

**Project**  
**The Great ^ Escape!**

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Aoun (2017) argued that "a robot-proof model of higher education is not concerned with topping students off with high-octane facts. Rather, it refits their mental engines, calibrating them with a creative mindset and the mental elasticity to invent, discover or otherwise produce something society deems valuable" (p. xviii).



# Project-Based Learning (PjBL)




PjBL is “an inquiry-based instructional method that engages learners in knowledge construction” (Guo et al., 2020, p. 2) by working on authentic, meaningful projects that strengthen critical thinking, analytical, problem-solving, and communication skills, as well as teamwork, as preparation for entering the workforce.

There are three phases in PjBL: comprehending the problem, investigating and analyzing the problem, and proposing possible solutions and defending/presenting them (Lugnet & Ericson, 2022; Rohm et al., 2021).

When gamification is applied to PjBL, it enhances students’ learning experiences, motivates participation, deepens subject area knowledge, and aids in the development of cognition, interpersonal skills (Ferguson et al., 2019; Guo et al., 2020; Huang et al., 2022) and meta-skills students need to acquire in order to succeed in the real-world (Yeo et al., 2017).

The gamification must align with course learning objectives (Adare-Tasiwoopa api & Silva, 2024; Clapson et al., 2023) and the skills needed in the game must mirror those needed in the real world (Yeo et al., 2020).



 To prepare our students to be robot-proof, as well as future-proof, and real-world ready, what will benefit our students in terms of teaching and learning?





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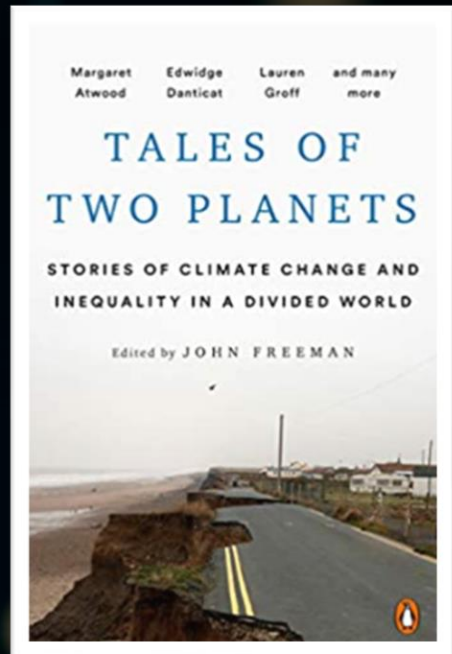
## The 4Cs

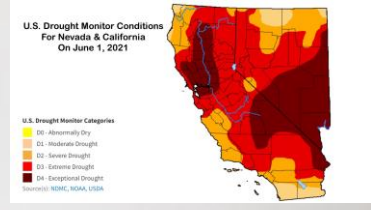
Creativity  
Critical Thinking  
Collaboration  
Communication

A.K.A Meta-Skills



# Let's put the 4 Cs into Action in a Project-Based Learning Escape Room





# The Scenario



It's 2027. You're working on renowned scientist Dr. Olivia Marvel-Newton's team, rushing to develop and implement an environmental plan to save the American Southwest before climate change reaches the point of no return. Lake Mead is on the verge of dead pool. Hoover Dam barely generates electricity. As a result, massive rolling blackouts plague the Las Vegas valley and beyond into California. The states that rely on the Colorado River, Lake Powell, and Lake Mead for water have implemented severe conservation measures, but the combination of prolonged extreme drought and the Greenhouse Effect continue to deplete the water supply. Globally, each passing year exceeds the last as the hottest ever recorded.



# The Scenario



Although brilliant and driven, Dr. Marvel-Newton is obsessed with security. She doesn't trust the Cloud, or computers for that matter. She stores all her research, plans, and strategies in her head, but she does keep some parts of them in hard copy form and other parts on an unnetworked laptop in her ultra-secured home office. While making a final aerial survey for the plan, Dr. Marvel-Newton's helicopter crashes. She survives but lies in the hospital in a coma. Dedicated as ever, as the helicopter goes down, she heroically fires off an encrypted voice message from her phone. It says, "Three minutes to add up the correct answers at G to open door. Seven minutes to type cryptic. Find clues for letters." It's up to the team to decipher her message. Fortunately, you know what G stands for. Once the team assembles outside Dr. Marvel-Newton's office door, you access G...



Dr. Marvel-Newton's voice message:

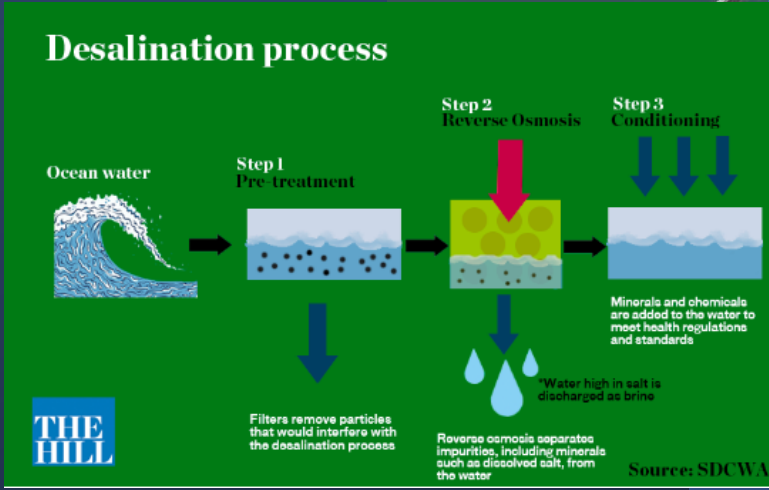
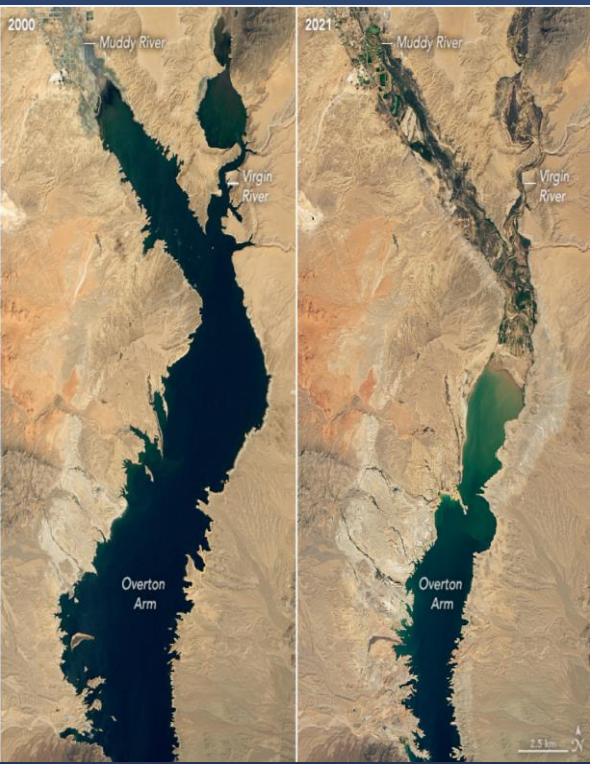
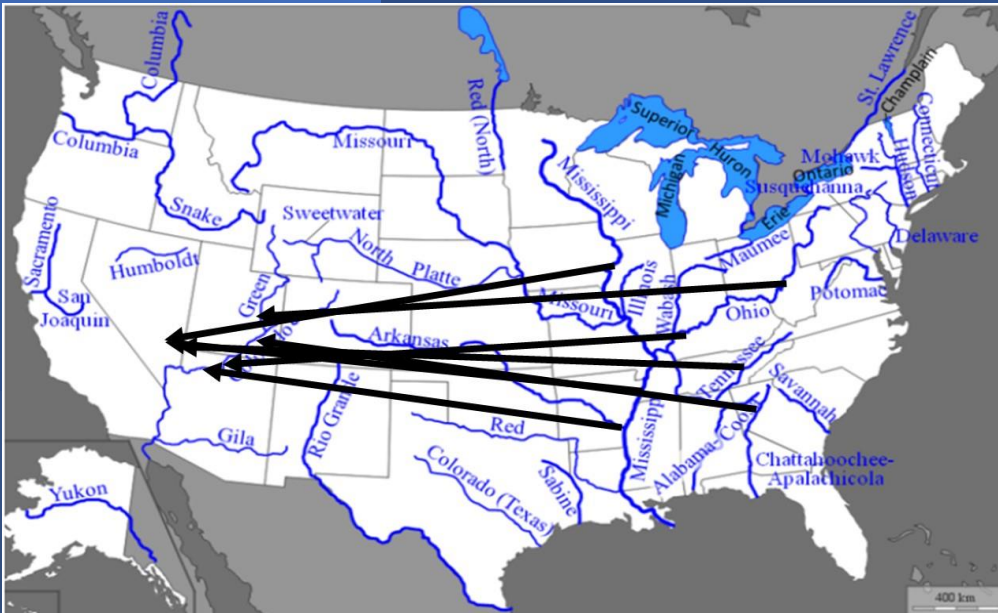
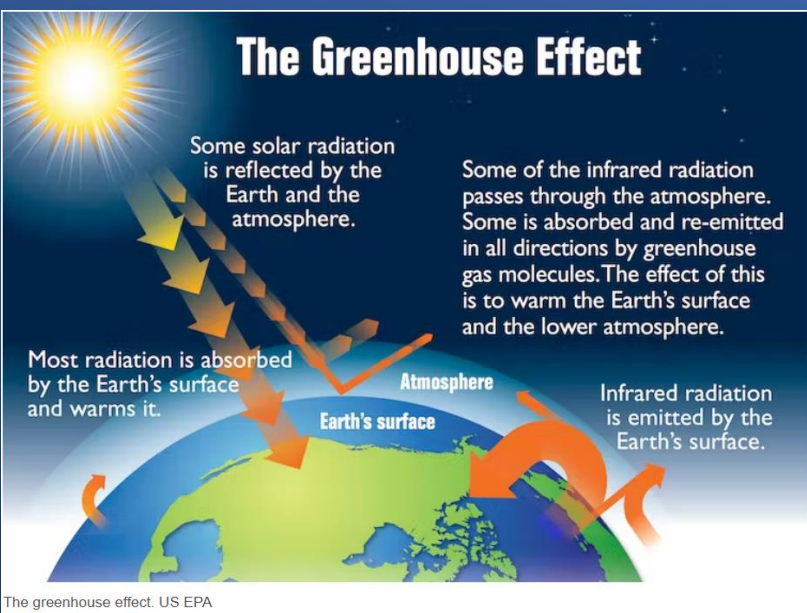
"Three minutes to add up the correct answers at G to open door. Seven minutes to type cryptic. Find clues for letters."

## Climate Change Project & Learning Outcomes

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- **Locate, evaluate, and synthesize information from scientific literature**
- **Assess key concepts and apply them to environmental issues**
- **Illustrate ways in which environmental science can be used in solving environmental issues such as environmental health, food and agriculture, energy, pollution, climate change, greenhouse gas emissions, water quality, and resource management**
- **Design a project that addresses a climate change issue**
- **Communicate complex environmental information and science effectively through written work and oral presentations to a variety of audiences**





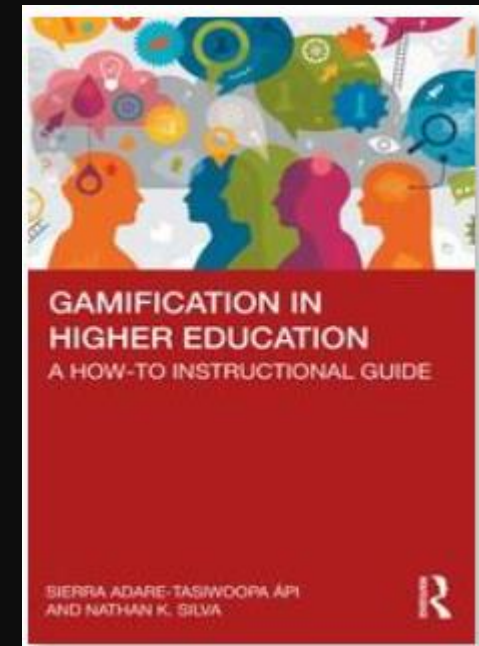
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Questions? Contact me.

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*Gamify Your College Classroom: Strategies to Foster Life Skills  
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