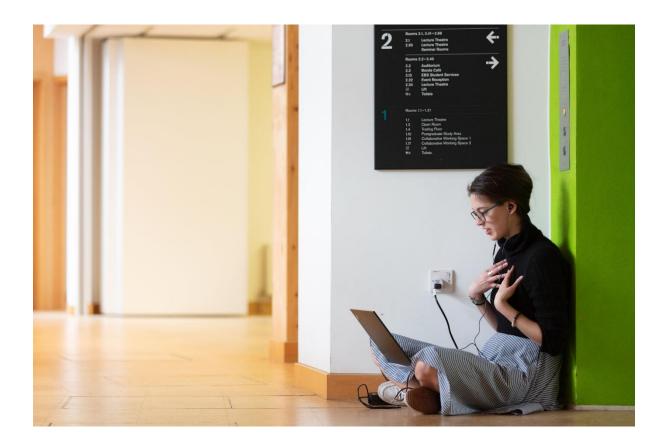# Metacognition

Pre-16

To be used alongside the Metacognition 2020 – Pre 16 video. Please do not skip ahead as this will spoil some of the activities and games.

Name _____

The Memory Test – Nearpod (Slides 2-4)

Nearpod Activity – if you have access to the internet please complete the activity on www.nearpod.com using the code BTJZS.

You have two minutes to try and match the items together.

When your two minutes are up:

- Think about how you were able to match the items up.
- Did your methods work?
- Make a note below of the method/s you used.

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The Memory Game (Slides 5-7)

When your two minutes are up try and write down as many items as you can remember:

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Check to see how many you managed to remember and tick them off!

What strategy did you use to remember the items? Did it work?

Based on how many items you remembered, do you think your strategy was effective or not?

Write notes below on your method and other strategies you can think of:

_____

_____

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Strategies (Slide 8)

- Looking

- Looking away and testing yourself

- Stories (The goldfish brushed its hair whilst in the tent- the weirder the story, the better)

- Repetition

Did you use any of these strategies?

Write down anymore strategies you can think of and how effective they are:

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What is Metacognition? (Slides 9)

- Thinking about the ways you think
- Monitoring what you're doing to see if it works
- Changing your strategy if you need to

Metacognition Phases (Slide 10)

Example: Revising for an exam!

Write it down below:

Planning:

_____

_____

_____

Monitoring:_____

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_____

Evaluation:_____

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Metacognition is a life hack! (Slide 11)

- Research shows that metacognition is really effective at boosting your grades
- Metacognition is a transferrable skill
- This skill helps you to develop your independent learning skills.
- It's not just about *what* you learn but how you learn it that will really make a difference.

Murder! (Slide 12-13)

You are now going to help with a murder investigation!

The story…

Harry was an international celebrity and singer, but he made a lot of enemies. When he realised how much trouble he was in, he disguised himself and headed for sunny Spain, hoping to make a new life… One week later he was found dead on the floor of his hotel room.

Who did it?

The police have drawn up a list of suspects. What they don't know is which one of them did it. Harry had a hunch about which one person in particular might be on his trail, so he made clues that would help the police find the killer in the event that he was murdered. Now it's up to you to solve the case.

The ex-friend?   The brother?   The grandma?

The Memory Game (Slide 14-15)

Think about the strategy you're going to use – which strategy will help you to remember as many items as possible?

You can use the same strategies you have used beforehand or another one from the notes you have made, or a completely new one! Some will work and some won't.

Your strategy:

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When your two minutes are up, write down all the items you can remember:

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The Memory Game (Slide 16)

- How many items did you remember correctly?
- If you used a new strategy did it work?
- Would you use your new strategy again? Or change back to something you did before? Or something completely different?!

This is metacognition: thinking about what works and adjusting accordingly and this will help you learn anything you want to learn, whether that's college work or something else!

The Notepad (Slide 18)

Harry knew that if he just wrote down who the killer was, they would see it and destroy it. So he did something clever. He wrote the name of the killer in code in his red notebook and if we can crack this code, then we'll know who it was who did it.

Crack the Code (Slide 19-20)

Look at the alphabet and you will see, how the letters sit next to who they would rather be!

LX AQNSGDQ JHKKDC LD

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Use the space below to crack the code:

_____

_____

_____

_____

_____

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_____

Crack the Code (Slide 19-20)

- Well done if you managed to crack the code successfully!

- If you didn't quite manage to get it, think about what you tried? What have you realised?

- Talk about it out loud- this is an important part of metacognition – to describe your thought processes as you look at the alphabet and wonder what the rule is.

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Metacognition Phases (Slide 21)

Fill in the gaps! How did you use metacognition phases to crack the code?

Planning:

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Monitoring:

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Evaluation:

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Strategies (Slide 22)

Have a read through the strategies below. The most effective/useful ones are listed at the top:

Table 1: Effectiveness of ten learning techniques, from Dunlosky et al (2013) [39]		
High utility	**Practice testing**	Self-testing or taking practice tests on material to be learned.
	Distributed ('spaced') practice	Implementing a schedule of practice that spreads out activities over time.
	Elaborative interrogation	Generating an explanation for why an explicitly stated fact or concept is true.
Moderate utility	**Self-explanation**	Explaining how new information is related to known information, or explaining steps taken during problem solving.
	Interleaved practice	Implementing a schedule of practice that mixes different kinds of problems, or a schedule of study that mixes different kinds of material, within a single study session.
	Summarization	Writing summaries (of various lengths) of to-be-learned texts.
	Highlighting	Marking potentially important portions of to-be-learned materials while reading.
Low utility	**Keyword mnemonic**	Using keywords and mental imagery to associate verbal materials.
	Imagery use for text learning	Attempting to form mental images of text materials while reading or listening.
	Rereading	Restudying text material again after an initial reading.

Try explaining what metacognition to a family member or out loud. This is a metacognitive strategy.

In Conclusion (Slide 23)

- Metacognition is about thinking about how you're learning and changing your strategy if you need to in order to be a really effective learner.

- This will help you to achieve better in exams and will also be helpful in the long-term.

- This skill will develop your independent learning.

- Metacognition isn't about whether you get the right answer, it's about working out how you can learn best.

If you have any questions please send them to www.sli.do and enter #Metacognition and one of the team will get back to you as soon as they can. Alternatively, you can email outreach@essex.ac.uk

My questions/notes

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My questions/notes