



# Learning WITH LEONG

Thank you for using our teacher materials for teaching 21<sup>st</sup> 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 "**Making Connections.**"

Here, we try to provide straightforward material that can be used by educators to help make it easier to incorporate 21<sup>st</sup> 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 "[21<sup>st</sup> Century Skills – Resources for Educators](#)."

We hope that the resources are useful to you!

## **Lesson Planning**

### **21 Century Capability: Making Connections**

#### **Questions for Consideration:**

1. Are there opportunities for students to draw from their experiences outside the classroom to inform their learning/work?
2. Are students asked to think about how past learning connects/informs their present work?
3. Are students asked to consider what other disciplines might be useful for the work they are doing?
4. Is technology used in ways that help students to bring together and connect ideas from various sources to create a greater understanding?
5. Are students asked to look for patterns, difference, and similarities among various information/material?
6. Are students asked to apply what has been learned from the past as a society/country/world to help address new problems?
7. Are opportunities given for students to transfer knowledge/skills from past lessons/experiences to new situations?
8. Are students asked to apply their academic learning in ways that allow them to engage in civic life?
9. Are students asked to articulate how their previous learning applies to new contexts?
10. Are students expected to demonstrate their previous learning in new situations?
11. Are students asked to use their historical understanding to help make decisions that take into account the potential impact of certain actions?

## Student Reflection Guide - Anticipatory

### 21 Century Capability: Making Connections

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 previous learning/experiences informs your understanding of this topic?

What other disciplines or experiences might someone use to gain a deeper understanding of this topic?

How might what we are going to learn about connect to events/ideas/needs in our community and/or the world?

## Student Reflection Guide – Check In

### 21 Century Capability: Making Connections

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.

What resources have you used in your learning? Have you noticed any patterns, similarities, or differences among the information gathered?

What information have you needed to use from other disciplines or your own experience so as to better do this work?

What skills have you found yourself using that you had already acquired previously?  
Where/when did you learn those skills?

## Student Reflection Guide - Final

### 21 Century Capability: Making Connections

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

Please write about what you know about this topic now.

Over the course of this unit/lesson/project, what previous knowledge/acquired skill came in most useful?

Describe a connection you made/observed between two sets of information/sources.

Describe how you applied your knowledge/skills to a new problem/project in this unit/lesson/project.

How might you use the learning/ideas from this unit/lesson/project and apply it to future work or in the community?

## **Character Analysis**

### **21 Century Capability: Making Connections**

#### **Questions for Analysis:**

1. Do you think this person was good at making intellectual/conceptual connections? Why or why not?
2. In what ways did this person connect/apply their previous learning to the work they did?
3. Why was it important for this person to make connections between ideas?
4. How did this person apply their skills from previous experiences to new situations?
5. What did this person learn from the connections they made?
6. What different disciplines did this person's work/ideas pull from?
7. What seemingly disparate ideas did this person bring together? How so? Why?
8. What was this person able to do as a result of the connections they made?

## **Standards**

### **21 Century Capability: Making Connections**

#### **ACARA v.8.4**

##### **CRITICAL AND CREATIVE THINKING**

Transfer knowledge into new contexts

6 - identify, plan and justify transference of knowledge to new contexts

#### **ACARA v.9**

##### **CRITICAL AND CREATIVE THINKING**

Transfer Knowledge

6 - identify, plan and justify opportunities to transfer knowledge into new contexts

#### **P21**

##### **CRITICAL THINKING AND PROBLEM SOLVING**

Reason Effectively - Use systems thinking; Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems; Synthesize and make connections between information and arguments

#### **C21 Canada**

##### **CREATIVITY, INNOVATION AND ENTREPRENEURSHIP**

1 - Learners apply knowledge construction in new problems and unknown situations that benefit people other than the learner.

##### **CULTURE AND ETHICAL CITIZENSHIP**

3 - Learners can critically analyse the past and present and apply those in problem solving or planning for the future.

#### **ISTE**

1.1. Empowered Learner - Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences. Students:

1.1.d. understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.

1.3. Knowledge Constructor - Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others. Students:

1.3.c. curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.

#### **AAC&U**

##### **CIVIC ENGAGEMENT**



Analysis or Knowledge: Connects and extends knowledge (facts, theories, etc.) from one's own academic study/field/discipline to civic engagement and to one's own participation in civic life, politics, and government.

#### FOUNDATIONS AND SKILLS FOR LIFELONG LEARNING

Transfer: Makes explicit references to previous learning and applies in an innovative (new and creative) way that knowledge and those skills to demonstrate comprehension and performance in novel situations.

#### GLOBAL LEARNING

Understanding Global Systems: Uses deep knowledge of the historic and contemporary role and differential effects of human organizations and actions on global systems to develop and advocate for informed, appropriate action to solve complex problems in the human and natural worlds.

Applying Knowledge to Contemporary Global Contexts: Applies knowledge and skills to implement sophisticated, appropriate, and workable solutions to address complex global problems using interdisciplinary perspectives independently or with others.

#### INQUIRY AND ANALYSIS

Analysis: Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to focus.

#### INTEGRATIVE LEARNING

Connections to Experience: Meaningfully synthesizes connections among experiences outside of the formal classroom (including life experiences and academic experiences such as internships and travel abroad) to deepen understanding of fields of study and to broaden own points of view.

Connections to Discipline: Independently creates wholes out of multiple parts (synthesizes) or draws conclusions by combining examples, facts or theories from more than one field of study or perspective.

Transfer: Independently adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations to solve difficult problems or explore complex issues in original ways.