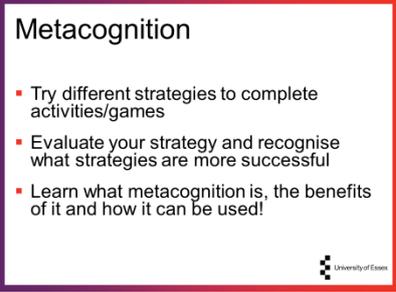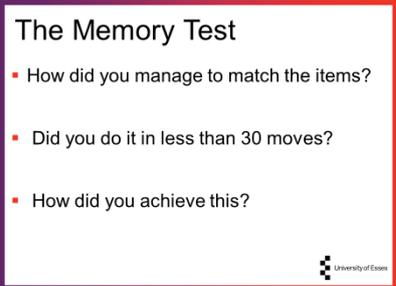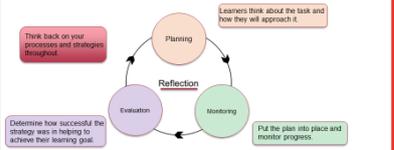# Metacognition Workshop: Delivery Notes for Teacher

Learning about Metacognition will help students' to develop their independent learning skills. They will think about the way they learn and assess their strategies. With interactive activities and a murder case that needs help solving, this resource will aid your students and help keep them motivated.

This workshop is just under an hour long and to be used with Metacognition – Post 16 PowerPoint Presentation.
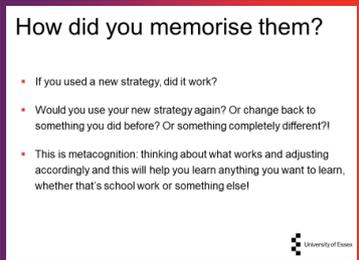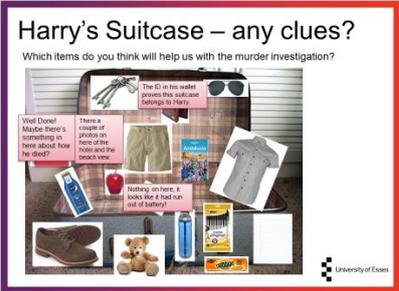
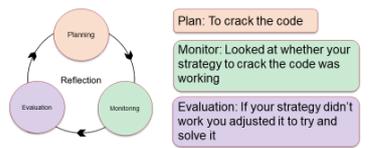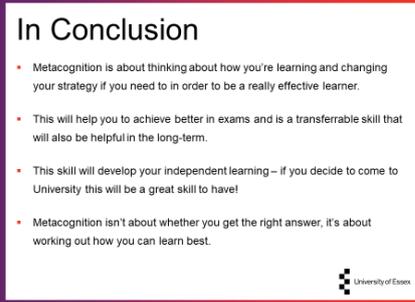|		
	Welcome and Introduction.	
	Learning Objectives: ▪ Try different strategies to complete activities/games ▪ Evaluate your strategy and recognise what strategies are more successful ▪ Learn what metacognition is, the benefits of it and how it can be used!	30secs
	Nearpod.com Please go to nearpod.com. You will complete a memory test activity which requires you to match up the items. Please try it an as few moves as possible. The code is on the screen (click for it to appear).	2-3min
	When you've had a go, think about your strategy: How did you managed to match the items? Did you do it a less than 30 moves? How did you achieve this?	30secs

The Memory Game! On the next slide you will see lots of items and you need to try and remember as many as you can, in your head! You will have two minutes… go! University of Essex	You are now going to play another memory game. There are lots of items on the next slide which you will have two minutes to try and remember as many as you can. Using your head only, no writing down. Choose an appropriate time for the students to memorise the items. We suggest two minutes.	1min
		2mins
How did you memorise them? ▪ Based on how many you got correct, do you think your strategy was effective or not? ▪ Write down your strategy and other methods for remembering that you can think of. University of Essex	Quickly write down the items you can remember. And then go back to the previous slide so that the students can tick them off. Questions to ask students: How many did you get? Have a think about how you managed to remember the items. What methods did you use? Based on how many you got, do you think your strategy for remembering the items was good? Make a note of your strategy and others you can think of.	2-3mins
Strategies ▪ Looking ▪ Looking away and testing yourself ▪ Adding more objects each time ▪ Mnemonics – (e.g. based on the first letter of the objects) ▪ Stories (The goldfish brushed its hair whilst in the tent- the weirder the story, the better) ▪ Repetition Did you use any of these strategies? Can you think of anymore? How effective are they? University of Essex	So some of the strategies you might have used include looking, looking away and testing yourself, making up stories and repetition. If you can think of anymore please write them down. Have a think about how effective each of these strategies are. Which do you think is the most effective? Rate them 1-10, 10 being the most effective.	2-3mins

What is Metacognition? "metacognition **knowledge** and **understanding** of **your** own **thinking**: Metacognition is considered one of humans' most sophisticated cognitive capacities" From the Online Cambridge Dictionary (https://dictionary.cambridge.org/dictionary/english/metacognition March 2020) - Thinking about the ways you think - Monitoring what you're doing to see if it works - Adjusting your strategy if you need to	So according to the online Cambridge dictionary metacognition is knowledge and understanding of your own thinking. So like in the memory game I asked you to think about *how* you remembered the items and whether it was a good strategy. Perhaps if it was a good strategy you will use it again…	2mins
Metacognition Phases Think back on your processes and strategies throughout. / Planning / Learners think about the task and how they will approach it. / Reflection / Evaluation / Monitoring / Determine how successful the strategy was in helping to achieve their learning goal / Put the plan into place and monitor progress Example: Revising for an exam!	Metacognition Phases. Planning: learners think about the task and how they will approach it. Monitoring: put the plan into place and monitor progress Evaluation: determine how successful the strategy was in helping to achieve the learning goal Reflection: think back on your processes and strategies throughout. You are revising for an exam and your goal is to do well (planning). You decide to use revision cards as your method for revising. When you complete a practice test you don't do very well and realise that you might need to do more than using revision cards (monitoring/evaluation). You adjust your revision technique and decide to try some online games to aid your revision. You notice that this is more effective in helping to retain information and you will use it in the future to prepare for exams (evaluation/reflection). Please have a go at writing your own example in your workbooks.	5mins
Metacognition is a life hack! - 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. - Its not just about *what* you learn but how you learn it, that will really make a difference.	Research shows that metacognition is really effective at boosting your grades. This is due to the monitoring of what you're doing as you assess and adapt your learning strategy if you need to. You are able to decipher what you causes your successes and failures. For example, a learner might realise that a particular strategy is not achieving the results they want, so they decide to try a different strategy.	2mins

	Metacognition is a transferrable skill that will improve students' academic achievement across all areas. This skill helps you to learn how to monitor your own progress and therefore develops your independent learning skills. This is hugely beneficial for when you have to complete homework and projects! It's not just about *what* you learn, but how you learn it, that will really make a difference. They're basically learning a life hack.	
Murder! 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.	You are now going to help us with a murder investigation! The story goes: 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. But one week later he was found dead on the floor of his hotel room.	30secs
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	We need to find out who did it! The ex-friend, the brother or the grandma? The police have drawn up a list of suspects. What they don't know is which one of them did it. But 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 us to solve the case.	30secs
The Memory Game ▪ Think about the strategy you're going to use to memorise the items– which strategy will help you to remember as many as possible? ▪ You can use the same strategy you have used beforehand or another one from the notes you have made, or a completely new one!	We are going to look in Harry's suitcase as there might be something in there that will give us a clue to how Harry died. The police are standing over us so we only have a few minutes to look at it. Just like the memory game earlier, you will have a few minutes to view the items. What strategy are you going to use?	1mins

	You can use the same strategy you have used before, one from your notes or a new one! Some will work and some won't but that's part of metacognition assessing and adapting your strategy. We suggest two minutes to view the suitcase items.	
 The Memory Game	The suitcase	2mins
 How did you memorise them? • 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 school work or something else!	I hope you were able to score better this time! Quickly write down all the items you can remember and then we'll go back to the previous slide to tick them off. Questions to ask and think about: If you tried a new strategy did it work? Would you use the strategy again? Or change back to something you tried on the first memory game? Or, would you try something completely different? Thinking about what works and adjusting is metacognition. This will help you learn anything you want to learn, whether that's school work or something else!	2-3mins
 Harry's Suitcase – any clues? Which items do you think will help us with the murder investigation?	Looking back at Harry's suitcase, which items do you think might give us a clue about how he died? Click on the items and **click on the red notepad last.** Well done If you thought the notepad might help us, you were right.	2mins

The Notepad 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. University of Essex	Harry wrote something in the notepad… 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.	30secs
Crack the Code 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 If you need a clue, please click here! University of Essex	This is the code that we need to try and crack! When you're working it out please have a think about the steps and strategies you are using. What's helpful and what's not? There is a riddle hear to help you: read riddle. But if you're still really struggling take a look at the clue! Code is A=B, the letter is actually the letter next to it so the first part of the code is L=M X=Y so LX = MY.	5mins
The code is… Click here to reveal the code… ▪ 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 University of Essex	Congratulations if you managed to work out the code! If you didn't quite manage to get it, think about what you tried? What have you realised? (You can always give the students more time to work out if you need to then reveal the answer). So now we all know who killed Harry! Well done.	4mins
Metacognition Planning Reflection Evaluation Monitoring Plan: To crack the code Monitor: Looked at whether your strategy to crack the code was working Evaluation: If your strategy didn't work you adjusted it to try and solve it The act of thinking about what you did and being really aware of it makes you more likely to succeed next time! You can apply these ideas to things outside of cracking this code. University of Essex	I'm going to use the metacognitive phases to share how you thought metacognitvely when you were cracking the code. Plan: the plan was to crack the code, if you've cracked codes before you might have had a strategy in place already Monitor: as you were trying to crack the code I asked you to think about your thought processes, so you were aware of what you were doing Evaluation: you then had to look at whether your strategy was working and this might have come naturally when you realised what you were doing wasn't working and had to adjust.	3mins

	The act of thinking about what you did and being really aware of it makes you more likely to succeed next time! you can apply these ideas to things outside of cracking the code.	
	On the screen you will now see a full list of strategies, with the most useful at the top. Do you recognise any of the strategies? Do you use any of them? If you're able to I'd like some volunteers to explain what metacognition is to the group. This can be done as a whole group or in pairs. This is a metacognitive technique – remembering something by explaining it to someone else.	4mins
	In conclusion 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 achieve better in exams, but it's also helpful in the long-term. It helps with your independent learning skills, like now and in the future. As college and university students a lot of your learning is independent and the earlier you develop this skill the easier it will be when you reach higher education. Metacognition isn't about whether you get the right answer, it's about working out how you can learn best.	1min
	Thanks and well done to everyone. Any questions please use www.sli.do and #Metacognition or email them to outreach@essex.ac.uk	1min