# What is Metacognition

## Before

- 1. Have I done something like this before?
- 2. Think about existing strengths + strategies
- 3. Set goals- what do I want to achieve?

# Metacognitive Approach

## During

- 1. Trial and error
- 2. Reflection- is the strategy working for me?
- 2. Can I change anything?
- 3. Am I meeting my goals?

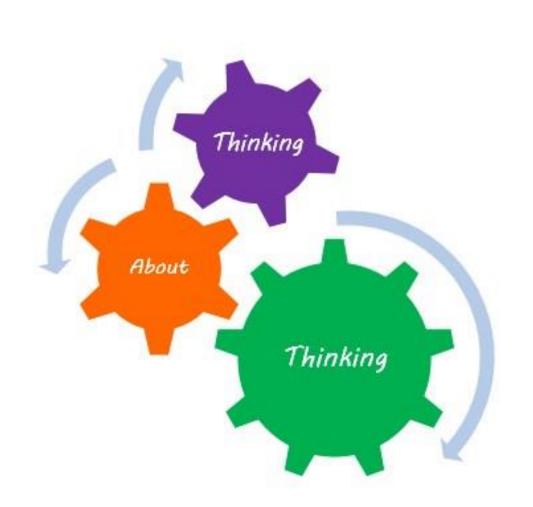
## After

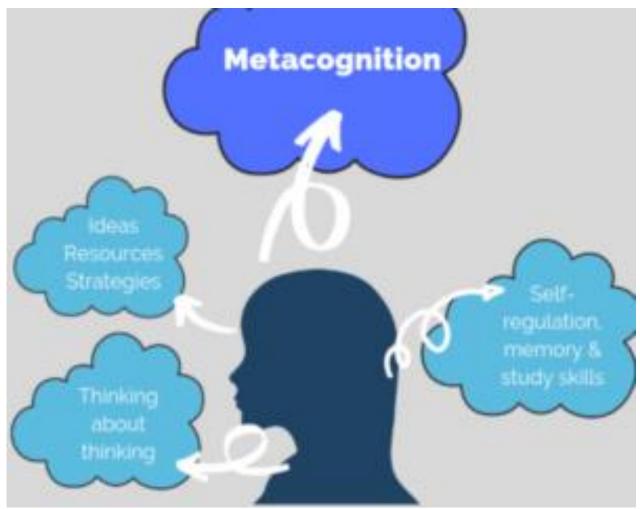
- 1. What worked well?
- 2. Is there anything I can improve or alter
- 3. Embed into workflow
- 4. Apply to different tasks



# Definition of Metacognition

- Metacognition is a big word for something most of us do every day without even noticing.
- It is a way of understanding our feeling, needs, and behaviours and how we learn, manage, and adapt to new experiences, challenges, and emotional setbacks.
- It also helps us understand our their strengths and areas to develop, and our beliefs about ourselves as learners.
- · When we understand how we learn, then we can become better learners.





# Benefits of metacognition on learning and possible gains

- Research shows metacognition (sometimes referred to as self-regulation) increases student motivation because students feel more in control of their own learning.
- Students who learn metacognitive strategies are more aware of their own thinking, and more likely to be active learners who learn more deeply.
- They also use learning strategies that help them to retain/remember what they have learned. For example, some students learn from pictures and diagrams while other learn by making notes or by practising their technique.

# Some suggestions of how to develop metacognitive strategies.

- Sharing the strategies that work for us. For example, there are many creative ways to learn your spellings.
- Know which areas/subjects you need to develop and track your progress on them. For example, track your progress in your weekly tests and celebrate small wins.
- Know which areas/subjects you don't enjoy and consciously try to develop more positive feelings towards them by having a growth mind-set. For example, if you put effort into Art lessons even if you don't enjoy them in the beginning, you will surely make improvement over the course of a year.



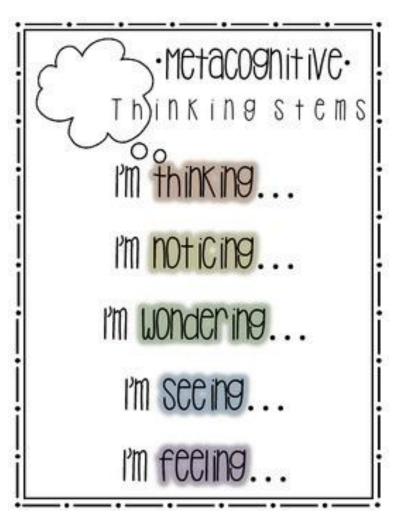
#### Review of Mock Assessments and Action Plan for the Final Assessments Name:

Arithmetic	Reasoning Paper 1	Reasoning Paper 2
Score: /40	Score: /35	Score: /35
Things I need to improve:	Things I need to improve:	Things I need to improve:
1	1	1
2	2	2
3	3	3

Reading			
Score:	/50		
Things I	need to improve:		
1			
2			
3			

Grammar	Spelling
Score: /50	Score: /20
Things I need to improve:	Things I need to improve:
1	1
2	2
3	3





### METACOGNITION about our Thinking thinking! Stems •I'm thinking .... •I'm noticing .... •I'm wondering .... •I'm picturing .... •I'm feeling .... •It reminds me of .... •I'm figuring out .... •I'm seeing .... Jennifer Bradshaw

**HOW METACOGNITION BOOSTS LEARNING** by Youki Terada

#### METACOGNITIVE QUESTIONS

# **During Class**

What are the main ideas of today's lesson?

What am I confused about or was difficult for me to understand?

What questions do I need to ask the teacher or what resources can I use to help me?

Have I recorded the main points and their details and my questions?

What strategies or resources can I use if I get stuck on a question or problem?

#### Before a Test

What am I expected to know and be able to do on this test?

What areas am I confused about or where do I need to clarify my understanding?

How much time should I schedule for preparing for this test?

Where will I have a quiet place to study with the needed materials?

What strategies will best prepare me for the test? (practice questions, study buddy, summarizing information, etc.)

What grade do I think I would get right now?

#### After a Test

What did I not get correct and why was my answer incorrect?

Was there anything on the test that surprised me?

How prepared was I for this test?

> What should I have done differently?

Did I receive useful specific feedback from my teacher?

"Metacognition helps students recognize the gap between being familiar with a topic and understanding it deeply."

#### STRATEGY

#### **Determining Importance**

What matters most?



#### THINKING STEMS

What's important here ... What matters to me ... I want to remember ... It's interesting that ... One thing that we should notice....



#### Inferring

Schema \* Evidence \*Inference

Generate questions before,

during, and after reading...

My guess is... Maybe... Perhaps... I predict... I infer...

#### Metacognition

Thinking about our thinking...



#### I'm thinking ... I'm noticing ... I'm wondering... I'm seeing... I'm feeling ...

I wonder ... What if ... Why ... I don't understand... How could... It confused me...



#### Schema

Making connections using prior knowledge...



#### That reminds me of ... I'm remembering ... I have a connection to ... I can relate to ... I have schema for...



#### Synthesizing

Questioning

Changing your thinking along the way...

Now I understand why ... My new thinking is ... I'm changing my mind about... I'm beginning to think... I used to think but now I think.

#### Visualizing

Create mental images...

Use your senses...

Created by B. W. Ovalians 3016



I'm picturing... I can imagine... I can feel, see, hear, smell, taste... My mental images include...

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