

Yale 2017 PIER Summer Institute: Africa and the World

Title of Lesson: Is change always a good thing?

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Subject Area(s): Social Studies (Geography)

Grade Level(s): 5th

Time Allotment: 4 sessions (1.5 hours each)

Lesson Description: *Include- why is this important for students to know?*

Throughout this lesson, students reflect and understand how the environment has been modified, and how people have been adapted to it. Using the African film Pumzi, students acknowledge the importance of making informed decisions to save the environment.

Learning Context: *How does this lesson/unit fit within the context of the the larger unit or other units?*

This lesson can be part of a Science unit about renewable energy resources, as a way to think critically about the importance of making informed decisions and build a healthy relationship with nature and their environment.

For English Language Arts, students use creative writing as a way to analyze the impact of their decisions, especially when those decisions affect others.

Students will use technology to research and make presentations.

Compelling Question(s): *What question(s) will guide student inquiry during the lesson/unit?*

- *How humans have adapted to the environment?*
- *How humans have modified the environment?*
- *How do our decisions impact the environment?*
- *What do you think about our actions modifying the environment?*
- *What solutions would you suggest to preserve the environment?*

Content Standards: *What standards are addressed through the teaching of this lesson/unit?*

§113.16. Social Studies, Grade 5, Beginning with School Year 2011-2012.

(10) Geography. The student understands how people adapt to and modify their environment. The student is expected to:

- A) describe how and why people have adapted to and modified their environment in the United States, past and present, such as the use of human resources to meet basic needs;*

B) and analyze the positive and negative consequences of human modification of the environment in the United States, past and present.

Lesson Objectives/Learning Intentions:

Students understand how their everyday decisions make a huge impact on the environment, proposing new alternatives to make better choices.

Lesson Vocabulary:

Content Vocabulary	Skill/Process Vocabulary
Environment Human Basic needs Adaptation Modification Positive and negative consequences Decisions	Observe Understand Explain Analyze Question Compare Describe Infer

Supporting Questions: These questions are intended to contribute knowledge and insights to the inquiry behind the compelling question. These questions should provide students with the opportunity to explore content essential to advance the inquiry. Supporting questions should also serve to support development of formative assessment tasks (progress monitoring) and teacher or student selection of resources/teaching materials.

Supporting Questions 1	Supporting Questions 2	Supporting Questions 3
Session 1: Adaptations/Modifications to the environment <ul style="list-style-type: none"> What differences do you find between a person who lives in the desert, and another who lives in the Arctic? What kinds of clothes do you use during the summer? What kinds of clothes do you wear during the winter? What happens if you 	Session 2: Consequences of modifying the environment <ul style="list-style-type: none"> What is the main idea of the movie (Pumzi)? What happened before the moment that is portrayed in the movie? (Even though it is a science fiction movie, students can think about the causes of this dystopian scenario). Could this have happened if the circumstances were 	Session 3: Creating solutions <ul style="list-style-type: none"> What is your carbon footprint? What changes can we make in our daily habits at home in order to save the environment? What changes can we make in our daily habits in school to save the environment?

<p><i>expose your skin to the Sun for several minutes/hours?</i></p> <ul style="list-style-type: none"> • <i>What happens to your eyes when you are in a dark room?</i> • <i>What happens when somebody turns on the light of the room?</i> • <i>How do you maintain a comfortable room temperature at home?</i> • <i>What differences do you perceive from these pictures (UTEP and Pepperdine examples)</i> • <i>What are the differences between adapting to the environment and modifying it?</i> • <i>Do you know about any past or recent modifications of the environment in your community?</i> 	<p><i>different?</i></p> <ul style="list-style-type: none"> • <i>What would you infer from the movie?</i> • <i>What are the main effects (positive and negative) of modifying the environment?</i> 	
<p>Formative Assessment</p>	<p>Formative Assessment</p>	<p>Formative Assessment</p>
<ul style="list-style-type: none"> • Students will perform a small research about how and why humans have modified the environment. 	<ul style="list-style-type: none"> • Writing activity where the students imagine what happened before the moment portrayed in the movie. 	<ul style="list-style-type: none"> • Plan to make small changes in their everyday habits.
<p>Materials/Resources</p>	<p>Materials/Resources</p>	<p>Materials/Resources</p>
<p>Materials:</p> <ul style="list-style-type: none"> • Computers/iPads • Projector • Pencils • Notebooks • Markers • White Kraft paper <p>Resources:</p> <ul style="list-style-type: none"> • Bedouins clothing image: http://www.touregypt.net/featurestories/bedouins 	<p>Materials:</p> <ul style="list-style-type: none"> • Computers/iPads • Projector • Pencils • Notebooks <p>Resources:</p> <p>Pumzi: https://vimeo.com/46891859</p>	<p>Materials:</p> <ul style="list-style-type: none"> • Computers/iPads • Projector • Pencils • Notebooks <p>Resources:</p> <p>Kids carbon calculator: https://www.treesforlife.org.au/kids-carbon-calculator?PHPSESSID=97f197</p>

<p>.htm</p> <ul style="list-style-type: none"> • Inuits clothing image: https://www.emaze.com/@AILFIZZZ/Inuits-by-Ernesto • Kids winter clothes: https://kidsclotheszone.com/image/kids-winter-clothes-5013/ • Kids beach clothes: http://www.sheknows.com/living/articles/809485/fun-and-affordable-kids-beach-wear • Pepperdine before and after: http://cargocollective.com/digitalpepperdine/Pepperdine-in-Malibu-Before-and-After • UTEP Arroyos: http://encyclopedia.utep.edu/index.php/Arroyos 		<p>f4fef8a8cb322ab8867f24e5c1</p>
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Summative Assessment/Performance Task:

For the summative assessment the students will create a PowerPoint or [Powtoon](#) presentation including the following slides:

- Human adaptations to the environment
- Human modifications of the environment
- Human impact on the environment
- Smart choices to save our planet at home
- Smart choices to save the Earth in school
- References

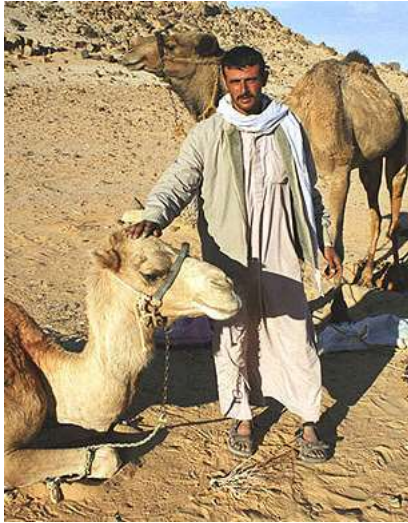
The elements considered for this presentation will include:

- Information is accurate and concise (1 point each content slide. 5 points in total for the content).
- Includes references at the end of the presentation. (1 point)
- Images. (1 point)
- Oral presentation. (In case there's not enough time for presentations, students will record a voiceover if they created a PowerPoint) (3 points).

Lesson Activities:

Session 1

- Show pictures of human adaptations to the environment (clothing) Ask students what do they have in common? What are their differences?



- Show the following pictures and ask: What do you observe in these pictures?



- Show the article about [UTEP Arroyos](#). Ask students: What are the modifications to the environment at UTEP.
- Students create a comparative table (using white kraft paper and markers) where they compare the differences between adapting to the environment and modifying it.
- Reflect about our everyday actions that affect the environment, and how people have modified the environment. In groups of 3 students, research about human-caused environmental change, and reflect about the positive and negative effects.
- Homework: Ask their family members about human modifications of the local environment.

Session 2

- Discuss the homework with the students.
- Students watch the movie Pumzi. Discuss in pairs their insights about the movie, share their thoughts with the rest of the class.
- Ask students to imagine and write or create a graphic novel how was the life of the protagonist before the moment that is portrayed in the movie.
- Students share their work with the rest of the class.
- Students will answer the following questions: *Could this have happened (in the movie) if the circumstances were different?*
- *What are the main effects (positive and negative) when humans modify the environment?*

Session 3

- Ask students to write in detail about their daily habits, they will underline with red if they use electric energy, blue if they use water, orange if they use any type of fuel (car, cooking), and green if they contribute to save the environment.

- Students [calculate their carbon footprint](#), compare their results with their peers.
- In groups of three students they make a plan, write about the little changes they can make in their habits at home or in the classroom.
- Students follow the plan for several days and register their observations. (For example they can choose to turn off the lights while they are not in the room, they can measure the energy consumption before and after, refer to: <https://www.saveonenergy.com/energy-consumption/>).
- Students present to the rest of the class the benefits of making smart choices about energy, water, and other resources consumption.

Session 4 “Putting all together”

- Explain the summative assessment to the students (Please refer to the summative assessment section).
- Students prepare their final presentations in PowerPoint or [Powtoon](#)
- If time permits, students present their work to the rest of the class.