

Biomes: Research and present your biome on Pinterest

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Grade Level (Req.): 11/12th	Content Area (Req.): Environmental Science	Unit (Opt.): Biomes
<p>Connections to Other Disciplines (Opt.):</p> <ul style="list-style-type: none"> <li>• 21st Century Skills: use of technology</li> <li>• Use of social media for a creative and education purpose</li> <li>•</li> </ul>		
Time Frame (Req.): 4-5 class periods/days	Goal (Req.): Research one biome and identify all of the biotic and abiotic features.	
	Objective (Req.): Students should be able to identify food webs, as well as all the other biotic and abiotic features in their assigned biome and organize their informational facts and visual aids into a classroom Pinterest board that all can access and learn from one another.	
<p>Materials Needed (Req.):</p> <p>Most of the research and presentation will be accomplished by using their computers and the internet.</p> <ul style="list-style-type: none"> <li>• 1 to 1 laptop computers</li> <li>• Internet connection</li> </ul> <p>National Geographic video: Planet Earth</p>	<p>New Vocabulary (Opt.):</p> <ul style="list-style-type: none"> <li>• Biome, niche, habitat, biotic, abiotic, photosynthesis, survive, food chain, food web,</li> </ul> <p>Pinterest, board, pins</p>	
<p>Anticipatory Set/Introduction [Inquiry Question is required] (Req.): (After viewing a video clip recap of numerous biomes that are represented in the National Geographic video: Planet Earth) 1. What biomes are represented? 2. In which biome do you live?</p>		
Instructional Sequence/Procedure (Req.):		

1. To begin the lesson on biomes, students will watch a video clip from Planet Earth and will answer the anticipatory set question.
2. The teacher will then take the students through a short lecture that includes explanation of biotic and abiotic features, the differences between a food chain and a food web, and other key vocabulary associated with biomes.
3. The next portion of the lesson will begin by looking at examples of how other students have used Pinterest to show a collection of facts, photos, and relative geographical information.
4. Each student will then be assigned a biome to research and create a Pinterest board for on the classroom page. The remainder of the first day will be spent looking up the location map of their biome as their first “pin”.
5. The students will spend the next two class periods working to add information on their biomes to their Pinterest board. Their board should include:

-A location of the biome on a world map

-A description or representation of physical features of their biome: climate, terrain (i.e. mountains), precipitation

- A description or representation of a prominent food chain, and food web in their biome

- Photos of common plants and animals found in their biome

- Identification of any endangered species from their biome

- Description or representation of the impact of humans on the biome; specifically regarding the endangered species

6. The last class period or two will be reserved to allow students to present their board to the rest of the class. Students will be asked to describe each of the six elements (step 5) included on their Pinterest board to the class.

Formative Evaluation (Req.): Submit your rough draft on day 3; I will give positive and constructive feedback on progress made so far. Resources not cited in the usual way...discuss

Assessment (Req.): Each student submission must include 40 “pins” that demonstrates what the student has learned about their biome. The rubric shall evaluate the inclusion of the

<p>the difference between plagiarism and this form of social media sharing.</p>	<p>required elements, creativity, and overall knowledge demonstrated.</p>
<p>Iowa Core Curriculum Standards Used (Req.):</p> <ul style="list-style-type: none"> <li>• Iowa core: S.9-12.LS.12- Understand and apply knowledge of the interdependence of organisms.</li> <li>• Iowa core: S. 9-12.LS.16- Understand and apply knowledge of the interdependence of matter, energy, and organization of living systems.</li> <li>• Iowa core: S.9-12.LS.16- Understand and apply the knowledge that the sun provides the original source of energy for life.</li> <li>• Iowa core: S.9-12-LS.14- Interrelationships and interdependency lead to long term stable systems.</li> </ul>	
<p>Common Core Curriculum Standards Used (Opt.):</p> <p>Misc Curriculum standards:</p> <ul style="list-style-type: none"> <li>• S09-12.CG.03.02- food webs and food chains</li> <li>• S09-12.CH.03.03- photosynthesis and how the sun is our ultimate source of energy</li> <li>• S09-12.LS.03.03a. plants capture the suns' energy and uses it to form organic compounds (which humans need to complete their energy needs.)</li> <li>•</li> </ul>	
<p>NGS Standards Used (Req.):</p> <ul style="list-style-type: none"> <li>• NGS 8.2A- geographic distribution of ecosystems; 8.2B- evaluate ecosystems in terms of biodiversity and productivity.</li> <li>• NGS 15.B- ....adaptation strategies in response to the restrictions imposed on human systems by physical systems by identifying world locations that have vulnerable environmental conditions.</li> </ul>	

<p>Five Themes of Geography Used (Req.):</p> <p>Interactions: Environmental impact on humans and human impact on environment</p> <ul style="list-style-type: none"> <li>• Region: United by similar conditions</li> <li>• Location: Latitude and Longitude</li> <li>• Place: Physical Features</li> <li>•</li> </ul>	<p>School District Standards and Benchmarks (Opt.):</p> <ul style="list-style-type: none"> <li>• We use the Misic Standards and Benchmarks found in my Curriculum Manager</li> <li>•</li> <li>•</li> </ul>
<p>21<sup>st</sup> Century Universal Constructs (Opt.): Use of internet to research the physical features of the chosen biome, create a board in Pinterest-including 40 pins. And employability skills: meeting a deadline and completing a task that fulfills all the required elements.</p>	
<p>Other Disciplinary Standards (Opt.):</p>	
<p>Other Essential Information (Opt.):</p>	
<p>Other Resources (Opt.):</p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	