

Lesson 3: Mediterranean Climate Zone

Learning objectives:

1. Students will create a flipped classroom segment displaying an aspect of the Mediterranean climate zone.
2. Students will critically decide which research sources are reliable for gathering information.

Assessment criteria:

1. Flipped classrooms portray accurate information in an engaging and creative manner.
2. Bibliography includes encyclopedias and database articles as sources.

Benchmark/Standard:

Global patterns of atmospheric movement influence local weather. *National Science Education Standards: Observe, Interact, Change, Learn*. Washington, DC: National Academy, 1996. 160. Print

Prior Knowledge/Prior Conceptions:

Students need to know how to navigate the internet. Students also should know that climate zones differ around the world.

Instructional strategies:

This activity is a collaborative group assignment using technology. This is the first time in the unit the students will be doing a flipped classroom so some students may grasp the assignment quicker than others. Differentiated instruction and scaffolding from the previous lesson will be revisited. Monitoring and supporting individual groups enhances teaching and focuses on the assignment.

Instructional resources used:

Encyclopedia and database articles were used for content.

Materials and set-up needed:

1. One computer per group
2. One video recorder per group

Time required:

Two class periods (50 minutes each)

Introducing the lesson:

The lesson will be introduced with the assignment for students to create a flipped classroom video on the Mediterranean climate zone. The teacher will separate the classroom into groups of four to five students. Each group has the responsibility of reading information and articles regarding the Mediterranean and to create a video portraying the information that will be shown to the rest of the class. The teacher will provide certain articles and encyclopedia entries that the groups can choose from as well as guidelines for research if the students want more options. Before starting the project, the teacher will do a short reading activity. Together as a class, the articles chosen for the project will be critiqued for their reliability. Questions that the teacher can pose may be “Where is this source from?” and “What kind of website was this article published on?” The teacher needs to make the point that online sites with “.edu” and “.org” are reliable whereas “.com” articles may not be fact checked. The

students will identify which databases and encyclopedias the articles came from and are encouraged to do further research using these sources.

Body of the lesson:

Once the students are able to categorize a reliable source from a shaky one, the groups will break up and begin their flipped classroom projects on different parts of the Mediterranean. The Mediterranean climate zone is found in many different areas around the world. The first component of the project is for each group to research the characteristics of the climate zone. The second part of the project is to research the different cultures that thrive in this climate zone around the world. This climate zone is unique because there are multiple small pockets in distinct regions. Groups will focus on the cultures of: the European coasts on the Mediterranean Sea, the African coasts bordering the Sea, Cape Town in South Africa, central Chile, southern California, and southwestern Australia. Each culture uses the climate zone in different ways. Students will focus on how the climate affects vegetative life and how different groups cultivate the land. The teacher should look for examples of foods the people eat in these regions as well as how and when the people harvest their food. Students should try to show examples in their video i.e. in the Mediterranean people like to eat pita bread, so a student can show in the video what pita bread looks like. The videos should be approximately 5-7 minutes of film.

Wrapping up the lesson:

The lesson will end by presenting the videos to the class. Each video should begin with common information on the definition of the Mediterranean climate zone, then should differ depending on the assigned part of the world they were assigned to examine. As the students watch the flipped classroom videos, they will be asked to record in their journals something new they had learned about the different cultures around the world and how climate can shape a culture.

Evaluating learning:

This lesson will be evaluated in three ways: how the students created the flipped classroom, what sources were used for the presentation, and the journal entries during the presentations. The students need to meet the required 5-7 minute time frame for the video, as well as present visual examples of their research. The video should not just be a "talking head". Students need to be creative and either show a short video clip or various images as well as everyday examples. The students will be critiqued on which sources they chose for their project. They will be asked to submit a form with all of the links and/or book title so that the teacher can check if it is reliable. The teacher should monitor throughout the project what sources are being used, so by the end of the project each source will be sufficient. The teacher, to ensure that the flipped classrooms were effective and that the students were engaged, will also review the journal entries. Since this is the first time the students will be creating a project like this, the teacher can be lenient. Using unfamiliar technology is difficult to adjust to, so the teacher can use discretion when giving out grades.

Design Rationale:

It is important that students are being exposed to the up and coming technology because if they are not prepared to operate the newest technology, they may feel at a disadvantage. This project puts a spin on the traditional at-home video project by using it as a teaching tool, not as a reflective project. Students need to feel accountable for their learning, and I believe that students will rise to the occasion if a teacher gives them an important responsibility. For this project to be most meaningful, the teacher needs to make sure that students understand that their projects are the tool for teaching the whole class. The flipped classroom is a new idea that is quickly taking storm around the country. Flipped classrooms help alleviate time taken by lecture. If used properly, there is more time in class to do

activities and visit more difficult problems. By having the students create a flipped classroom is encouraging them to critically think.