

Lesson Plan

Name: Jeffrey Ignall

School: P.S. 101Q

Grade: 4th

Unit : Science

Topic: Erosion

Teacher materials:

- White Board/Markers
- Copy of *Wedding of the Waters*, by Peter L. Bernstein
- Copy of *Erosion: Changing Earth's Surface*
- Additional books on erosion
- Writing Activities

Student materials:

- Pencils
- Science Notebook
- Additional books on erosion
- Choice of Writing Activity

Description of physical space (Where are the students? Where is the teacher? What is set up?)

- After clearing their desks and establishing good listening positions, students are called to the front of the room by groups.
- Teacher will use White Board for Modeling and Active Involvement (Together).
- Students return to their desks to complete their Writing Activity.
- Teacher circulates room to answer questions and gauge comprehension.
- Students return to front of the room to share their work.

Teaching Point/Goal: Students will be able to define erosion and explain how it affects land over time.

NYS Science Standard 4.2.1.:

- Students describe the relationships among air, water, and land on Earth.

Performance Indicators:

- Students will be able to define erosion.
- Students will complete a writing activity that demonstrates how erosion affects land over time.

Connection/Motivation:

- Write Teaching Point on White Board.
- Ask student to read the TP.
- Tell class that I wanted to learn more about the Erie Canal so I started reading a book about how it was planned and built.
- Show book, *Wedding of the Waters*, to class - read title and author.

Model(I try):

- Read small excerpt from *Wedding of the Waters* on the tremendous amount of trees that were cut down to build the canal.
- Explain that I researched the environmental impact of cutting down trees and found out that: 1) disrupts the local ecosystem because animals need to find new homes; and 2) cutting down trees creates can lead to soil erosion.
- Explain that we I wanted to learn more about erosion and thought we could explore it together as a class.

Active Involvement (We try):

- Create K-W-L chart on White Board with the class.
- Assess prior knowledge by asking students what they know about erosion.
- Write what they know about erosion under K.
- Ask what they'd like to learn and write under W. Sample questions for W(hat they'd like to learn): *What is erosion? What are some sources of erosion? How does erosion happen? What are some impacts of erosion?*
- Do Read Aloud of *Erosion: Changing Earth's Surface*. Tell students to think about the questions we created as I do the read aloud. They can take notes as we go along.
- Have students do a turn and talk with active listening in order to discuss what they learned about erosion from the book.
- Write student responses under L.
- See if there are any questions that weren't answered (students will be allowed to do more research independently using the internet and/or additional books that will be provided).
- All information will remain on White Board for student reference.

Independent/partner activity /group activity (You try):

- Tell students that they will be completing a writing activity and can choose one of three options: 1) a persuasive letter; 2) a poem and a picture; or 3) a non-fiction story.
- Distribute the Writing Activity to each student and provide a brief overview of each option.
- Explain that students who finish early should raise their hands for extra instruction.
- Give five minute warning (with 10 minutes remaining) and with five minutes remaining in lesson, ask students to stop their work so that we can share what we learned.

Plan for Differentiated Instruction/Activity:

- All learners will have the opportunity to do further research on erosion in order to complete their Writing Assignment (e.g., additional books on erosion and/or the internet).
- All learners will have the opportunity to choose the Writing Activity that best fits their learning style.
- Above standard learners who finish early will be given an opportunity to write a poem about the importance and beauty of trees.

Share/Closure:

- After the students have completed their Writing Activity, bring them back to the front of the room to share what they wrote.
- Put student exemplar(s) on SMART Board and have them read their letter.

Follow Up/Next Steps:

- For homework, students will be asked to discuss the environmental costs of industrial progress with a grown-up and write a two paragraph essay on two examples of such.
- In a follow up lesson, students will study the geographic features of rivers.

Assessment of Objectives:

- Students will be assessed on their ability to: (1) define erosion; and (2) explain how erosion affects land over time.

Name: _____

Date: _____

Erosion Activity - Choose ONE of the following three options and complete it on a separate piece of paper(s). In order to complete the activity, you may use the information that we wrote on the White Board as well as additional research from other erosion books that are around the room.

Option #1: A Persuasive Letter - Write a persuasive letter to DeWitt Clinton (the Governor of New York in the early 1800s) arguing against the building of the Erie Canal because of environmental issues. Construction of the canal began in 1807 so your letter should be dated in 1806. Identify who you are in your letter (for example, "concerned citizen" or "an environmentalist" or "lover of the earth"). Your letter should explain the environmental costs of cutting down so many trees. Also define erosion and how it could affect the land over time.

Option #2: A Poem and a Picture - Write a poem on erosion. Your poem should describe at 3 least types of erosion, be at least 6 lines long and have at least 3 rhymes. Draw and color a picture of one of the types of erosion from your poem.

Option #3: A Non-Fiction Story - Write a two paragraph story about erosion. The first paragraph should include a definition of erosion and a description of at least three types of erosion. In the second paragraph, explain whether you think erosion is good or bad and provide examples to support your opinion.