



# 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 "**Imagining Possibilities.**"

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: Imagining Possibilities**

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

1. Are students encouraged to think creatively?
2. Is there time given to students to brainstorm their ideas together?
3. Are students encouraged to build on each other's ideas?
4. Are students asked to think about what different subject expertise could add to their ideas (i.e. history, math, physical education)?
5. Are there opportunities for students to work on their ideas while being in different settings (i.e. outside, at a museum, while listening to music, after moving their body)?
6. Are students asked to consider what ideas they might come up with if they were someone else (i.e. older, younger, a different personality, a different background)?
7. Is technology used in ways that help students brainstorm ideas and/or create?
8. Is there an opportunity for students to explore their ideas by representing them musically? Visually? Kinesthetically? Through a story or poem?
9. Are students given strategies or asked to discuss ideas for what to do when they get stuck and can't think of new ideas?
10. Are students given an opportunity to brainstorm possibilities while imagining there are no limits or restraints? Are they allowed to create with the perspective that anything is possible?

## Student Reflection Guide - Anticipatory

### 21 Century Capability: Imagining Possibilities

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 rules and/or expectations do you assume exist for this unit/lesson/project?

Imagine there are no restraints on what you can create/do for this unit/lesson/project. What might you do as a demonstration of your skills/learning?

What do you think would be the most expected/typical thing a student would come up with for this unit/lesson/project?

What might be the most unexpected/surprising idea that could be done for this unit/lesson/project?

## Student Reflection Guide – Check In

### 21 Century Capability: Imagining Possibilities

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 ideas have you thought of so far? Include all you can remember.

What have been your favorite ideas so far? Why?

Now imagine you are someone else (younger, older, an expert, a novice, etc.). What ideas might that person have that are different than yours? Or that might add to yours?

Now list two people who you haven't talked to yet about your project but who maybe would be useful/fun to discuss it with.

Now list two locations/environments where you haven't worked on your project but from where it might be nice/fun to work.

## Student Reflection Guide - Final

### 21 Century Capability: Imagining Possibilities

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 made it easiest to come up with ideas?

What made it difficult to come up with ideas?

What were some of the more unexpected ideas/connections you made/heard?

What, if any, of the different approaches to brainstorming ideas or creating might you use in the future?

## Character Analysis

### 21 Century Capability: Imagining Possibilities

#### Questions for Analysis:

1. Do you think this person was good at imagining possibilities? Why or why not?
2. How did this person go about brainstorming ideas?
3. What were some of the ideas/creations this person came up with that were unexpected, innovative, or particularly creative?
4. In what ways was imagining possibilities challenging for this person?
5. How did their own or society's limits impact their ability to come up with ideas?
6. How did this person's work/efforts break boundaries or demonstrate out-of-the-box thinking?
7. Did "play" help this person to create? How so?
8. What role did others play in helping this person with ideas?
9. How did this person's skills in imagining possibilities help them to...
  - a. accomplish their goal?
  - b. realize their dream?
  - c. overcome an obstacle?
10. How did this person's lack of ability/desire to imagine possibilities impact their ability to...
  - a. accomplish their goal?
  - b. realize their dream?
  - c. overcome an obstacle?

## Standards

### 21 Century Capability: Imagining Possibilities

#### ACARA v.8.4

##### CRITICAL AND CREATIVE THINKING

Consider alternatives

6 - speculate on creative options to modify ideas when circumstances change

Transfer knowledge into new contexts

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

Imagine possibilities and connect ideas

5 - draw parallels between known and new ideas to create new ways of achieving goals

6 - create and connect complex ideas using imagery, analogies and symbolism

#### ACARA v.9

##### CRITICAL AND CREATIVE THINKING

Create Possibilities

6 - create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

Consider Alternatives

6 - consider alternatives by creatively revising and modifying ideas and recommendations when circumstances change

Transfer Knowledge

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

#### P21

##### CREATIVITY AND INNOVATION

Think Creatively - Use a wide range of idea-creation techniques (such as brainstorming).

##### CRITICAL THINKING AND PROBLEM SOLVING

Solve Problems - Solve different kinds of non-familiar problems in both conventional and innovative ways

#### C21 Canada

##### CRITICAL THINKING

3 - Learners take action and formulate creative solutions for authentic use in real world problem solving relating economic, financial, environmental and social contexts.

#### ISTE

1.4. Innovative Designer - Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions. Students:



1.4.a. know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.

1.4.c. develop, test and refine prototypes as part of a cyclical design process.

## **AAC&U**

### **CREATIVE THINKING**

Innovative Thinking: Extends a novel or unique idea, question, format, or product to create new knowledge or knowledge that crosses boundaries.

Connecting, Synthesizing, Transforming: Transforms ideas or solutions into entirely new forms.

### **INTEGRATIVE LEARNING**

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.