



Unit 3A: Biological Diversity (three weeks total) Oct. 13- Nov. 3 / Mar. 15- Apr. 2

Standards: SEV1

Obtain, evaluate, and communicate information to investigate the flow of energy and cycling of matter within an ecosystem.

- d. Evaluate claims, evidence, and reasoning of the relationship between the physical factors (e.g., insolation, proximity to coastline, topography) and organismal adaptations within terrestrial biomes.
- e. Plan and carry out an investigation of how chemical and physical properties impact aquatic biomes in Georgia

Learning Goals:

1. I can define biodiversity.
2. I can define biomass.
3. I can compare and contrast primary succession and secondary succession.
4. I can deduce the effect on ecosystem resilience when an organism disappears.
5. I can construct an argument to predict changes in biomass, biodiversity, and complexity within ecosystems, in terms of ecological succession.

Essential Questions:

1. What is biodiversity?
2. What is biomass?
3. How can biomass increase?
4. What is primary succession?
5. What is secondary succession?
6. Give an example of primary succession.
7. What is resilience and how does it apply to ecosystems?

Activities:



Videos: Succession

<https://www.youtube.com/watch?v=8ceDE01iWLE>

<https://www.youtube.com/watch?v=7TjGwIQszUU>

***The Urban Game: Sustainability Project:
Formative Assessment Oct.16 / Mar.18***

PowerPoint Presentation:

<https://www.birdvilleschools.net/cms/lib/TX01000797/Centricity/Domain/6027/Copy%20of%20The%20Urban%20Game%20for%20WHAP%20Teachers.pdf>



Project:

https://www.google.com/search?q=the+urban+game+drawing&source=lmns&bih=576&biw=1366&rlz=1C1GCEV_enUS860US860&safe=active&hl=en&sa=X&ved=2ahUKEwjsk9TgnYfrAhULQFMKHVCuCEoQAUoAHoECAEQAA#



***Biodiversity Project-based 2
Explore your backyard! Formative
Assessment Oct. 23 / Mar. 25***

<https://study.com/academy/lesson/biodiversity-activities-games.html#lesson>

Unit 3B: Biomes

Standards: SEV2

***Obtain, evaluate, and communicate
information to construct explanations of
stability and change in Earth's***

ecosystems.

c. Construct an argument to predict changes in biomass, biodiversity, and complexity within ecosystems, in terms of ecological succession.

d. Construct an argument to support a claim about the value of biodiversity in ecosystem resilience including keystone, invasive, native, endemic, indicator, and endangered species.

Learning Goals:

1. **I can** construct climatograms. I can identify major terrestrial biomes. (SEV2.c)
2. **I can** describe the major aquatic or terrestrial biomes.
3. I can explain how human involvement and disruption of these biomes can have a long term impact on the environment.(SEV2.d)
4. **I can** describe how biomes impact biodiversity.
5. I can explain why some biomes have been intensely exploited. (SEV2.c)

Essential Questions:

1. What is a biome and how are they characterized?
2. What are the abiotic and biotic characteristics of the eight major biomes of the world?
3. How do freshwater and marine ecosystems differ?
4. What are some threats to freshwater and marine organisms?
5. What are some threats to terrestrial organisms?



*Biome Brochure Research
Project: Formative Assessment
Oct. 29/ Mar. 31*

1. <https://www.cusd80.com/cms/lib6/AZ01001175/Centricity/Domain/7319/Biome%20Brochure%20Research%20Project%202016.pdf>

2. <https://lhsblogs.typepad.com/files/biome-travel-catalog-research-project-mg.pdf>

3. <https://cpb-ca-c1.wpmucdn.com/blogs.winnipegssd.ca/dist/f/373/files/2017/09/Biomes-Worksheet-2mng6jc.pdf>

Biome Information: <https://ucmp.berkeley.edu/exhibits/biomes/index.php>
<http://kids.nceas.ucsb.edu/biomes/>

[University of California Museum of Paleontology - Biome Information](#)
[Missouri Botanical Garden WebSite - Lots of Information on Biomes](#)
[Blue Planet Biomes - Great Website for Research](#)

Biodiversity Video:

<https://www.youtube.com/watch?v=QKIMS0hVJdc>

Biomes Webquest Assignment:

<https://www.bhpsnj.org/cms/lib5/NJ01001806/Centricity/Domain/808/BiomeWebquest.pdf>

Summative Assessment on Nov. 5 / Apr. 1

