

Teacher's Guide

Video Podcast: Restoring a Wetland Ecosystem

Southwest Florida Water Management District

Grade 7

This teacher's guide supports the SWFWMD video podcast episode *Restoring a Wetland Ecosystem*, available at WaterMatters.org/Podcasts. This guide includes Florida standards, Common Core Standards, vocabulary, suggested activities and links to additional resources. Students will need computer and internet access for this lesson.

Lesson Time: Approximately 2–2.5 hours (divided among class periods)

Objectives: Students will discuss impacts humans have had on earth — on water resources most specifically — and how these impacts could create limiting factors in an environment. Students will select a possible limiting factor and create a photo essay to depict how the growth, distribution or population of a native species is affected by the limiting factor.

Vocabulary:

Ecosystem: a biological community of interacting organisms and their physical environment

Limiting factors: anything that controls the growth, distribution, or population of living things

Restoration: returning a natural habitat to its previous condition

Wetland: land that is wet all, or part, of the year and supports plants adapted to wet soil and water level changes

Lesson

Engage:

(15 minutes) Prior to watching the podcast, pose the following essential question to your students: How does water — its presence and absence — affect an ecosystem?

Watch the podcast. Review the vocabulary terms and ask aloud the following questions to activate prior knowledge:

What are limiting factors?

How can human actions create limiting factors in an environment?

How is water a limiting factor?

Describe the value of wetlands?

Encourage discussion on the impacts humans have on earth — on water resources most specifically — and how these impacts could create limiting factors in an environment.

Explore/Explain:

(60-90 minutes) Share the sample photo essay provided with students. Discuss how the combination of text and photos emphasizes the main point and helps the audience to understand the information presented.

Instruct students to select a possible limiting factor and create a photo essay to depict how the growth, distribution or population of a native species is affected by the limiting factor. The following software could be used to create the photo essay: Word, PowerPoint, iBooks Author, Photo Story, iMovie, Moviemaker, or other similar software. This activity can be done individually or in small groups.

Allow students to conduct research online or using other sources. Provide the *ClipPix* and *ClipVideo* links below for students to access photos. Class time could be used for a photo walk if your campus has natural habitats nearby. You can also encourage students to take their own photos around school or for homework.

Extend:

(30 minutes) Ask students (or groups) to present their photo essays to the class, or publish the photo essays to a class website and ask students to review other classmate's photo essays.

Evaluate:

Review each photo essay to evaluate if students understand the concept of limiting factors and if students have clearly presented their understanding.

Additional Links

WaterMatters.org/Publications/Files/Waterweb_Wetlands.pdf

WaterMatters.org/Recreation/Areas/CircleBBarReserve.html

<http://etc.usf.edu/clippix/pictures/restoring-a-wetland-ecosystem/>

<http://etc.usf.edu/clipvideo/galleries/water-as-a-limiting-factor/>

Standards

Next Generation Sunshine State Standards:

SC.7.E.6.6: Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.

SC.7.L.17.3: Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.

Common Core State Standards:

[CCSS.ELA-Literacy.SL.7.1](#) Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.

[CCSS.ELA-Literacy.SL.7.2](#) Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.

[CCSS.ELA-Literacy.SL.7.4](#) Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.

[CCSS.ELA-Literacy.SL.7.5](#) Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

[CCSS.ELA-Literacy.L.7.4](#) Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 7 reading and content*, choosing flexibly from a range of strategies.

[CCSS.ELA-Literacy.L.7.6](#) Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

[CCSS.ELA-Literacy.W.7.2](#) Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

[CCSS.ELA-Literacy.W.7.4](#) Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

[CCSS.ELA-Literacy.W.7.6](#) Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.

[CCSS.ELA-Literacy.W.7.8](#) Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

[CCSS.ELA-Literacy.RI.7.1](#) Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.