

Example Metacognitive Reflection Prompts to Promote Deep Learning

	Planning Pre-activity or experience	Monitoring during activity or experience	Evaluating Post-activity or experience
Guest Lecture	Given the guest's area of expertise, list three questions related to the course as a whole that you would like the guest to answer.	During this two minute pause, write down the aspects of the lecture that you are finding the most challenging. In particular, note down any ideas or concepts that appear to contradict or conflict with your previous understanding.	Share with your partner the 3 most important points the guest made, and explain your rationale for selecting each one. How does your list differ from your partner's?
Assigned Reading	Describe the reading strategies you will use to deepen your understanding of the text. (e.g., annotations, reading notes, self-explaining).	Take a minute to assess how well you are distinguishing important concepts from less significant details. If all information appear important, what criteria can help you clarify how important something is?	Identify 2–3 portions of the text that you found the most interesting. What about these portions appealed to you? How have they impacted how you think about this topic now?
Video/Media	Generate a list of five questions about this topic that you hope to answer as a result of watching this video / interacting with this medium.	After viewing the video / interacting with the medium once, identify the specific areas you want to focus on during your second interaction. Why did you select these areas?	Write a paragraph on how you think this medium allowed you to explore the topic in ways that you otherwise could not.
Discussion	Discussions can be a great way to share one's perspectives and gain others, thereby deepening our understanding of the topic. Brainstorm a list of discussion guidelines that you will use to achieve these goals.	Over the next five minutes, take turns to share with your partner what you have found most insightful from the discussion so far and why.	Draw a concept map that summarizes the main discussion themes and analyze their connections to each other. Highlight 2–3 connections that you would like to explore further and list the steps you will take to do so.
Audience Response / Polling	List the problem-solving steps you will take to answer the question.	Rate how confident you are in your answer. What steps can you take to verify your answer?	Rate the level of difficulty of the question. What course material will you need to review to lower the difficulty rating?

Problem-solving / Case Method	Recall the different problem-solving strategies you have used previously, both within and outside of this course. Identify the strategy that you think is most effective for solving the assigned problem / case study.	Paired Think-Aloud: As you solve the problem, describe to your partner the steps you are taking, and your rationale for taking each step.	Evaluate the problem-solving strategy you employed, taking note of any errors that you made and possible reasons why. How would you modify your strategy to better approach similar problems in the future?
Debate	Work with a partner/group to identify the assumptions that you each may have about the topic. How do your assumptions compare to each other's? What steps can you take to determine the basis for your assumptions and whether your assumptions are valid?	Take 5 minutes to identify the areas of confusion that have arisen / are arising during the debate. What steps will your group take to quickly clarify these areas of confusion?	Write a paragraph describing your current perspective on the topic. Contrast this with your perspectives pre-debate. Reflect on how the debate has informed and influenced your current perspectives, and any other insights you may have gained.
Roleplay	Independent of the roles available, spend 10 minutes writing down your current thoughts and feelings about the topic. Deconstruct your experiences that may be contributing to your current response to the topic.	As you are playing your role, observe how you are relating to your character. What aspects of your character do you find easy or challenging to portray, and why?	Write a paragraph evaluating how your perspective on the topic and the character you played evolved throughout the roleplay, and the factors that you think led to those changes.
Collaborative activities	Consider your previous collaborations as you answer the following questions: <ul style="list-style-type: none"> - What skills and knowledge can you offer your group? - What types of support will you need from your group? - How can your group capitalize on each other's strengths? - What steps will you take to communicate effectively with your group? 	Take 5 minutes to assess your ongoing collaboration: <ul style="list-style-type: none"> - How well is your group working together? - What areas could your group improve on, and how? - How much are you contributing to the group? - How can you better support your group? - What additional support would you like from your group and/or instructor? 	Consider this collaboration as you answer the following questions: <ul style="list-style-type: none"> - What did your group do well together? - What modifications to your collaboration practices would you make to be a more effective group member? - Predict how your group would describe your collaboration skills? - What did you learn from your group?

Inspired by Table 2. Sample prompts for integrating metacognition into course activities, page 117 in Tanner, K.D. (2012). Promoting Student Metacognition. *CBE-Life Sciences Education*. Vol. 11, Summer 2012, 113-120.

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