



Learning WITH LEONG

Thank you for using our teacher materials for teaching 21st century skills. For this project, we have used [ACARA](#)'s general capabilities continuum for "[Critical and Creative Thinking](#)" and "[Personal and Social](#)" as a guide and inspiration.

Our focus for the materials that follow is on the specific skill of "**Metacognition.**"

Here, we try to provide straightforward material that can be used by educators to help make it easier to incorporate 21st century skills into units of study. The materials can be used as-is or altered to fit what works best for the intended audience. This document contains four parts...

1. **Lesson Planning: Questions for Consideration** - These questions are intended to prompt educators to think about the different ways they can incorporate this particular 21C skill into their lessons. The questions are not meant to be prescriptive in any way, nor is it intended that all of them would be applicable to every unit of study. They serve to simply offer ideas for consideration. These questions could be used by individual teachers interested in developing their lessons further, in department meetings to collectively brainstorm ways their specific subject matter could work to incorporate the 4Cs, or during professional development to support teams of teachers during their planning of units of study.
2. **Student Reflection Guide** – This section is intended for use directly with students as a way to help them become more aware of the ways in which they use various 21C skills and to contemplate the ways in which they can strengthen these skills. The guides are designed with the understanding that many of these skills can only be built through application and that metacognitive reflection helps to accelerate the acquisition of these skills. There are three pages for this section. First, a handout for students to complete at the beginning of a unit/project. Second, a check-in giving the students a chance to reflect and for the student or teacher to make some adjustments, perhaps, before the end of a unit of study. Third, a final reflection on the experience as it pertains to this particular 21C topic of focus. As with all of the materials, the expertise of the teacher would determine whether the guides are best used as-is or just in parts and can also be altered to fit the needs of the individual classroom.
3. **Character Analysis** – This section provides a list of questions to be used to examine and reflect on a person's or character's life as it relates to this particular 21C topic. The questions provide a lens through which to view that person's actions. Some examples of how to use them might be to ask students to apply them to the actions of a particular person in history, the professional trajectory of a scientist, the life of a famous artist/athlete/writer, or a character in a novel. They could be used for group discussion or to produce presentations or essays. The questions can also be applied directly to the

student's life, if desired. The hope is that through reflecting on the life of another person and how they demonstrated a particular 21C skill that the students will gain insight into the ways in which these skills impact people and can, perhaps, apply that to their own life as well.

4. **Standards** – In this section, we listed the standards that apply to this particular 21C skill. Specifically, elements from ACARA's continuums that apply to this particular topic are listed with a focus predominantly on Level 6 in the continuum. In addition, standards from several other organizations around the world are also included in order to offer educators more insight as to how 21C skills are discussed and to serve as a resource as they work to incorporate these skills into the curriculum. For more insight to these organizations, please refer to "[21st Century Skills – Resources for Educators.](#)"

We hope that the resources are useful to you!

Lesson Planning

21 Century Capability: Metacognition

Questions for Consideration:

1. Is metacognition modeled for the students? How to articulate one's thinking? How to take in criticism, other view points, or new information? How to adjust one's thinking when necessary?
2. Are students asked to identify what assumptions they have about the topic/work?
3. Are students asked to explain their thinking?
4. Are students asked to consider feedback/criticism and articulate how that impacts their thinking?
5. Are students asked to address other points of view?
6. Are there opportunities for students to articulate their thinking to a partner, group, or class?
7. Are students encouraged to acknowledge potential weaknesses in their thinking/positions?
8. Are there opportunities for students to reflect on their thinking and to adjust their views/ideas as needed?

Student Reflection Guide - Anticipatory

21 Century Capability: Metacognition

In this unit/lesson/project, we are going to be learning to/about _____.
(circle one) (circle one)

Before we begin, please write about what you know about this topic already.

What assumptions do you have about this topic/project?

What have you heard/read about what other people think about this topic/project?

Before we begin our learning, what are your thoughts/feelings about the subject and/or work we will do?

Student Reflection Guide – Check In

21 Century Capability: Metacognition

In this unit/lesson/project, we are learning to/about _____.
(circle one) (circle one)

Please write about what you know about this topic so far.

Have you come across any information/ideas so far that you were surprised by or were different than you thought they would be? Explain.

What kind of feedback/criticism have you received regarding your work/ideas so far? How did it make you feel? What did it make you think about?

Now that we are part way through the unit/lesson/project, what questions do you have? What do you think you need to understand more about?

Student Reflection Guide - Final

21 Century Capability: Metacognition

In this unit/lesson/project, we learned to/about _____.
(circle one) (circle one)

Please write about what you know about this topic now.

Compare what you knew/thought about this topic to what you know now. Has anything changed? Why or why not?

Looking back, how did you deal with/process/use feedback, criticism, and/or opposing viewpoints when it came to developing your ideas/project?

What were the most influential factors in your learning and development of your ideas in this unit/lesson/project? Explain.

Character Analysis

21 Century Capability: Metacognition

Questions for Analysis:

1. Did this person spend time thinking about what they were doing and why?
2. Was this person aware of the factors that influenced their choices/decisions?
3. How did this person respond to feedback/criticism?
4. When faced with opposing viewpoints, how did this person react? What did they do?
5. Was this person able to acknowledge when their ideas/plans were flawed or needed more consideration?
6. When did this person demonstrate flexibility in their thinking? Why do you think they were able to be flexible? How did that impact their life/work?
7. When was this person's thinking more rigid? Why was it rigid? How did that impact their life/work?
8. Would you describe this person as very self-aware and reflective or not? Why? How did this impact their life/work overall?

Standards

21 Century Capability: Metacognition

ACARA v8.4

CRITICAL AND CREATIVE THINKING

Think about thinking (metacognition)

4 - reflect on assumptions made, consider reasonable criticism and adjust their thinking if necessary

6 - give reasons to support their thinking, and address opposing viewpoints and possible weaknesses in their own positions

ACARA v9

CRITICAL AND CREATIVE THINKING

Think about thinking (metacognition)

4 - identify and reflect on thinking and assumptions when completing activities or drawing conclusions; invite alternative perspectives or feedback in order to improve future outcomes

6 - reflect on the thinking and processes used when completing activities and drawing conclusions; identify possible limitations in their own positions by considering opposing viewpoints, reasonable criticism and feedback