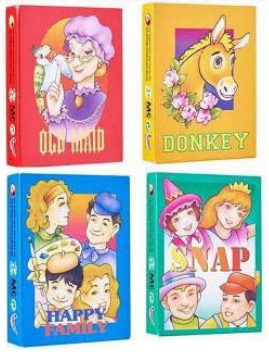
Play and Learn through

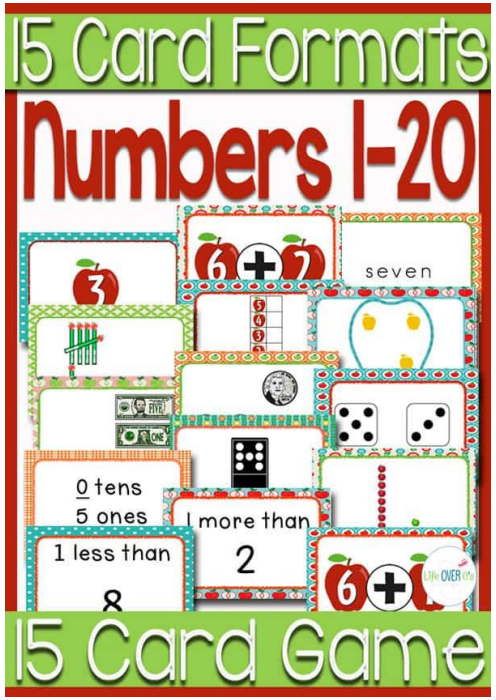
-Card Games

-Board Games

-Online Games

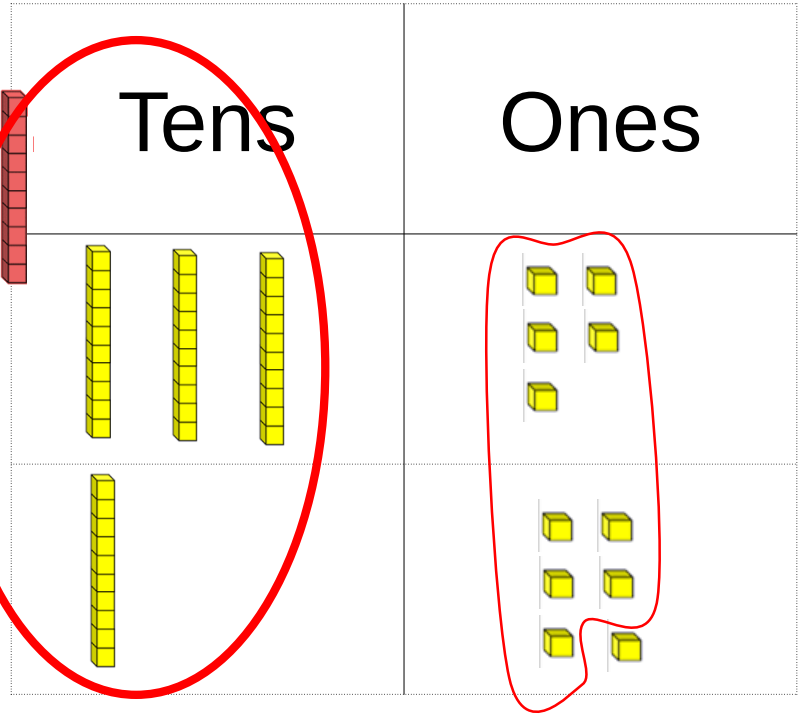






Integration of knowledge and skills

Addition within 100



	Tens	Ones
	1 3	5
+	1	6
	5	1

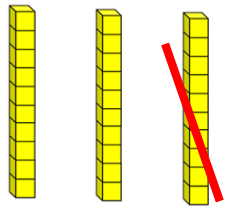
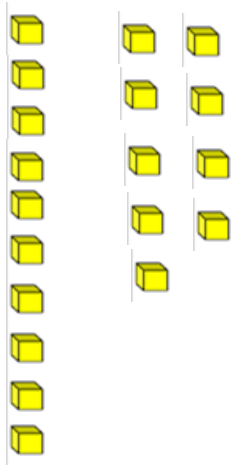
5 ones + 6 ones = 11 ones

11 ones = 1 ten 1 ones

1 ten + 3 tens + 1 ten = 5 tens

Integration of knowledge and skills

Subtraction within 100

Tens	Ones
	

	Tens	Ones
	2 ~~3~~	15 ~~5~~
—	1	6
	1	9

1 ten = 10 ones

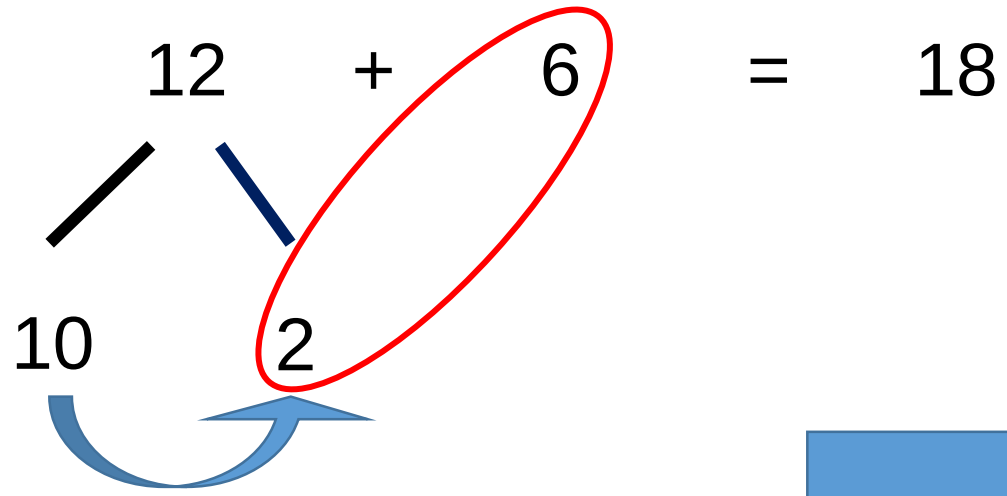
10 ones + 5 ones = 15 ones

15 ones – 6 ones = 9 ones

2 tens – 1 ten = 1 ten

Integration of knowledge and skills

Break the number into smaller parts

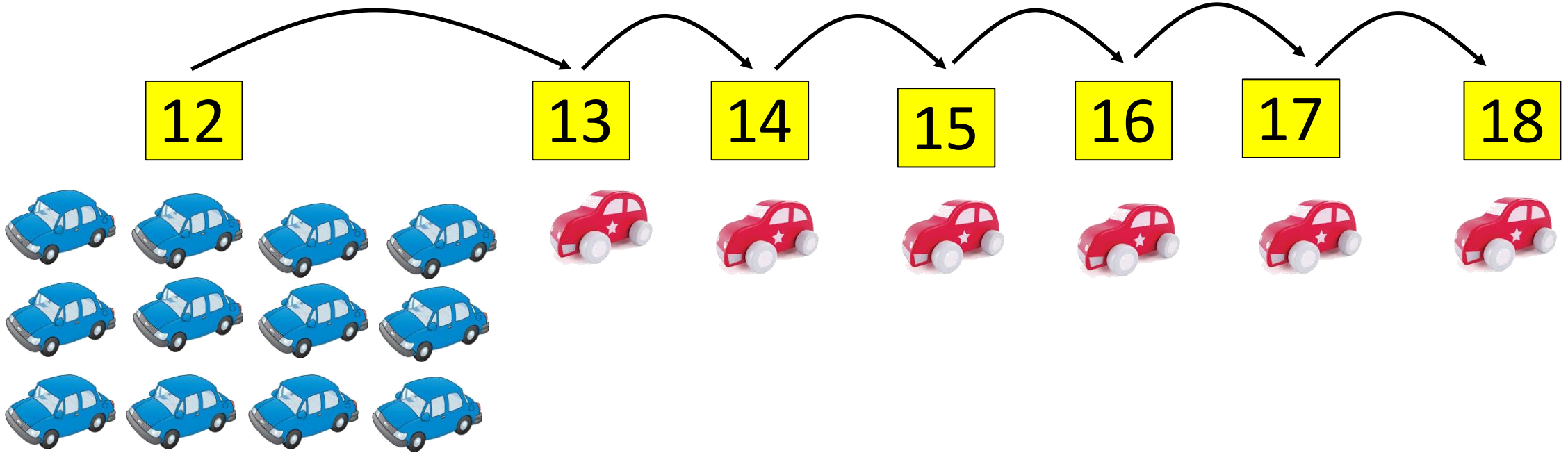


6 and 2 make 8
10 and 8 make 18

Number bonds (adding ones first) Addition within 20

Integration of knowledge and skills

Count on 12 + 6 = 18



Integration of knowledge and skills

- Use the textbooks as a guide and reference to what is being taught in class

Learning through Thinking

- Students communicate mathematically through questioning and reasoning

- Students self-regulate their own thinking
(also known as metacognition)

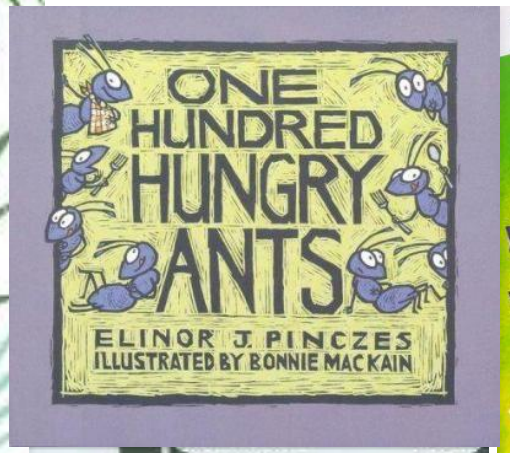
Class Activities

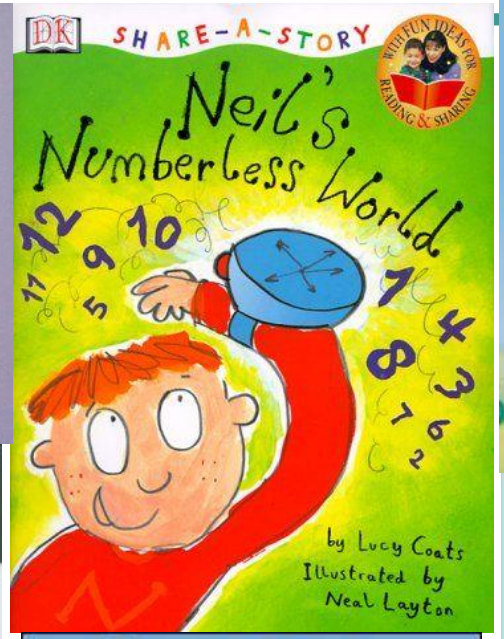
uses small group tasks and activities as a learning experience.

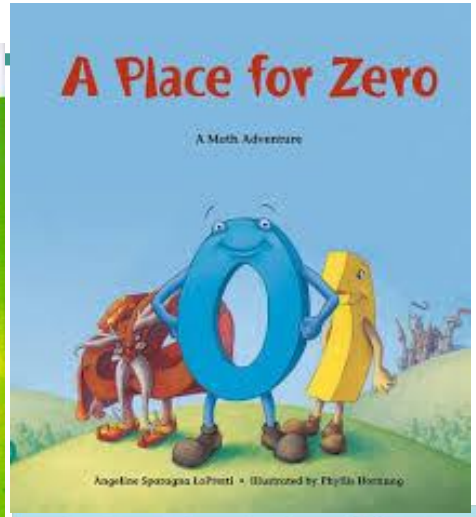
- Use of Cooperative Learning Strategies to learn with peers and be accountable for their own learning

- Use of the mini whiteboard/ technology to respond individually, and during pair and group work

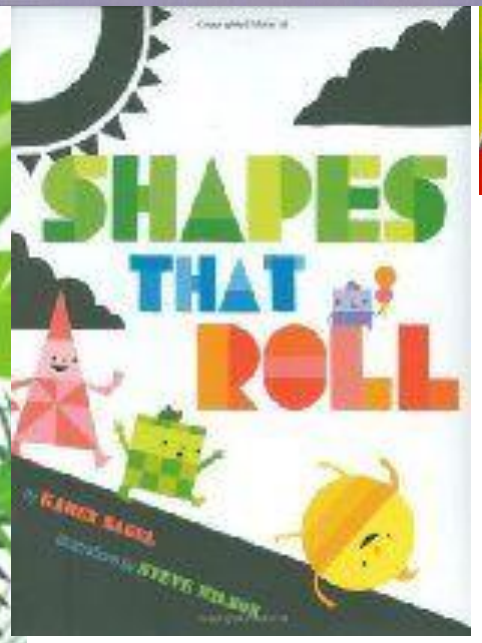
Storybooks

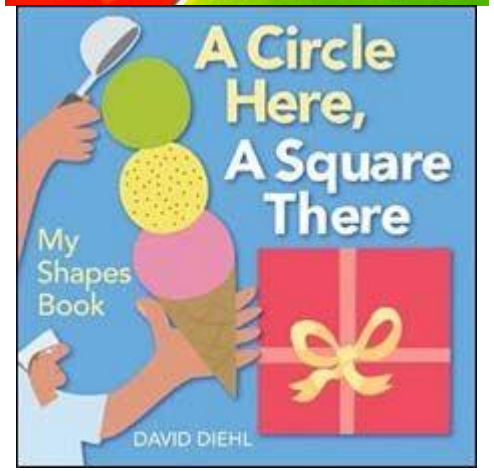

ONE HUNDRED HUNGRY ANTS
ELINOR J. PINCZES
ILLUSTRATED BY BONNIE MACKAIN

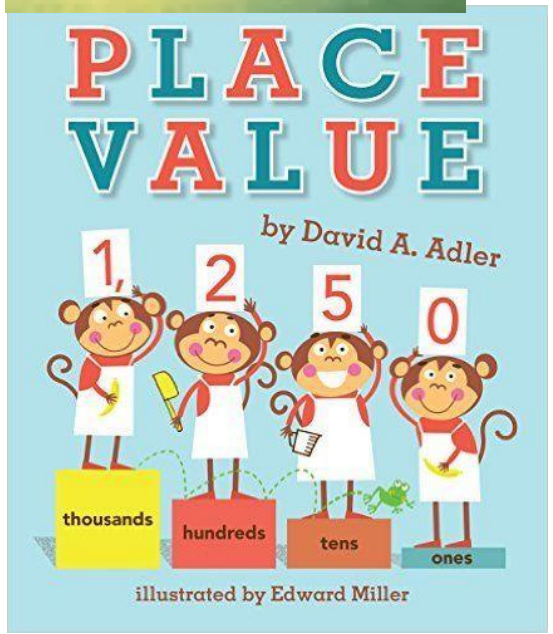

DK
SHARE-A-STORY
WITH FUN IDEAS FOR READING & SHARING
Neil's Numberless World
by Lucy Coats
Illustrated by Neal Layton

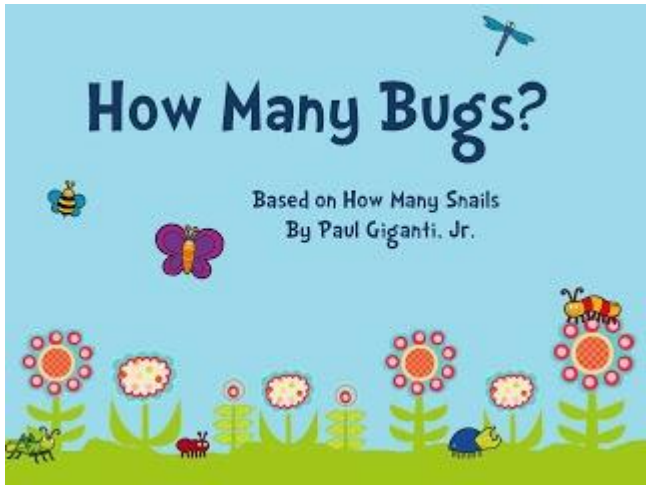

A Place for Zero
A Math Adventure


READ

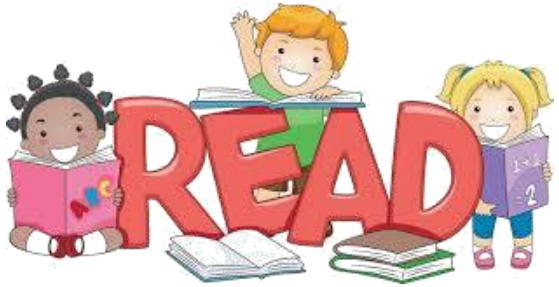

SHAPES THAT ROLL


A Circle Here, A Square There
My Shapes Book
DAVID DIEHL


PLACE VALUE
by David A. Adler
1,
2
5
0
thousands
hundreds
tens
ones
illustrated by Edward Miller


How Many Bugs?
Based on How Many Snails
By Paul Giganti, Jr.

Storybooks



- Provide meaningful context for mathematical content
- Increase the level of interest
- Explain/Review a mathematics concept or specific skill
- Model an interesting problem
- Promote critical thinking

Read a story – Telling Time with Big Mama Cat

https://youtu.be/V4zeGFpBabE

Tips to Support your Child at Home

Strategies For Parents in Coaching

Make it Fun!

Confidence
Curiosity
Courage

Reinforce positive behaviour and attitude

PRAISE

Focus on effort, not mistakes

Pose problems according to their current level of knowledge

Make connections to real life

Focus on Child's progress and ability

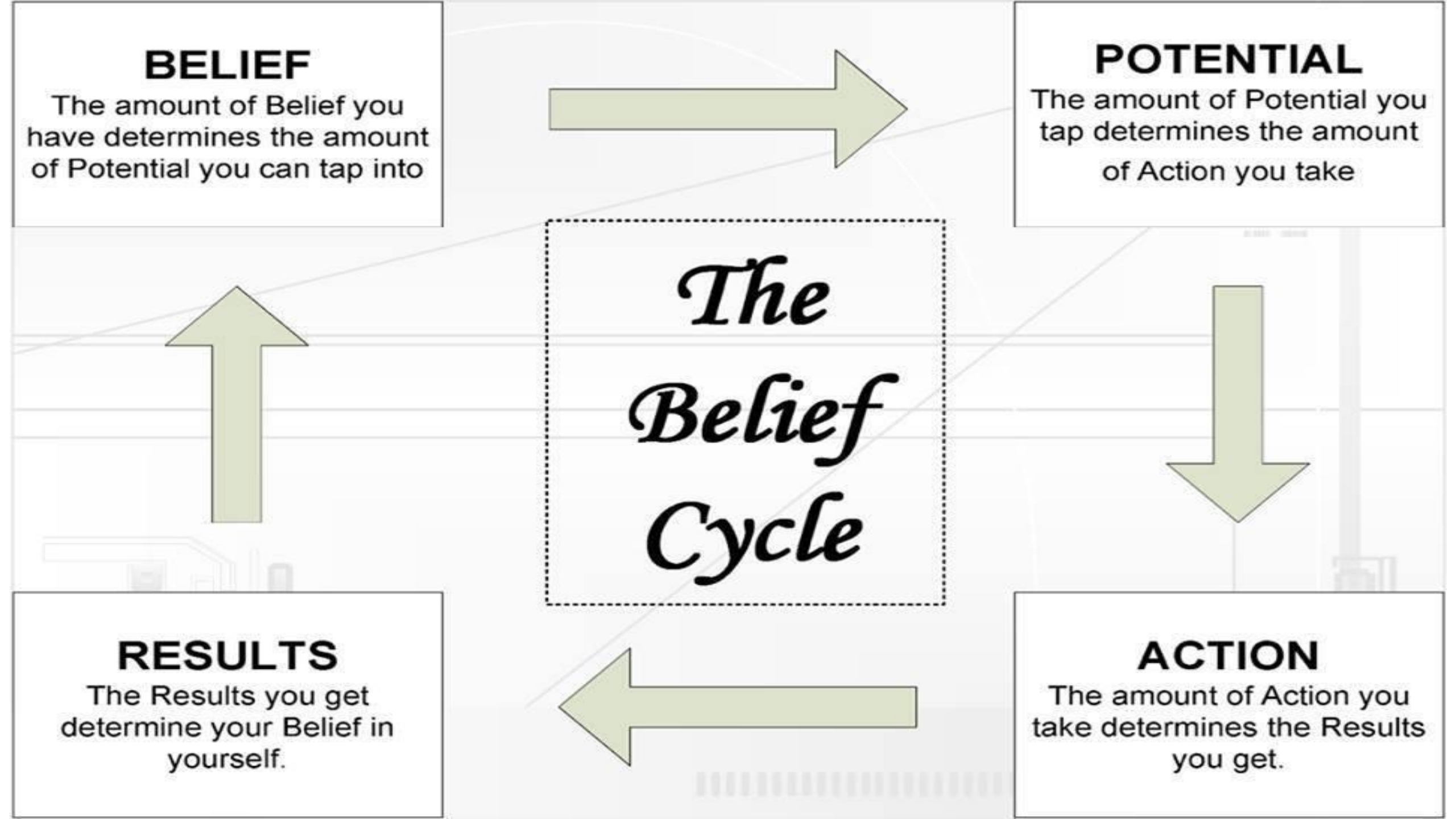
Online Resources

- http://nlvm.usu.edu/
- http://nrich.maths.org/public
- http://www.bbc.co.uk/schools/websites/4_11/site/numeracy.shtml
- https://www.mathplayground.com/math-games.html
- https://www.matholia.com/sg
- http://coolmath4-kids.com/manipulatives/base-ten-blocks

Do you know?

Your **presence and involvement** in your child's learning process will encourage and support your child in his/her learning.

Helping Your Child


BELIEF
The amount of Belief you have determines the amount of Potential you can tap into
POTENTIAL
The amount of Potential you tap determines the amount of Action you take
The Belief Cycle
RESULTS
The Results you get determine your Belief in yourself.
ACTION
The amount of Action you take determines the Results you get.