



# 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 "**Calculating Risk.**"

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: Calculating Risk**

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

1. Are students asked to clearly define their goal?
2. Are students asked to gather as much relevant information as possible?
3. Are students asked to brainstorm all possible approaches?
4. Are students asked to consider the risks and rewards of each possible course of action?
5. Are students asked to consider their own and others' risk tolerance?
6. Are students asked to have contingency plans in case something does not go as planned?
7. Are students asked to predict and test possible approaches?
8. Are there opportunities for students to modify their approach based on new information/findings?
9. Is an environment fostered in which calculated risks are encouraged and supported?

## Student Reflection Guide - Anticipatory

### 21 Century Capability: Calculating Risk

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.

Write about a time you took a risk.

How did you go about deciding whether or not to take the risk?

Was the risk worth it? Explain.

What potential risks do you think could be involved in this unit/lesson/project?

**Student Reflection Guide – Check In**

**21 Century Capability: Calculating Risk**

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 explored as possibilities in this unit/lesson/project?

What would be the risks involved for each one of those ideas?

Which approach would be the least risky? Why?

Which approach would be the most risky? Why?

How might you decide which one is worth the risks involved?

## Student Reflection Guide - Final

### 21 Century Capability: Calculating Risk

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

Please write about what you know about this topic now.

What decision/action did you finally make?

What risks were involved?

What was the reward for taking such a risk?

What did you learn about calculating risks that might be useful later? Explain.

## Character Analysis

### 21 Century Capability: Calculating Risk

#### Questions for Analysis:

1. Do you think this person was good at calculating risks? Why or why not?
2. What risks did this person take?
3. What was the benefit/reward for taking these risks?
4. What were some of the negative consequences for taking these risks?
5. How did this person go about calculating the risk involved?
6. What information did the person need to calculate risk?
7. What was this person's risk tolerance?
8. In what ways was calculating risks challenging for this person?
9. How did this person's skills in taking calculated risks 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 take calculated risks impact their ability to...
  - a. accomplish their goal?
  - b. realize their dream?
  - c. overcome an obstacle?

## **Standards**

### **21 Century Capability: Calculating Risk**

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

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

Seek solutions and put ideas into action

6 - assess risks and explain contingencies, taking account of a range of perspectives, when seeking solutions and putting complex ideas into action

Reflect on processes

5 - evaluate and justify the reasons behind choosing a particular problem-solving strategy

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

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

Put ideas into action

6 - put ideas into action by making predictions, testing and evaluating options, proposing modifications and adapting approaches in complex or unfamiliar situations

Draw conclusions and provide reasons

6 - draw conclusions and make choices when completing tasks, using analysis of complex evidence and arguments before making recommendations

Evaluate actions and outcomes

6 - evaluate the effectiveness of a course of action to achieve desired outcomes and suggest improvements, including using a personally developed set of criteria to support judgements and decisions

#### **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.b. select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.

#### **AAC&U**

##### **CREATIVE THINKING**

Taking Risks: Actively seeks out and follows through on untested and potentially risky directions or approaches to the assignment in the final product.