GUIDED PRACTICE

Class: GEO 3510 – Geography of California
Date assigned: second class session
Date due: third class session
Time estimate to complete this assignment: approximately 60-75 minutes

Overview/Introduction

What is this lesson about? Why do we care?

This lesson introduces Earth's geologic history and timeline. This creates a foundation of how California's landforms were developed, and the different elements that play a role in shaping the landforms. Students will be able to understand California's current shape and the elements influencing its progression.

Learning Objectives

Basic objectives

List 3-5 learning objectives that you expect students to be able to master on their own before class.

1. Students will be able to describe the geologic timeline and the age of Earth including the current epoch the Anthropocene.
2. Students will be able to explain how landforms change and what processes are involved.
3. Students will be able to distinguish between internal and external processes that shape landforms.

Advanced objectives

List 3-4 learning objectives that you expect students to need help mastering.

1. Explain the four perspectives geographers use to study landforms.
2. Describe the Wilson Cycle and supercontinents and explain where California is categorized within this process.
3. Explain the movements of plate tectonics and the two directions that California is moving towards.
4. Demonstrate how the landforms develop from the different processes.

Preparatory Activities and Resources:

1. Give detailed, action-oriented instructions for completing the Guided Practice assignment. Keep in mind that the activities should be minimal, simple, engaging, productive, and failure tolerant (see Talbert, 2017, pg. 135)

    a. Read from the class online textbook (links below)
    b. Take notes on the chapters
    c. Create a concept map from the notes, focus on the main topics and how they interact with one another.
    d. Watch the short video and write down your thoughts regarding the video on the Anthropocene (short reflection).

2. Give a "playlist" of resources such as readings, videos, audio, or other content delivery methods that provide students the content to work with.

- The playlist for students to explore and learn from at home.
    a. Read one webpage from the interactive online textbook: http://www.earthonlinemedia.com/ebooks/tpe_3e/earth_materials_structure/endogendogenous_and_exogenous_process.html
    b. Read the entire chapter from the interactive online textbook: http://www.earthonlinemedia.com/ebooks/tpe_3e/tectonics_landforms/outline.html
    c. Watch a short 3-minute video: https://www.youtube.com/watch?time_continue=173&v=fvgG-pxlobk
    d. Guide for developing a concept map: http://tutorials.istudy.psu.edu/conceptmaps/conceptmaps6.html

Exercises: Please complete by THE THIRD-CLASS SESSION.

- Give a method for students to submit their work online BEFORE the face to face class meeting. Google forms, Surveymonkey, and tools in your LMS will all work. Alternatively, give them instruction on what completed work to bring to class as an entry ticket.
- The submitted work should demonstrate students' mastery of the basic learning objectives.

    a. Students will post their short reflection discussing Anthropocene on a Blackboard discussion board, due at 11:59 PM the night before the class meeting.
        i. Reply to one classmate on the discussion board
    b. Students will bring their concept map to class as an entry ticket, to participation in group discussions, and a chance to update them before submitting them at the end of class.

Questions?

Give a way for students to get help.

- Students can email me with questions or see me during office hours.

ADVANCED PRACTICE

This is given for students to complete after the class meeting in which they work together.

Class: GEO 3510 – Geography of California
Date assigned: third class session
Date due: fourth class session
Time estimate to complete this assignment: 75-90 minutes

Learning Objectives

Advanced objectives

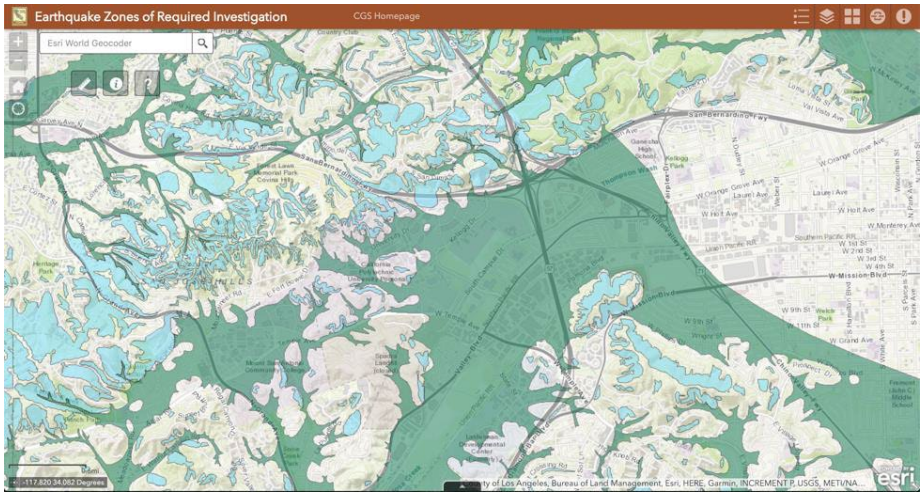
List 3-4 learning objectives that you expect students to need help mastering in class and after class.

1. To apply the concepts of the four perspectives that geographers focus on when looking at landforms.
2. To describe the three plate boundaries, its movement, and the type of landforms that develops from it.
3. To compare between major and minor fault lines and from plate boundaries.
4. To illustrate the different types of earthquakes, the movement involved, and how it impacts people in California.

Activities & deliverables

- Give detailed, action-oriented instructions for completing the assignment. Make sure to also include a reflective component.
- Describe what students should turn in, by when.

1. Visit the following link to assess the hazards in your neighborhood. (Activity)
    a. Maps.conservation.ca.gov/cgs/eqzapp/app



    b. Evaluate the hazards, is it a major or minor fault line, what kind of fault line, its impact, the importance of looking at the surrounding landforms, etc. (Apply the concepts learned in class to this assignment)

2. Take a screenshot of your neighborhood with roughly a 5-mile radius. (Activity)

3. Create an emergency plan for you and your loved ones (including your pets). A different emergency plan needs to be created for every different type of hazard (wildfire, earthquakes, liquefaction, floods, mudflow, landslides, etc.). Your plan needs to be detailed that includes every member of the household, emergency supplies, evacuation routes, meet up points, and other elements you need to consider for the neighborhood you reside in. (Activity)

4. Submit the screenshot of your neighborhood, an evaluation of the hazards, and your detailed emergency plan. (deliverables)

5. Due date: 11:59 PM the night before the fourth-class session.

Resources:

- Give a "playlist" of resources to help students complete the assignment.

Playlist of resources:

a. https://earthquake.usgs.gov/
b. maps.conservation.ca.gov/cgs/eqzapp/app
c. https://www.ready.gov/business/implementation/emergency
d. https://www.cdc.gov/niosh/docs/2004-101/emrgact/emrgact.pdf (CDC Emergency Action Plan Template)

Questions?

Give a way for students to get help.

- Students can email me with questions or see me during office hours.

Flipped IN-CLASS Lesson Plan Template

Topic or concept: California Landforms and the Processes Involved

Basic objectives for preparatory work:	Advanced objectives for classwork & after class work:
1. Students will be able to describe the geologic timeline and the age of Earth including the current epoch the Anthropocene. 2. Students will be able to explain how landforms change and what processes are involved. 3. Students will be able to distinguish between internal and external processes that shape landforms.	1. Explain the four perspectives geographers use to study landforms. 2. Describe the Wilson Cycle and supercontinents and explain where California is categorized within this process. 3. Explain the movements of plate tectonics and the two directions that California is moving towards. 4. Demonstrate how the landforms develop from the different processes.

	Time planned	Activity and rationale	Resources needed
Beginning of class period	15 mins	Share and discuss their concept maps with 2-3 other classmates to prep them for today's activity. Students should compare and contrast their maps and make any necessary changes before submitting at the end of class.	Their concept map homework assignment and something to write with.

	Time planned	Activity and rationale	Resources needed
Middle of period	20 mins	Mini-lecture based on Q&A that students have from the preparatory activities and on plate boundaries and earthquakes. Clarify misconceptions and offer more in-depth info on hazards.	Lecture prep/slides
Middle of period (use if needed)	30 mins	Continue the online discussion board with a think-pair-share activity on the Anthropocene and from today's lecture on hazards in California. Students will partner up with 3-4 people to discuss potential solutions for the hazards in California and what role the Anthropocene plays. Each group will share their solutions with the class by writing them on the white board.	White board and markers
End of period	10 mins	Write down two – three things they learned in class on the back of their concept map.	Paper and pen

Flipped AFTER CLASS Work Plan Template

Advanced learning objective	Activity and rationale	Instructions to students
1. To apply the concepts of the four perspectives that geographers focus on when looking at landforms. 2. To describe the three plate boundaries, its movement, and the type of landforms that develops from it. 3. To compare between major and minor fault lines and from plate boundaries. 4. To illustrate the different types of earthquakes, the movement involved, and how it impacts people in California.	Learning about California's landforms is vital as it is the land we live on and knowing the formations is importance in accessing its potential hazards. Students also need to be able to evaluate the exact land they reside in and the potential hazards posed for that area. The students will evaluate the hazards in their neighborhood based on the landforms and its formation by using given online resources. Once the students have determined the hazards, they will create an emergency plan for them.	1. Visit the following link to assess the hazards in your neighborhood. (Activity) a. Maps.conservation.ca.gov/cgs/eqzapp/app b. Evaluate the hazards, is it a major or minor fault line, what kind of fault line, its impact, the importance of looking at the surrounding landforms, etc. (Apply the concepts learned in class to this assignment) 2. Take a screenshot of your neighborhood with roughly a 5-mile radius. (Activity) 3. Create an emergency plan for you and your loved ones (including your pets). A different emergency plan needs to be created for every different type of hazard (wildfire, earthquakes, liquefaction, floods, mudflow, landslides, etc.). Your plan needs to be detailed that includes every member of the household, emergency supplies, evacuation routes, meet up points, and other elements you need to consider for the neighborhood you reside in. (Activity) 4. Submit the screenshot of your neighborhood, an evaluation of the hazards, and your detailed emergency plan. (deliverables) 5. Due date: 11:59 PM the night before the fourth-class session.