### Teacher Information

**Teacher**: PhD Tutors/Outreach Practitioner/Teacher

**Co-ordinating officer**: Katie Caplehorn Hare

### Date and Period

**Date and Period**: 2020 onwards

**Room**: N/A

### Subject/Topic

**Subject/Topic**: Metacognition

**Level**: Pre-16

### Resources

**Resources**: PowerPoint, Nearpod (online), Metacognition Workbook

### Context:

In relation to:

- The group/learner needs
  - This lesson is targeted at improving understanding of metacognition so that students can begin to think metacognitively and improve their learning.
  - Students will already be practising metacognitive techniques as part of their school work. However, it is unlikely that they will have given these techniques much thought or that they will have even heard of metacognition.
  - Classes that complete these one off sessions often include students of mixed ability. The booklet therefore includes enough material so that students of all abilities are satisfied.
  - Teachers will have been briefed about the session beforehand and so the materials and topics covered should be suitable for all. A copy of the booklet can be sent beforehand to the teacher for their approval.

- The scheme of work

### Aims:

To improve understanding of metacognition and how it can be applied in an academic context.

### Objectives:

- All students should understand what metacognition is
- All students should successfully employ metacognition, at a conscious level, when completing the exercises set in the session
- Most students should understand why metacognitive strategies are important in academia
- Most students should be able to identify effective metacognitive strategies

### Methods/Activities/Timings:

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<tr>
<th>Timings</th>
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<tr>
<td>Students will be asked to log onto nearpod.com and engage in the memory test activity which involves matching the items and trying to remember where they are. If this activity can’t be completed move onto the next memory game. Ask students to think about the strategies used to memorise the location of the items.</td>
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<td>The next memory game is a variety of objects on the screen that they will have two minutes to try and remember. They will then be asked to write down as many of them as they can remember.</td>
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<td>There will then be a talk about different strategies and you will ask the students to take note of the following methods: there are different possible approaches that one could take, including creating mnemonics, self-testing, or visualising. The students will be asked to write down any other strategies they can think of and rate how effective they are.</td>
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<td>It will be explained that this kind of thinking is metacognition. It will be suggested that metacognition is about thinking about the ways that we think, monitoring them to see if they work, and then adjusting our strategy if we need to.</td>
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<td>Metacognition Phases, Planning, Monitoring and Evaluation. You’ll talk through an example and ask them to write their own.</td>
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<td>The benefits of learning metacognitive techniques – for example, boosting grades – will be pointed out to them, as will some more techniques for learning effectively.</td>
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The murder mystery is introduced and the second Memory Game begins. Students are asked to think about the method they will use this time and write it down in their workbooks.

Discussion and reflection on the second Memory Game. Students will be asked to consider how their method and their score compared to the previous attempt.

The session will then return to focusing on the murder mystery.

Look in the suitcase and decide which items might help us solve the case. The notepad is the one you want to click on to lead onto the next activity.

Explain that Harry, the protagonist, left a code on a piece of paper in his suitcase that would reveal the killer. This will help them reveal the killer.

The code-cracking exercise is introduced.

Hopefully some students were able to crack the code. For those that didn’t you will talk them through the strategy. Ask the students to think about what they tried and why they realised it didn’t work. Ask them to talk it out loud—important part of metacognition.

Ask students to write down their strategy and thought processes.

Explain that the act of thinking about what they’re doing and being really aware of it makes them more likely to succeed next time. Refer back to the metacognition phases to show that’s how they were able to crack the code.

Brief explanation of the table of strategies students can use to enhance their learning.

Concluding discussion. Students asked to recall what metacognition is acknowledging that this is itself a metacognitive technique. Students reminded that metacognition not only helps with their college work, but will also be useful if they come to university.

LEARNING CHECKS:

- To ensure learning has taken place, students are asked to record their strategies and thinking in their workbooks throughout the session.
- Throughout the lesson targeted questioning will be used to ensure students understand the importance of metacognition and the strategies that can be employed.

DIFFERENTIATED TASKS:

- The first two activities allow students to demonstrate their current strategies for learning and retaining information. By doing so, they will be able to compare these strategies to other ways of thinking developed throughout the session. The third activity will enable them to make this direct comparison.
- Tasks have been developed so the more able students have plenty of opportunity to expand their thinking, whilst less able students will still be able to complete the tasks with additional support (clues etc).

EVERY CHILD MATTERS/SAFEGUARDING CONSIDERATIONS

- Staying Safe/Making a Positive Contribution: it is important that the session leader is supportive and encourages all students to engage and contact them with any questions or problems.
- Enjoyment and Achievement: students will hopefully build on existing knowledge, which should give them a sense of satisfaction. Tasks have been designed to be fun, engaging and interactive so that students are encouraged to learn.
- Safeguarding procedures will be upheld. No isolated one-to-one contact with a student will occur, no physical contact with a student will occur and no contact details will be exchanged unless via the school. Any concerns about a student’s well-being will be reported to the Outreach Safeguarding Officer.
| E & D (a possible area for the T & L Development Plan) | The workbooks used in class are highly inclusive; all students have access to the materials required for the lesson. They are designed to include all relevant information required to improve understanding of metacognition and to encourage students to translate this theory into practice. |