

Rising from the Dust: Learning about Natural Disasters Using the Novel, *Esperanza Rising*

Author	Amber S. Amaya
Grade Level	5
Duration	4 class periods

National Standards

GEOGRAPHY

Element 5: Environment and Society

14: How human actions modify the physical environment

15: How physical systems affect human systems

NEXT GENERATION OF SCIENCE STANDARDS

MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

AZ Standards

ELA

Reading

Key Ideas and Details

5.RI.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

5.RI.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text, based on specific information in the text.

Craft and Structure

5.RI.5 Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, and problem/solution) of events, ideas, concepts, or information in two or more texts.

Writing

5.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

MATHEMATICS

Measurement and Data

5.MD.A.1 Convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step, real-world problems.

SCIENCE

Life Science

5.L4U3.11 Obtain, evaluate, and communicate evidence about how natural and human-caused changes to habitats or climate can impact populations.

Arizona Social Science Standards

Human-environment interactions are essential aspects of human life in all societies.

5.G2.1 Describe how natural and human-caused changes to habitats or climate can impact our world.

Examining human population and movement helps individuals understand past, present, and future conditions on Earth's surface.

5.G3.1 Use key historical events with geographic tools to analyze the causes and effects of environmental and technological events on human settlements and migration.

Key concepts include but are not limited to consequences of territorial expansion on American Indians, the institution of slavery, the positive and negative impact of new technologies on the environment and the growth of cities, and the impact of transportation and infrastructure on settlement and migration

Global interconnections and spatial patterns are a necessary part of geographic reasoning.

5G4.1 Describe how economic activities, natural phenomena, and human-made events in one place or region are impacted by interactions with nearby and distant places or regions.



SIOP Elements		
Preparation Adapting content Linking to background Linking to past learning Strategies used	Scaffolding Modeling Guided practice Independent practice Comprehensible input	Grouping Option Whole class Small groups Partners Independent
Integrating Processes Reading Writing Speaking Listening	Application Hands on Meaningful Linked to objectives Promotes engagement	Assessment Individual Group Written Oral

Arizona English Language Proficiency Standards

Stage III

Reading

Standard 4: The student will analyze text for expression, enjoyment, and response to other related content areas.

B-7: identifying the main idea and two-to-three details from text.

B-10: identifying signal words in text that indicate cause/effect (e.g., as a result of, consequently, so that, because of, since).

B-12: identifying the cause and effect relationship between two related events in a literary selection.

Writing

Standard 1: The student will express his or her thinking and ideas in a variety of writing genres.

B-6: writing a variety of functional text that addresses the audience, stated purpose and context.

Overview

Extreme drought conditions occurred during 1930 and 1936 across the Great Plains. The crops died due to the lack of rain and the loose topsoil blew away during dust storms. More than a million acres of farmland was affected, and thousands of farmers lost their farms during the Dust Bowl. Migrant farmers moved west in search of farming jobs. They encountered many immigrant farmers in search of farming jobs as well.

Purpose

In this lesson, students will explore the causes and effects of a natural disaster. Students will record on a graphic organizer the causes and effects of a dust storm. Students then will work in small groups to apply what they learned using the novel, *Esperanza Rising*. The end product will be a cause-and-effect brochure explaining an arid zone, a drought, and the

Dust Bowl. This lesson includes strategies for diverse learners (ELLs).

Key Vocabulary

drought: a long period of time when there is very little rain or snow

erosion: wearing away of the earth by wind, water, waves, or glaciers

grasslands: land with grass growing on it

plains: large areas of flat or mostly flat land

agriculture: growing food or needed materials

topsoil: the upper part of the soil that is very good for growing food

arid: a place without much rain

Materials

- Class set of *Esperanza Rising* by Pam Muñoz Ryan



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- What was the Worst Environmental Disaster in the United States?
- Dryland Climates of North America map
- Setting the Scene PowerPoint
- Looking at the Dust Bowl as Social Scientist PowerPoint
- Vocabulary Cards
- Construction paper
- Scissors
- Glue
- Colored pencils, markers, and/or crayons
- Cause & Effect Graphic Organizer
- Cause & Effect Answer Key
- Physical Regions of the US map
- Living with Natural Disasters Worksheet (Brochure Directions and Scoring Guide)
- Student Example of Brochure
- Vocabulary Test and Answer Key

Objectives

The student will be able to:

1. identify the causes and effects of drought and dust storms
2. use math to calculate square miles on a map
3. explain an arid zone, a drought, and the Dust Bowl.

Procedures

Notes to Teacher:

1. *SESSION ONE activities could begin prior to reading Chapters 1-9 of Esperanza Rising.*
2. *Background Information on the Great Depression and the Dust Bowl can be found at PBS: "Surviving the Dust Bowl" (52 min. video) <http://www.pbs.org/wgbh/americanexperience/films/dustbowl/>*
3. *Prerequisite Skills: Students can use map scale and determine square miles of area by using shapes such as rectangles and triangles.*

SESSION ONE

Engage:

1. Write the vocabulary words listed in Key Vocabulary on the board. Have students give definitions to the words. Then share the vocabulary cards with students. **(Preparation: Linking to past learning)**
2. Ask students, "Who has been in a dust storm?" **(Preparation: Linking to background)**

3. Show students a clip from the film, "Uncovering the Dust Bowl" from PBS.org:

<http://video.pbs.org/video/2247092322/>

(Application: Promotes engagement)

Explore:

1. Write the following questions on the board:
 - Is a dust storm a natural disaster?
 - What are the causes of a dust storm?
 - What are the effects of a dust storm?
2. As a whole group, discuss the answers to these questions. **(Grouping Option: Whole class)**
3. If students have read Chapters 1-9, then proceed with this part: Ask students to identify what sentences and/or paragraphs the author used in Chapter 9 of *Esperanza Rising* to describe the effects of the Dust Storm on the farm and the people (pages 147-153). **(Integrating Processes: Reading, Listening)**

SESSION TWO

Explain:

1. Print off the article, "What was the Worst Environmental Disaster in the United States?" from About.com Environmental Issues <http://environment.about.com/od/environmentalevents/f/dustbowl.htm>
2. Have students analyze the Dryland Climates of North America map <https://static.sustainability.asu.edu/giosMS/uploads/sites/27/2018/11/northamericameigs7-5-map-optim.jpg> **(Integrating Processes: Reading)**
3. With partners, have students record their findings on the Cause & Effect Graphic Organizer. (Encourage students to explain the concepts of a drought and define vocabulary in their own words.) **(Integrating Processes: Writing) (Grouping Option: Partners)**
4. Model one or two of the answers on the graphic organizers, so students understand how to complete the assignment. **(Scaffolding: Modeling)**

SESSION THREE

Elaborate:

1. Show one or both of the PowerPoints (Setting the Scene and/or Looking at The Dust Bowl as a Social Scientist). **(Application: Promotes engagement)**
2. Have students color and label (with their state names) the region affected by the Dust Bowl on their Physical Regions of the US map. **(Application: Hands-on)**
3. Review how to use the map scale, how to convert inches to miles and how to determine area. Assign



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the math problem: Determine approximately how many square miles of the United States were affected by the Dust Bowl. Model part of the math problem for them to get them started by showing how dividing the area into rectangles and triangles, they can calculate the square miles. (**Scaffolding: Modeling**)

SESSION FOUR

Evaluate:

1. Distribute the Living with Natural Disasters Worksheet. Ask students, "What could people living in drought prone areas do to prepare for dust storms? What could people do to prevent dust storms from occurring or being so damaging?" Emphasize previous session's information to propose solutions to people who live in environments that are susceptible to droughts. (**Grouping Option: Whole class**)
2. Place students into groups of three. (The groups can be larger if you need to accommodate the lesson for students with learning disabilities or ELL students.) Each group decides who will do which of the three parts (Drought, Arid Zones, and Dust Bowl). (**Grouping Option: Small group**)
3. Instruct students to write an expository summary for the brochure about their section. When finished, students need to illustrate their section, and write the title and authors' names on the front cover. (**Scaffolding: Comprehensible Input**)
4. Show students one of the student samples provided in this lesson so they can visualize the finished product. (**Scaffolding: Modeling**)

Assessment

Students will score:

- For **Reading**, **Geography**, and **Science** grades, 80% or higher on the Cause & Effect Graphic Organizer and the Living with Natural Disasters Worksheet questions to be considered mastery.
- For a **Geography** grade, 100% on the map coloring and labeling to be considered mastery.
- For a **Reading** grade, 80% or higher on Vocabulary Test.
- For a **Writing** grade, a 4 or higher on the 6 Traits Writing Rubric in the area of Ideas and Content to be considered mastery.

Extensions

- Students can research drought tolerant vegetation or options for bringing more water to drought areas.
- Students can go on a field trip to the Pueblo Grande Museum to learn about ancient cultures and how they survived in the rough Arizona climate.
- Play "I Have, Who Has?" Vocabulary Game for the novel, *Esperanza Rising* by Pam Muñoz Ryan. These vocabulary words can be used for a quiz for your English proficient students.

Sources

Dryland Climates of North America map from Meig's Maps of Arid and Semiarid Regions
<https://static.sustainability.asu.edu/giosMS-uploads/sites/27/2018/11/northamericameigs7-5-map-optim.jpg>

Physical Regions of the United States map from Arizona Geographic Alliance
<http://geoalliance.asu.edu/azga/>

Muñoz Ryan, Pam. *Esperanza Rising*. New York: Scholastic Inc., 2000. Print.

Setting the Scene PowerPoint from Arizona Geographic Alliance lesson called "From the Dust Bowl to Sunny California" found at
<http://geoalliance.asu.edu/azga/dustbowl/>

Vocabulary Game, "I Have, Who Has?"
<http://buildingamerica.pbworks.com/w/page/36541223/Esperanza%20Rising%20Vocabulary%20Activities>

6 Traits Writing Rubric used by Mesa Public Schools
http://www.mpsaz.org/bskills/secondary/write_sec/rubrics/mps-6-traits/files/3-6_rubric.pdf

What was the Worst Environmental Disaster in the United States?" from About.com
<http://environment.about.com/od/environmentalevents/f/dustbowl.htm>



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