DETAILED PROJECT PLAN

The project. In this project, students will learn about the vulnerabilities of the current food system in Hawai'i, as well as the origins of the import-based food system. They will use inquiry and research skills to confront the task of making changes to how Hawai'i feeds its people. Finally, they will use research, collaboration, and critical thinking to participate in a simulation of a major hurricane hitting Honolulu and decimating food supply infrastructure.

TEACHER TIP || Questions to ask when planning to roll-out this project*:

	Prior Knowledge: *What prior knowledge (if any) do my students have about the Hawai'i's food system, disaster preparation, and how climate change has affected hurricane frequency in the Pacific?*
Authentic Audience: *How can you bring authenticity to the simulation itself? How will students convey their learning to the actual professionals involved in disaster planning - engineers, politicians, fellow consumers? What type of planning do you need to do to ensure that those audience members can have a role in your students' projects?*	
	Context in Place: *How would my students be directly affected by destruction to Honolulu infrastructure? Do they understand their relationship to the Port of Honolulu? Where do most students get their food?*
Project Management: *Will students work alone or in teams? If students work in teams, how will they be assigned? How will they be assessed individually vs. in a team?*	

***Project-based learning vs. traditional lesson planning:** *In the midst of project-based learning, students are actively doing the work, learning, creating, and inquiring - eventually heading towards their end goal or product. Often misunderstood is that the organized chaos of what you might see in a PBL environment is carefully and intentionally designed by the teacher well before the project begins. The questions above should allow you to set the stage for student learning to unfold in the following project. Anticipating student questions and areas of need will help you to feel planned and ready in advance of a project.*

Essential Question:	How can individuals work together to meet the challenge of feeding Hawai'i during a hurricane?

Skills and content needed to answer the Driving Question: *Refine these skills and content standards to the scope and need of your project. This project is designed to be interdisciplinary - but if you don't teach a subject, it doesn't mean that that skill or standard can't still play a role in the experience! - These selected skills and content will be supported throughout the project with activities, formative assessments and additional resources.*

Skills	Content/Standards
• Inquiry-Based Discussion • Critical thinking • Collaboration • Reflection • **Add other skills to practice in this project*	**CCSS.ELA-LITERACY.RI.7.3** Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events). **CCSS.ELA-LITERACY.SL.7.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. **CCSS.ELA-LITERACY.SL.7.1.A** Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. **CCSS.ELA-LITERACY.SL.7.1.C** Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. **SS.MHH.2.14.3** Analyze environmental changes that resulted from the plantation system **SS.PID.5.7.1** Plan and demonstrate some ways in which an active citizen can effect change in the community, state, nation, or world **SS.9-12.1.2** Critique compelling questions that reflect an enduring issue in the field **Add or remove standards to practice and assess in this project*

Activites, Products and Assessments: *Below you will find the proposed activities, student products and assessments for this project. Refine them to match the scope and need of your project, making sure that they align with the skills and content you chose to drive from in the previous section.*

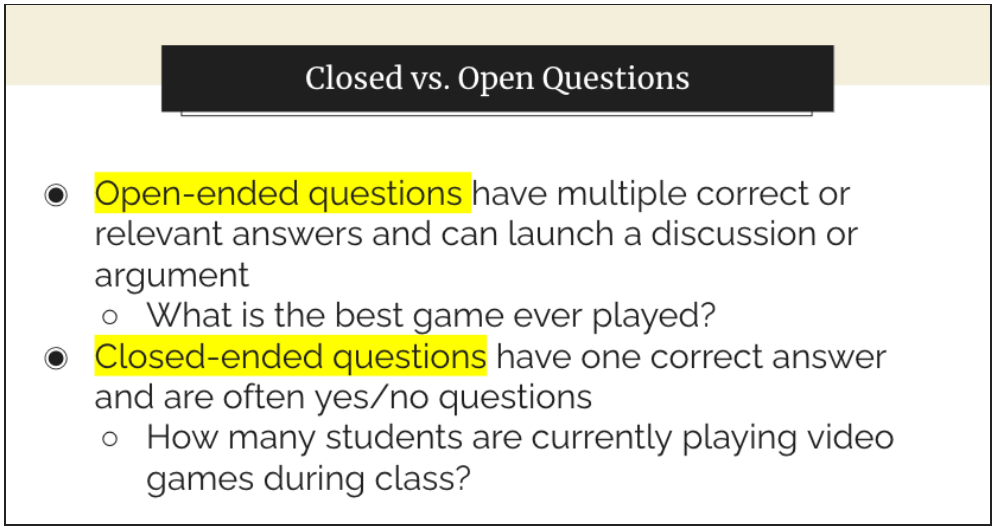
Final project & summative assessments:

Students conduct a simulation of a major hurricane hitting Honolulu.

Teacher Tip: Present the project calendar early on to show students where they are headed. *Students should know what is expected at the end from the beginning of the project. Use the templates provided to plan out the scope and sequence of the project. Include students in this process.*

Food Security during COVID-19 How has Hawaii's current dependence on imported food already affected your sense of food security during the COVID-19 pandemic? **Activate students' prior knowledge and connect to their daily lives** with a discussion about the changes they noticed throughout the worst of the COVID-19 pandemic and quarantine. Using a **gallery walk** of photos from food banks, grocery stores, and restaurants in the spring of 2020, ask students to think/pair/share about the following questions: 1. *When quarantine began in the spring of 2020, how did your family stock up in case of shortages?* 2. *What changed about how you got your meals?* 3. *What differences did you notice about food in Hawaii during the pandemic?* Use the **graphic organizer** provided to help students capture both their own thinking and what they hear and connect to from their peers. This can be structured as a whole class discussion, small group discussion, or series of partner discussions.	**What to collect from students:** -Graphic organizer of memories, ideas, and reflections on how the strain on Hawai'i's food system during the pandemic affected their lives. **Type of assessment:** -Formative **Skills and content:** -Reflection -Discussion (CCSS.ELA-LITERACY.SL.7.1)
***A Climate for Change* Question Formulation** How did engineers and state employees deal with food shortages due to COVID-19? What questions do you have about Hawai'i's food system and emergency scenarios? **Watch *A Climate for Change* Episode 3 and guide students to ask questions about Hawai'i's food supply chain and disaster readiness.**	**What to collect from students:** -CfC Note Catcher -Chart paper with a list of questions from each group - As an exit ticket, ask

Ask students to brainstorm and discuss: what makes a good question? Why might asking questions be an important skill?
*Make sure students are familiar with the definitions of open and closed questions; make plans to explicitly teach this if it will be new information.



Refer back to the previous discussion about students' own experiences with food shortages during the pandemic. Ask them to discuss with a partner about why stores experienced shortages and what processes were disrupted by the pandemic. Let them know they are about to learn much more about how food distributors in Hawai'i dealt with the challenges of the pandemic in the film, *A Climate for Change, Episode 3*.

Announce to students that instead of taking notes about what they learn from the video, they will instead be using the video to **generate questions** about what they are still wondering and curious about. After the video, they will be working in groups to follow a protocol called Question Formulation Technique. Preview the note catcher where students will capture their thinking.

Play *A Climate for Change* Episode 3 from the beginning to minute 10:35. Pause to allow students (preferably in partners or groups) to fill out their thoughts on the graphic organizer.

Play *A Climate for Change* Episode 3 from 20:05 to 29:45 (optional: continue to 34:32). Pause to allow students (preferably in partners or groups) to fill out their thoughts on the graphic organizer.

Review the instructions for the QFT protocol:
- Teacher provides a question focus (in this case, the film clips).
- Students work in groups to ask as many questions as possible.
- Students identify if their questions are closed or open.
- Students edit questions if they need more open or closed.

students to identify the 2-3 questions that are most pressing to them. This question is provided on the back of the note catcher document.

Type of assessment:
-Formative

Skills and content:
-Inquiry-Based Discussion

-Collaboration

-Critical Thinking

-Generating and Evaluating Questions (CCSS.ELA-LITERACY.SL.7.1.C, SS.9-12.1.2)

- Students prioritize the questions they most want to investigate - they should choose 3 that are most intriguing and important to them.

Model how to use film notes to generate questions. Pass out chart paper to each group for writing and labeling their questions. Display the instructions and a timer for each stage of the protocol.

By the end of the learning moment, each group should have had the opportunity to **generate at least 10 questions**, accurately differentiate between closed and open questions, and identify their 3 most pressing questions.

A Broken Food System

How did Hawai'i's food system become dependent on imported food? What is being done to change this model?

Before this learning moment, review student identification of their most pressing questions *(previous learning moment's exit ticket)* and adapt this graphic organizer.

Review the prioritized questions and recall what most struck students about the clips from *A Climate for Change*. Students will be using their nonfiction comprehension skills to begin finding answers to their most pressing questions.

In partners, students **read** the Civil Beat article "Hawai'i's Food System is Broken. Now is the Time to Fix It." and complete the graphic organizer. The graphic organizer will prompt them to use a nonfiction comprehension strategy in which they preview *text features, make predictions, and connect to their questions about the topic.*

Using chart paper or shared Google Slides (one question per page or slide), invite students to share their findings in a graffiti walk. After the graffiti walk, discuss common noticings, address misconceptions or disagreements, and consider what information is still needed to address each question.

What to collect from students:
-QFT Investigation Graphic Organizer

Type of assessment:
-Formative

Skills and content:
-Inquiry-Based Discussion

-Collaboration

-Nonfiction Comprehension (CCSS.ELA-LITERACY.RI.7.3)

Audience + Scope. As you move into the next stage of the project, start determining who the final audience of the project will/can be, and what the scope of the project will be.

Consider the following: ***(use the planning document):***

A. **Audience:**
   a. **How can I introduce the idea of an authentic audience to a classroom simulation?** *(i.e. How can I make the simulation as authentic as possible by helping students "get into" their roles at a high level? How might students present their learning to the real-life professionals they will be playing?)*

b. **How is the selected audience authentic to what students will be creating?** *(ex: If students are developing plans that pertain to Hawai'i emergency preparation, who else should know about and benefit from this new knowledge?)*

B. **Scope:**
   a. **What scope of the final product do you want to work towards with your students?**
      i. **Individual scope:** Students individually produce a final product, *their Simulation Student Document.*
      ii. **Group scope:** Students work in student teams to produce a final product, *their Group Simulation Document.*
      iii. **Whole class scope:** Students work together towards a whole class product, such as a community event, *such as a group presentation about emergency preparation to professionals in the community.*
      iv. **Combination of the above**

Hawai'i Hurricane & Food Supply Simulation

What actions can I take to keep Hawai'i fed during a natural disaster? How can groups respond to challenges presented by climate change?

Assign roles for the simulation *(found in the Simulation Slide Deck linked below).* You may choose to allow students to select their own roles, assign randomly, or assign based on each student's interests and needs. There are 10 roles and the simulation is designed for each role to be played by small groups. Make sure you clarify how groups should collaborate - does each student complete their own document or will they work together to complete the same one?

Review the rules of the simulation and answer student questions:

- The goal of the simulation is to collectively earn 100 points - this will mean that you have kept the island fed in an emergency situation.
- In each stage of the storm, we will roll a die to determine what happens. The dice will be "loaded" based on actual probability. After events "occur," you will have the opportunity to submit an action in response.
- Each time you submit an action, you have the opportunity to earn points for the class.
- The simulation has 3 parts: **Preparation, the Storm, and Aftermath**. The preparation round should include ample time for groups to conduct research and write a collaborative paragraph. If breaking the simulation into multiple class periods, begin each period with a recap of the events thus far and discuss student reflections.

Facilitate the simulation using the Simulation Slide Deck. Display the cumulative points in a central location and invite reflective discussion when appropriate.

What to collect from students:
-Simulation Student Document

Type of assessment:
-Summative

Skills and content:
-Collaboration

-Critical Thinking

-Discussion (CCSS.ELA-LITERACY.SL.7.1)

-Writing (CCSS.ELA-LITERACY.WHST.6-8.1)

-Gathering Information & Citing Sources (CCSS.ELA-LITERACY.W.8.8)

Call to Action/Voices for Hope

What actions can individuals take to support their community in an emergency?

Ask students to reflect on their takeaways and emotions from the simulation. Be prepared for students to express concern about how they and their families would fare in an actual serious hurricane. Let them know that this next learning moment will focus on the many efforts to build a sustainable food system and climate change resilience in Hawai'i.

In groups or even as a whole-class discussion, complete a chart like the following:

Reasons for Hope	Actions I Can Take

Encourage students to think back to their role preparation research, the end of the Civil Beat article, and noticings from their own communities.

Show students the video Mālama Moloka'i: Heal the land, Harvest water, Grow Food Security **(suggested clip: beginning to minute 6:13)** and/or read "See For Yourself: The Food (Systems) Scene in Hawaii" by Pomai Weigert. Add to the chart based on these visions for food security and change in Hawai'i.

Students will complete a final reflection on the project. This may be written or recorded using a platform like FlipGrid. *(As an extension, students may want to write to their elected officials to urge more action on the topic of emergency preparation and local food systems.)*

Students should answer:

- *What was the most important thing I learned about disaster preparation and food systems in this project? Why was this important to me?*
- *What did I learn about myself by participating in the simulation? How might I respond in a real-life disaster?*
- *In the film A Climate for Change, Chad Buck says that he once believed there was an adult looking out for Hawai'ians and preparing for disasters. After completing the simulation project, how do you feel about that statement? Should there be "an adult" watching out for us - or how else might we prepare for disasters?*
- *What skills or knowledge would I like to develop after completing this project? Why?*
- *How can I take action on important issues that arose in this project? What will my own impact be?*

What to collect from students:
-Student Final Reflection

Type of assessment:
-Formative

Skills and content:
-Reflection

-Critical Thinking