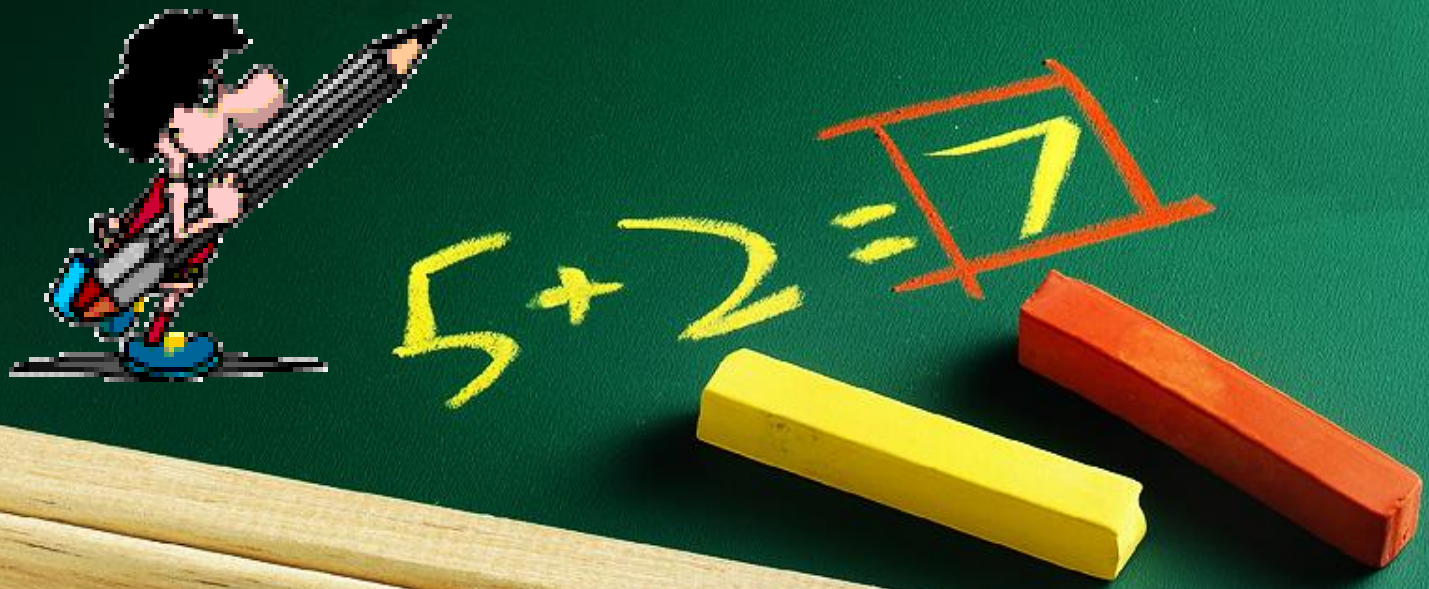
MATHEMATICS

Information for Primary Two Parents



Primary Mathematics (Laying a strong foundation)

The Primary Mathematics syllabus aims to enable all students to:

- Acquire mathematical concepts and skills for everyday use and for continuous learning in Mathematics.
- Develop thinking, reasoning, communication, application and metacognitive skills through a mathematical approach to problem solving; and
- Build confidence and foster interest in Mathematics

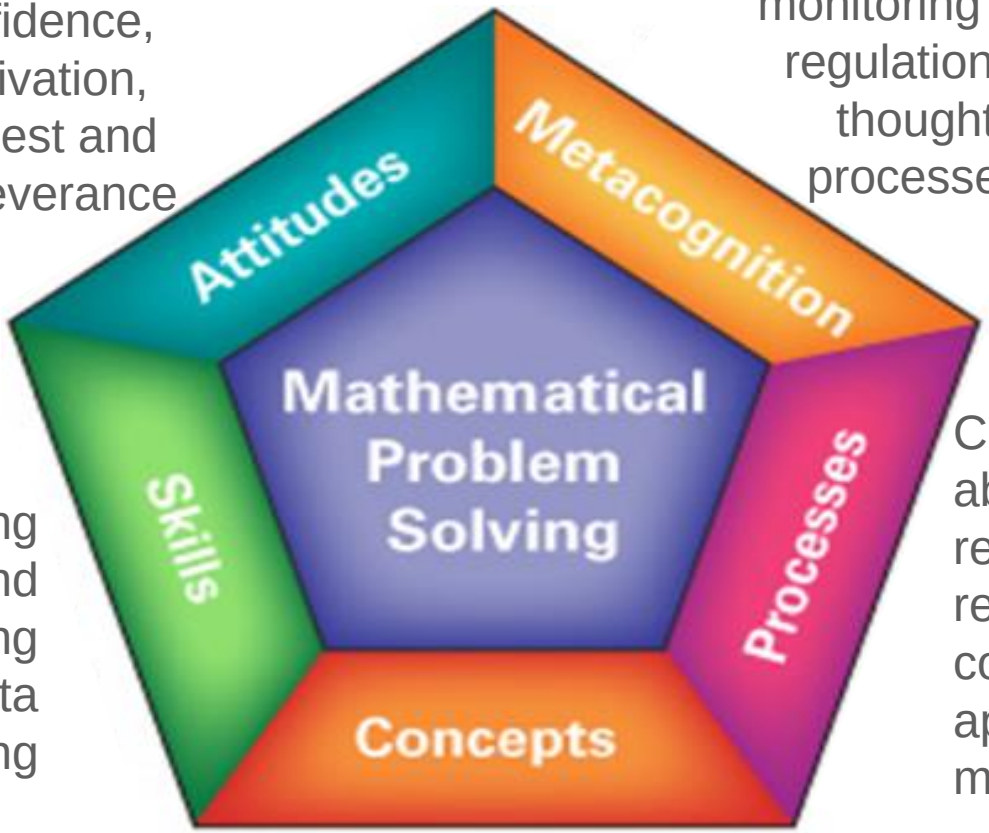
Our Vision

A Creative, Innovative and Effective Mathematics Problem Solver

2021 Mathematics Framework

Belief, appreciation, confidence, motivation, interest and perseverance

Awareness, monitoring and regulation of thought processes



Proficiency in carrying out operations and algorithms, visualising space, handling data and using mathematical tools

Competencies in abstracting and reasoning, representing and communicating, applying and modelling

Understanding of the properties and relationships, operations and algorithms

Syllabus Organisation

The syllabus is organised along 3 content strands with a listing of mathematical processes that cut across the 3 strands.

3 Content Strands + 1 Process Strand		
Number and Algebra	Measurement and Geometry	Statistics
Mathematical Processes		

P2 Syllabus

Number & Algebra (Strand)

- ✓Numbers up to 1000
- ✓Addition & subtraction
- ✓Multiplication & division
- ✓Fraction of a whole
- ✓Addition and subtraction – Fraction
- ✓Money

P2 Syllabus

Measurement & Geometry (Strand)

- ✓Length, Mass & Volume
- ✓Time
- ✓2D shapes
- ✓3D shapes

P2 Syllabus

Statistics (Strand)

- ✓Picture graphs with scales

Mathematical Processes

- ✓Reasoning, communication & connections
- ✓Applications
- ✓Thinking skills & heuristics

Content Sequence – P2

Term 1	Term 2
Numbers to 1000 Additional and Subtraction Length	Multiplication & Division Multiplication Tables of 2, 5 & 10 Mass Time
Term 3	**Term 4**
Additional & Subtraction (2-Step Word Problems) Multiplication Tables of 3 and 4 Money Fractions	Volume Picture Graphs Shapes

Changes in P2 Content

Topics	Movement
Length	**P2 to P1:** Standard unit of length (cm)
Time	**P3 to P2:** • Telling time to the minute • Measuring time in hours and minutes • Converting time **P2 to P1:** Telling time to 5 minutes

Changes in P2 Content

Topics	Movement
Shapes	**P1 to P2:** Making and completing 2D patterns **P2 to P1:** Half circle and quarter circle

Making and completing 2D patterns are done together with making and completing 3D shapes.

Learning Outcomes

1. Understanding numbers up to thousand
2. Solve mathematical problems involving addition and subtraction
3. Multiply and divide numbers within multiplication tables
4. Identify, name, describe and sort shapes and objects
5. Tell time to the minute
6. Compare and order objects by length, mass, or volume
7. Read and interpret picture graphs with scales
8. Understand fractions

Heuristics (P1-P5)

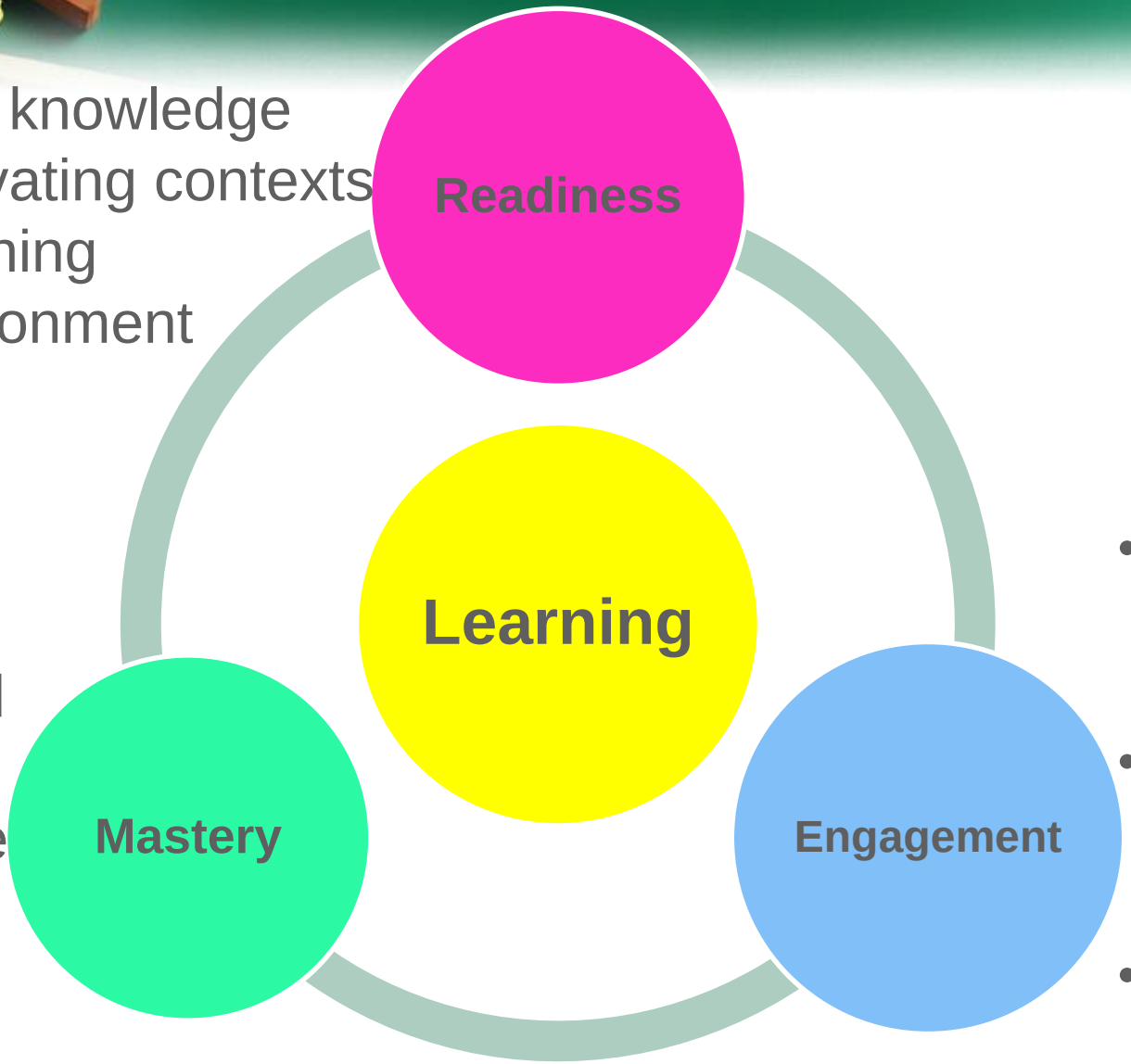
1. Draw a model/diagram
2. Make a systematic list/tabulation
3. Look for patterns
4. Guess and check
5. Act it out
6. Use before-after concept

Heuristics (P1-P5)

7. Work backwards
8. Restate the problem in another way
9. Simplify the problem
10. Make suppositions

Phases of Learning

- Prior knowledge
- Motivating contexts
- Learning environment



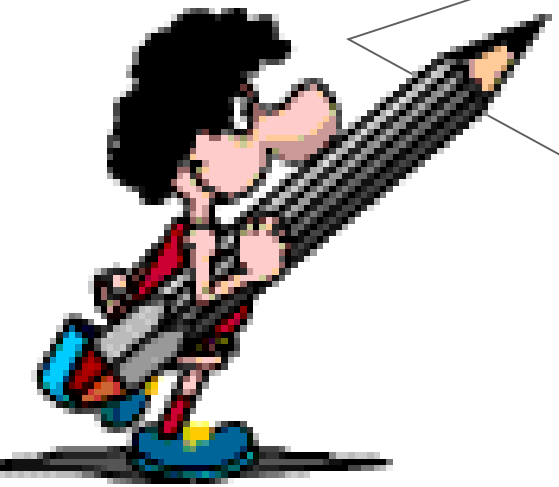
- Activity-based learning
- Teacher-directed inquiry
- Direct instruction

- Motivated Practice
- Reflective Review
- Extended Learning

CPA Approach

Our approach when teaching Math concepts to young children is from ‘Concrete’ to ‘Pictorial’ to ‘Abstract’.

C-P-A Approach



Checkpoints

- Daily assignments
- Experiential Learning activities
- Math Alive
- Class, group and individual tasks
- Diagnostic Package
- Open Ended Tasks

Key Programmes

Math Alive

Integrated Trail

Learning Support for Mathematics

Money Sense

Brain Games

Reasoning Cartoon

STEAM Week

P2 Programmes

Experiential Learning

- Enhance conceptual understanding through use of the Concrete-Pictorial-Abstract approach
- Communicate their reasoning and connections through various mathematical tasks and activities.

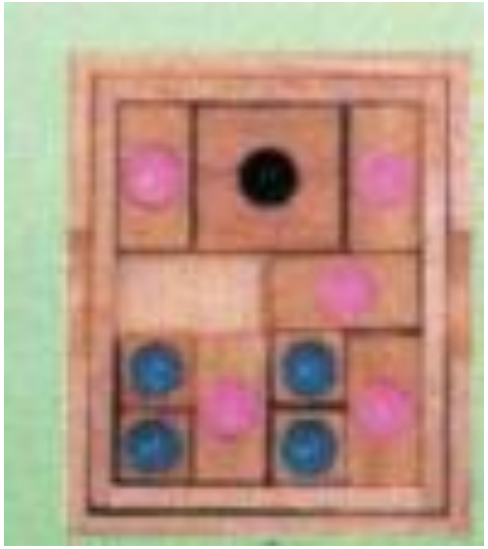
Integrated Trails

- To experience real-life Mathematics around them

P2 Programmes

BrainGames

- To develop the abilities to reason and apply problem solving skills through games



P2 Programmes

Learning Support for Math

- Provide help for students with weak basic numeracy skills
- Students receive more individual attention from teacher
- Students learn through hands-on experiences

P2 Programmes

Money Sense!

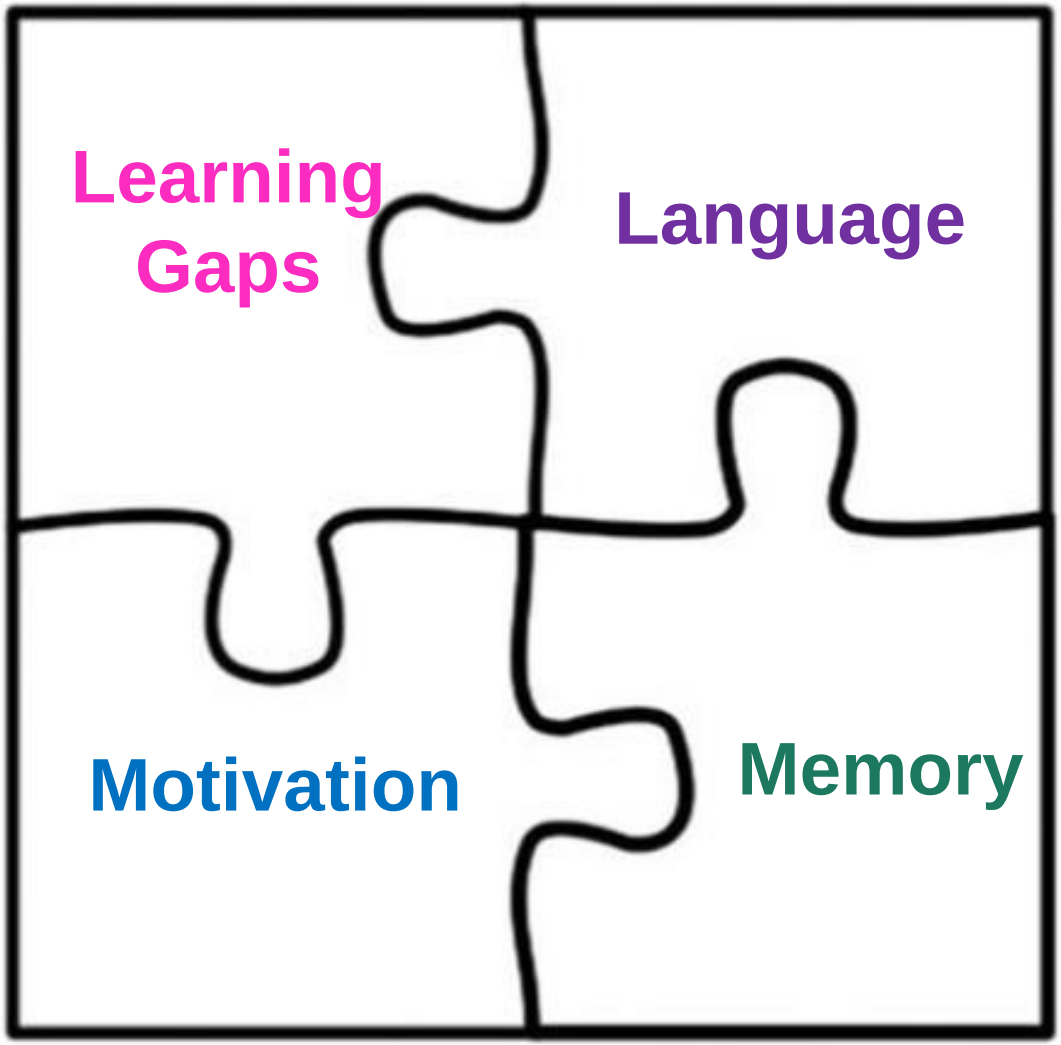
- Able to count amount of money in dollars up to $100
- Understand the value of money
- Build confidence and foster interest in Mathematics
- Reward system
- Make sound decision

P2 Programmes

Reasoning Cartoon

- Develop thinking, reasoning, communication, application and metacognitive skills with the help of our cartoon characters, Chendol, Kachang, Cheng Teng and Cha Cha.

HOW YOU CAN HELP YOUR CHILD IN MATHEMATICS



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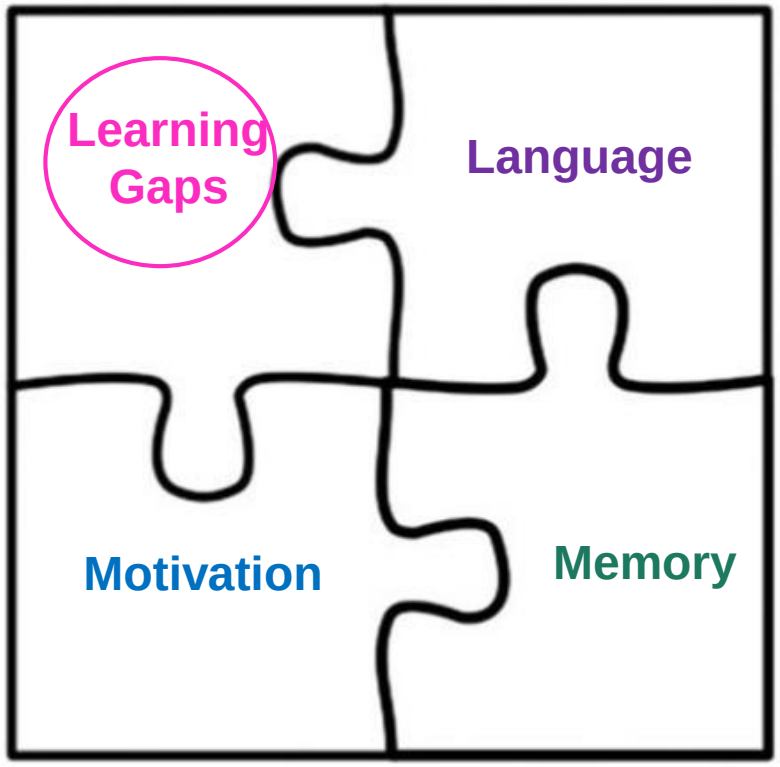

- Start with a smaller number (revisit what they have learnt in Primary 1)
- Start with concrete materials
- Scaffold their learning of new knowledge
- Provide regular practices

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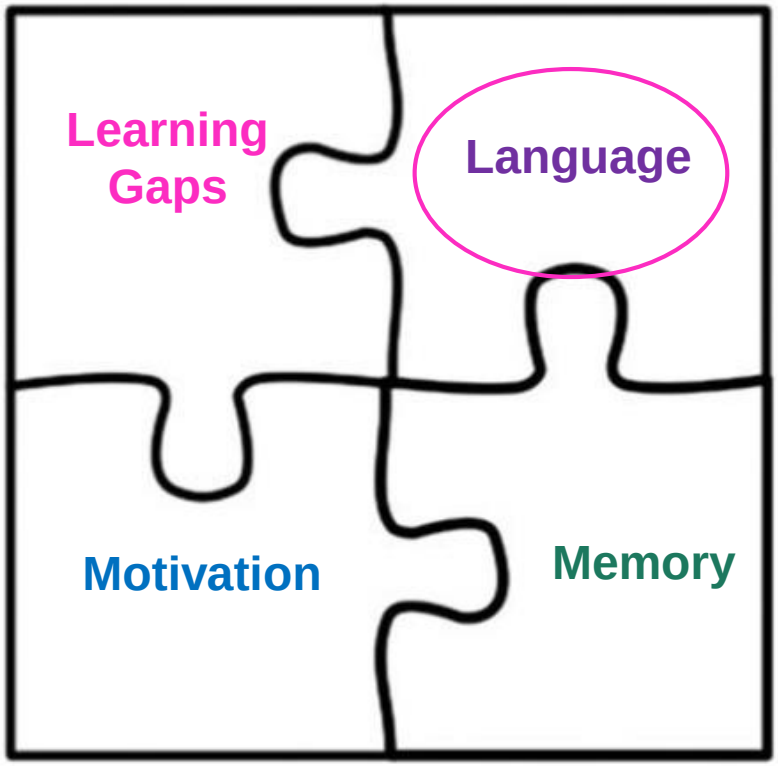

- Use simple language
- Help your child to comprehend word problems
- Use mathematical language (Renaming/ Regrouping)
- Use of visuals

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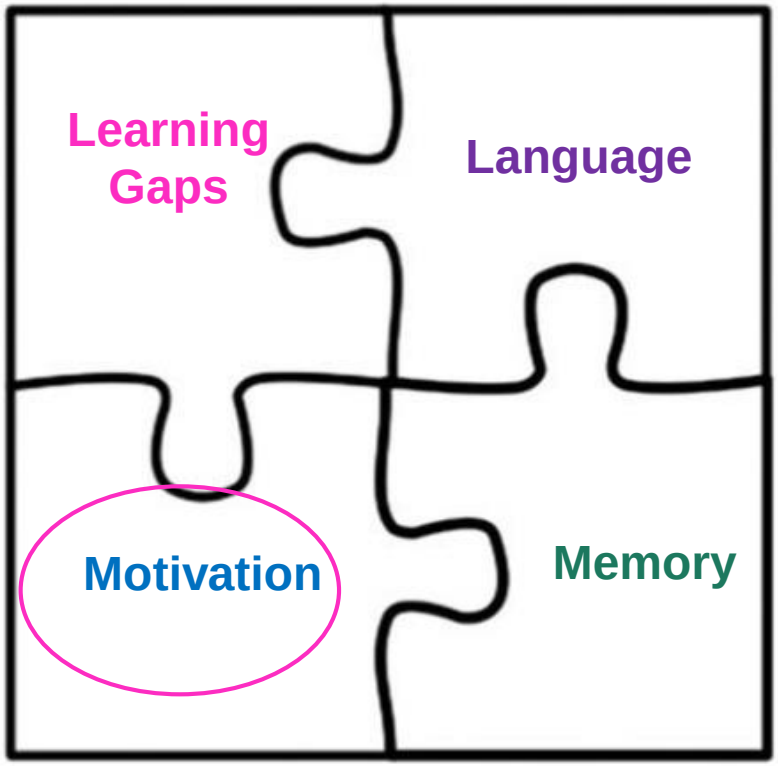

I can learn anything I want to.
When I'm frustrated, I persevere.
I want to challenge myself.
When I fail, I learn.
Tell me I try hard.
If you succeed, I'm inspired.
My effort and attitude determine everything.

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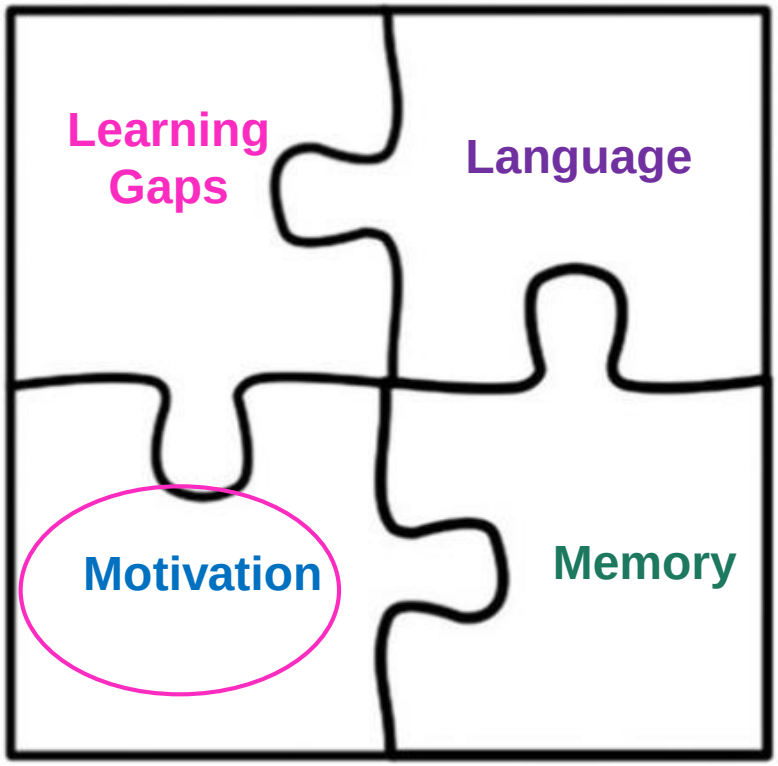

Don't Praise

Intelligence/
Abilities

Do Praise

The Process
&
Effort

Praise for:

- Strategy
- Effort
- Process
- Persistence

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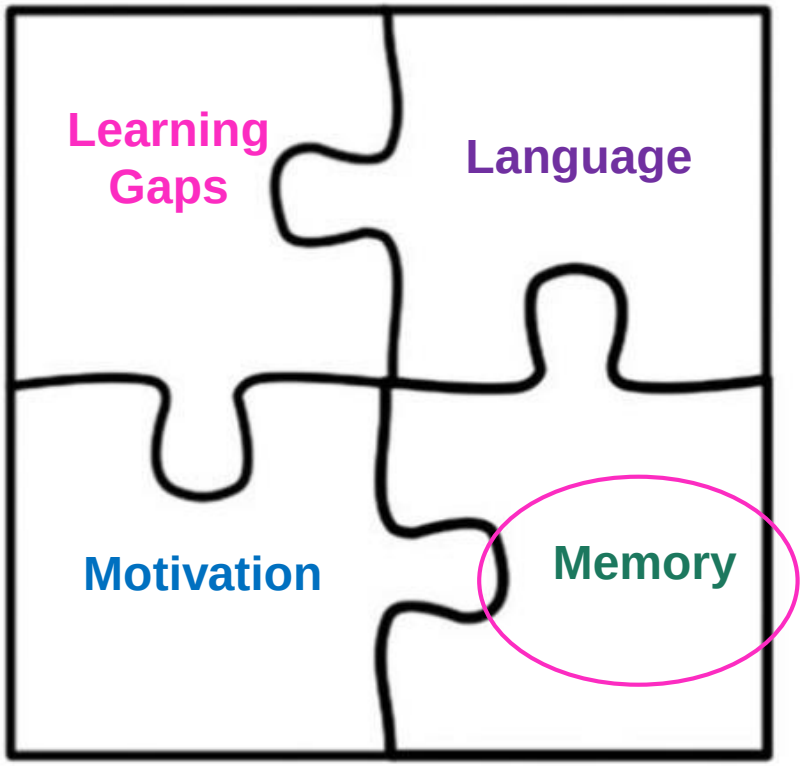

Need to space out reviews to make the brain reconstruct that memory, strengthening like a muscle

HOW YOU CAN HELP YOUR CHILD IN MATHEMATICS

Making mistakes is part of learning!

Neuroscientists have found that mistakes are helpful for brain growth and connectivity and if we are not struggling, we are not learning.

Contact Details

HOD Mathematics

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THANK YOU