Video notes

INTRODUCTORY VIDEO – ACCOMPANYING BOOKLET

Activity prompts

How are good are you are at making decisions? On a scale of 0-10, with 0 being terrible and 10 being fantastic, how would you rate your decision-making skills?	
How easy was it to rate yourself? What did you take into consideration when making this decision?	

Thinking about what 'decision making' actually is, and what it involves can be thought of as metacognition in action. When we make a judgement about our ability to think and achieve a particular task, we are being metacognitive.

You are presented with the option 'drink me'. Do you decide to drink the contents?	
Reflecting on your decision: How long did you think about it? What influenced the amount of time you spent thinking about it? How did you know that you were 'ready'?	
What did you think about when making the decision? What knowledge and experiences did you draw on? What factors did you consider? How do you know if you came to the right decision?	

Whatever decision you came to, how do you know it was the right decision? How do you know that the process you used to reach the decision was superior, inferior or the same as those used by others,? It is unlikely that you could answer that question without first knowing the strategies that other people used. How might allocating lesson time to pupils talking about thinking and sharing the thinking processes they have used actually improve the quality of thinking? Lots of pupils think everyone thinks in the same way. How might reflecting on thinking help pupils to make judgements about the quality of their own thinking and gain new ideas about how to improve?

Do you think you can improve your decision making skills? What would you do if you were tasked with improving your decision making skills? Do you think everyone has an equal ability in making decisions? Do all children have good decision making skills? Think about the pupils in your class. Which ones would you rate as being good at making decisions and which ones would you rate as being poor at making decisions? Do you think you could help them to improve?

Metacognition includes the attitudes and beliefs that individuals have about their ability to improve. You can see a clear link here to growth mindsets. If you don't think that you can improve, it is unlikely that you will try to improve, its unlikely that you will engage in reflection activities or consider very carefully the thinking processes that are used. If you think that decision making is a talent that you are born with, then there is no point stopping to analyse what you are doing right or what you are doing wrong or trying to make improvements if it is already pre-determined. But, if it is something that we can change and improve, then it is worth spending time reflecting on, unpicking, analysing, and working out how to be better at it.
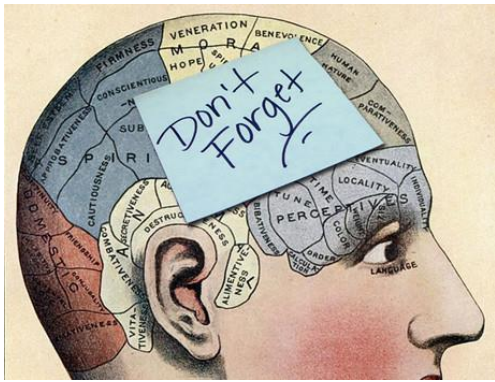
How would you rate your memory on a scale of 0-10?
By how much do you think you can improve your memory?
What is your argument for your viewpoint?

Testing out your memory: Activities

1. Learn a six digit number and test your ability to recall it. What strategies did you use?
2. 8 shuffled playing cards – learn them and then write down or say the cards aloud. What helped you to remember the cards? What do you think your limit would be?

What strategies did you use? If working with other people, what strategies did they use? Did you use more than one strategy?

- Ask someone to give you longer and longer number sequences orally, e.g. one three five – say one three five back to the person; two three nine six – say back two three nine six. What is the longest sequence that you can remember (investigates number span).
- Think of a time when you first rode a push bike. Close your eyes and try to remember. (Visualisation and quite often a link to emotions, e.g. pride / pain / someone being angry).

Pupils need STRATEGIES to call on, for memorising, for making decisions, for attending to a mathematics problem, for recalling information. They often think that everyone is using the same strategy. They often don't consider the VARIABLES in a task. If they get 4/10, 4/10, 4/10 for a spelling test, they may think 'I'm terrible at spelling. I'm useless at spelling tests.' rather than thinking: 'Am I using a good strategy?' 'How could I approach this task differently?'

- Do I look for patterns, ways of unpicking the spelling list?
- Do I say the words aloud (look, say, look).
- What strategies do I know about? What strategies might other people be using? Can I get any advice on strategies?
- Do I test myself by writing out the spellings and checking against the list? How do I know when I have learned the spellings?
- Do I spend more time on the spellings that I am less confident with?
- Do I analyse errors when testing myself.
- How often do I revise the spellings?
- How long do I spend revising spellings in each revision session?
- Where am I revising the spellings?
- What resources am I using to help me.

How might spending more time in class talking about strategies, analysing learning, sharing strategies, talking about variables, sharing approaches – help pupils to become more effective learners?

Sometimes an approach and a strategy works for quite a long time because the task varies little. However, a pupil who regularly achieves 10/10 on spellings can become very upset when the task changes and the strategy and approach they are using no longer works. Perhaps the length of the words in the spelling list has changed, perhaps the pattern within the spellings has become less uniform or more complex, perhaps the list is no 20 spellings rather than 10 spellings. A pupil who has performed well for a long period of time may find it difficult to switch to new strategies and new approaches. They may find it hard emotionally to reflect on and analyse their learning.

A good book for considering how your strategy might need to change is Moonwalking with Einstein by Joshua Foer. Joshua writes about his journey to becoming a memory champion.

Which pupils in your class might need a new approach / a new strategy to an aspect of their learning?

How might you increase your focus on STRATEGIES and VARIABLES

I think about the task I have been set. I unpick it, decipher it, analyse it, create a clear picture in my mind about what I have to do. I understand what I am trying to achieve and what a good solution will look like.

I know a range of learning strategies and how to combine them. I can pick the ones that will match this task.

I can plan. I think about what equipment I will need, what resources will be helpful, if it would be better to work in a group / pair / on my own, how long each part will take me and I decide where to start.

I see myself as in control of my learning. I am aware of how the brain works, I know learners can improve their effectiveness and efficiency. I have a growth mindset.

I monitor my work as I go along. I have strategies for if I get stuck. I keep thinking about the task and success criteria as I work. I modify my learning strategies and approach as necessary. I problem solve.
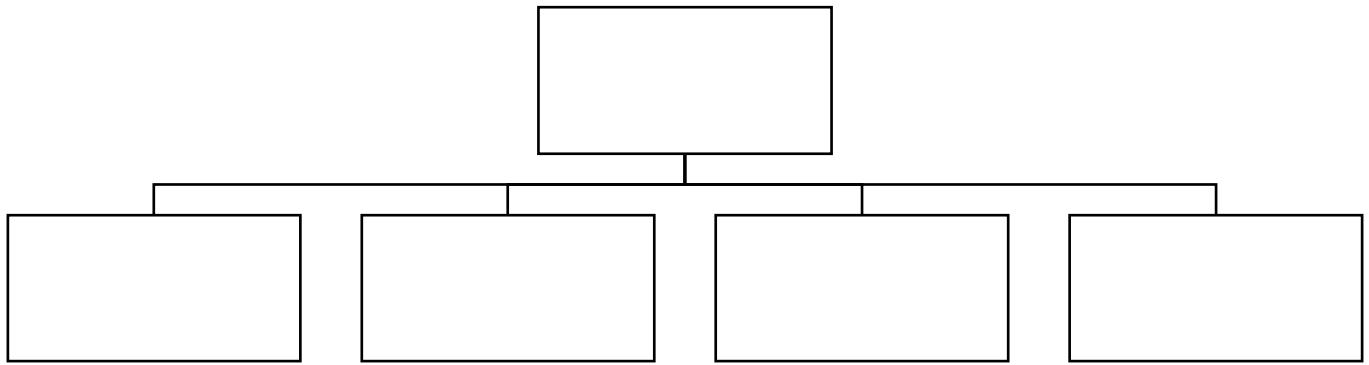
I think about the learning strategies I used, my time management, my effort levels, my concentration etc. What worked and what didn't? If I approached the task again, what would I do differently? I evaluate 'me as a learner'.

At the end, I check my work. I stand back and consider the work as a whole. I look at the success criteria. I identify strengths and improvements. I evaluate the end product. I think about what I have learnt!

What does a metacognitive pupil look like in the classroom? Use the above diagram to help you consider which of the pupils in your class are employing metacognitive actions and metacognitive thinking at each stage of their learning. Which aspects are strongest / weakest in the cycle? How could you use this cycle to help you guide, support, challenge pupils to become more metacognitive?

Complete the table:

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To help us develop metacognition in the school, we can use this frameworks to help us. We can think about children's awareness, knowledge, skill, reflection and effectiveness in each of the four strands.

Description	Framework name
Attitudes and beliefs to learning. Recognition of strengths and weaknesses in learning, thinking and processing information. They realise there are degrees to understanding. They can think about their own preferences to learning, their beliefs about how people learn. Degree to which they are agents of their own thinking. How open a child is to changing their approach.	
	Task variables
Bringing points 1 and 2 together. They know their own thought processes, their own strengths and weaknesses, they know about learning in relation to a particular task, they learn from their experiences, they break down the task itself and then they use those to think about the strategy and approach they are going to use.	
	Strategy variables

We can consider each of the four strands in 5 ways. For example, how can we increase pupils awareness of strategy variables? How can we increase pupils skills at deciphering tasks? How can we improve pupils ability to reflect on their strategy?

	PERSON VARIABLES	TASK VARIABLES	DECLARATIVE KNOWLEDGE	STRATEGY VARIABLES
AWARENESS				
KNOWLEDGE				
ASSOCIATED SKILLS				
ABILITY TO REFLECT ON THIS				
EFFECTIVE ACTIONS				

Within that framework we can think about metacognitive knowledge, metacognitive monitoring and metacognitive control. For example, what do they know about how learning operates? What do they know about how to improve learning? What do they know about how other people learn? What do they know about elements such as memory? Knowing more about metacognition, knowing more about learning will help children to become more metacognitive.

We also need to help children engage in metacognitive monitoring. Judging if they have understood something, thinking about the internal questions that they ask themselves as the task progresses, constantly assessing progress towards the goal. And we need to make sure that children see themselves in control. Control of their own learning, control of how effective they are as a learner, control of the approach that they are taking, perhaps changing the tactic that they are using to solve a problem, or deciding on a resource they need. They need to be proactive in their learning.

In the classroom we can facilitate metacognition. We can model our thought processes as we complete tasks. We can create conditions in which metacognition can thrive. We can weave metacognition into our everyday practice, our everyday teaching and learning. We can create an ethos in our classroom that is metacognitive. We can help children to recognise when they are using metacognition. We can explicitly teach elements of metacognition. We can improve pupils' awareness of what it is to be metacognitive. We can teach children how to be more metacognitive.

Everyone, adults and children, can improve their metacognitive skills. This is one of the fantastic things about metacognition. Everyone can make improvements to the way that they are metacognitive.

We can judge the success of our implementation in many ways. We could break it down into some of the areas that we have just talked about. We could think about to what extent we've created a highly metacognitive classroom ethos and the philosophy in which teachers integrate metacognition into all their practice. We can think about if teachers are using very practical actions to develop metacognition such as think alouds, reflection techniques and teaching of strategies. And we can assess the extent to which pupils are becoming more metacognitive. We can think about how we are promoting metacognition and how that is influencing children's attitude and beliefs about learning. We can evaluate the changes they are making to their own learning and their levels of reflection. We can also look for the knock-on impact, for example higher grades, improved outcomes, increased levels of confidence, improved independence, higher levels of engagement, increased collaboration, greater levels of resilience, increased success at problem solving, etc.,. It's an upward spiral, an ever-increasing circle of effectiveness.

I hope you have found this introductory video both informative and engaging. A comprehensive course follows this introductory video that will help you to implement metacognition throughout the school.