

Lesson/Problem: Geography and Food Production, Which world location is best?

Time Allotment: 1 week (60 min daily)

Lesson/Problem Essential Questions (LEQs):

1. Which benefits and disadvantages do different real world geographic locations have in regards to providing food for its population?
2. How does the physical geography, political geography, and economics of a location relate to each other.
3. What places in the world provide the best/worst environments to feed its people.

How a solution to the problem will be generated:

- In groups of 4, students choose 3 real world geographic locations and identify the items of LEQ 1.
- Students then analyze the pros and cons of each location and how they relate (LEQ #2)
- The group evaluate which location is best, 2nd best, worst.
- Finally, the collective creates a presentation to show to their classmates, as well as other teachers on the Unit Problem team using different types of media and engagement tools.

Lesson Sequence:

Introduce/Set Objectives:

Use the computer game “Banished” (a resource/survival strategy game) to engage students through curiosity and novelty. In this game, a group of people (clan) are dropped into the wilderness with limited supplies, and must use their environment to provide for their survival needs – food, shelter, health, ect. Students will engage by seeing if their teacher can guide their clan, or allow it to perish.

Model:

The game constantly reminds the player that the people are hungry and need food. Regardless of what additional objectives the students try to demand, this hunger icon will continually pop up over people within the clan. The teacher can elicit what resources are available for food and where they may be able to discover them (berries in forest, fish in river --- grow crops if you have seeds in your supplies and sufficient soil). The teacher attempts to collect fish from the river, grow wheat on a mountain, utilizing the land successfully – as well as unsuccessfully. They go back to only fishing and end up depleting the resource completely. This encourages discussion about physical geography, comparing the similarities of the virtual setting to a real world location, how to use the geography for food, what the positives and negatives are for locations, and the limitations.

Guided Practice/Concept Checking:

The game is reset, and the clan is dropped in a new and different location, such as an arid/desert. The students direct the teacher to explore and do different actions, while the teacher concept checks by asking “why” for the actions and clarification for certain vocabulary used. Any action is attempted, regardless if the result is positive or not. After the game session is ended, students debate on which of the two sessions were more successful.

Independent Practice:

Students are paired and given a map of a country, which shows the geographical features and population figures for various areas within it. The students are asked to hypothesize whether or not their given country would easily provide food for their populations, or if hardships might occur. The students MAY use their prior knowledge of the country if they have any – raising political issues, economic issues ect. However, if no prior knowledge is known, just the information from the map will suffice.

Check for understanding/closure:

The teacher monitors the discussions taking place in the classroom. At the end of a set time, each pair briefly shares if they believe their given country could sufficiently feed its people.

Assess progress:

Students are given the “How the solution to the problem will be generated:” procedure (above). The final presentation will be assessed by both teachers (against agreed standards) AND students (who will compare the presentation to the work of themselves and other students).

Lesson Strategies:

Differentiation: Some students may need to be given specific locations if they can’t think of ones to choose.

If group roles cannot be agreed upon, the teacher may need to facilitate them.

If poor at researching, students may need prescribed sources rather than at large.

Best Practices: Change the routine with group work, use of games for novelty, encourage debate and multiple solutions, use authentic texts and technology to support analysis

Group Organization: Student given the choice to freely select their group of 4, with the caveat that this puts sole responsibility for productivity on themselves. They are advised to choose based on a collection of their skills, not just who their friends are.

21st Century skills focus: Collaboration, initiative and self-direction, leadership and responsibility, high order skills

21st Century Themes focus: Global awareness, environment, civics