

Example 2: Grade 9 Biology for English Learners

SPBL Unit Plan		
Stage 1: Learning Intentions (a Major Concept for the Unit and a CASEL Competency)		
<p>1. Content learning intention: I can apply my understanding of ecosystem dynamics to create a proposal for the protection and conservation of an endangered species (HS-LS1-5.6.7, HS-LS2-1–8, HS-LS4-5.6).</p> <p>2. Language learning intention: I can use objective and evaluative language to construct an evidence-based scientific solution (ELD-SC.9.12).</p> <p>3. SEL learning intention (responsible decision making): I can consider how my personal behavior impacts the environment and demonstrate an ability to make caring and constructive choices for the well-being of Earth’s inhabitants.</p>		
Stage 2: Success Criteria (Daily Learning Goals)		
<i>You could have multiple goals, written without context or specificity.</i>		
<p>Surface-Level Success Criteria for Content</p> <p>I can define key terms such as <i>ecology, ecosystem, trophic cascade, limiting factor, endangered, and biodiversity.</i></p>	<p>Deep-Level Success Criteria for Content</p> <p>I can explain how human activities disrupt the flow of energy or the cycling of matter in ecosystems.</p>	<p>Transfer-Level Success Criteria for Content</p> <p>I can apply my knowledge of ecological principles to current anthropogenic environmental issues.</p>
<p>Surface-Level Success Criteria for Language</p> <p>I can paraphrase the central ideas of multiple sources using a variety of linguistic structures.</p>	<p>Deep-Level Success Criteria for Language</p> <p>I can use clauses to link claims with evidence and reasoning.</p>	<p>Transfer-Level Success Criteria for Language</p> <p>I can ask and answer questions to theorize, clarify, and refine solutions.</p>
<p>Surface-Level Success Criteria for SEL</p> <p>I can describe how human activities impact Earth’s environment.</p>	<p>Deep-Level Success Criteria for SEL</p> <p>I can evaluate my role in environmental problems.</p>	<p>Transfer-Level Success Criteria for SEL</p> <p>I can present personal solutions to collective environmental problems.</p>
Stage 3: Driving Question (Written at the Transfer Level)		
<p>Driving question: To what extent can we reduce our impact on the environment?</p> <p>Authentic context: Students will investigate the components of a healthy ecosystem and evaluate how their own actions affect the environment. Acting as environmental scientists, students will propose a research-based personal solution to a collective environmental issue.</p>		

Stage 4: Tasks (Specific Strategies and Activities)		
<p>Surface-Level Content Tasks</p> <p>Reading: Summarize key ideas about Earth’s biodiversity using infographics.</p> <p>English learner (EL) support: Modeling</p> <p>Writing: Organize feeding relationships for an ecosystem into a food web.</p> <p>EL support: Native language partner</p> <p>Speaking: Introduce an endangered species to the class.</p> <p>EL support: Sentence starters</p>	<p>Deep-Level Content Tasks</p> <p>Reading: Analyze the role of humans in trophic cascades using an article.</p> <p>EL support: Reciprocal teaching</p> <p>Writing: Compare and contrast the characteristics of endangered species.</p> <p>EL support: Report frame</p> <p>Speaking: Prioritize the conservation efforts for several endangered species.</p> <p>EL support: Talk-moves sentence stems</p>	<p>Transfer-Level Content Tasks</p> <p>Reading: Research the effects of human activities on Earth’s biomes.</p> <p>EL support: Graphic organizer</p> <p>Writing: Write a persuasive letter lobbying for protection of an endangered species.</p> <p>EL support: Writing checklist</p> <p>Speaking: Present a zoo exhibit proposal for an endangered species to a target audience.</p> <p>EL support: <i>Who, what, when, where, why, and how</i> prompts</p>
<p>Surface-Level SEL Tasks</p> <p>Reading: Read the poem “Earthrise” by Amanda Gorman (Sierra Club, 2021).</p> <p>EL support: Video of the poem read aloud (Climate Reality, 2018)</p> <p>Writing: Create a concept map showing connections between personal activities and global environmental issues.</p> <p>EL support: Word bank</p> <p>Speaking: Discuss the value of biodiversity and healthy ecosystems in small groups.</p> <p>EL support: Labeled diagram</p>	<p>Deep-Level SEL Tasks</p> <p>Reading: Read short profiles about teenage environmental activists.</p> <p>EL support: Graphic organizer</p> <p>Writing: Reflect on a personal ecological footprint calculation.</p> <p>EL support: Optional writing prompts</p> <p>Speaking: Engage in World Café conversations on the Power of One philosophy of change.</p> <p>EL support: Talk-moves sentence stems</p>	<p>Transfer-Level SEL Tasks</p> <p>Reading: Review peer proposals and provide feedback focused on human impacts and conservation solutions.</p> <p>EL support: Peer feedback checklist</p> <p>Writing: Focus on connecting protection and conservation of an endangered species to the collective well-being of Earth’s environment and inhabitants.</p> <p>EL support: Collaborative concept map</p> <p>Speaking: Present a proposal with a focus on a personal solution to a collective environmental issue.</p> <p>EL support: <i>Who, what, when, where, why and how</i> notecards</p>

Stage 5: Entry Event

Students will participate in a field trip to the local zoo. Students will make observations and read signage regarding the recurring themes of the unit: biodiversity, human impacts, and conservation. Students will record thoughts, patterns, and details about the animals at the zoo using a one-page organizer. Following the field trip, students will choose one endangered species to focus on throughout the unit.

Source: © 2021 by Kara House. Used with permission; Climate Reality. (2018, December 4). 24 hours of reality: “Earthrise” by Amanda Gorman [Video]. Accessed at www.youtube.com/watch?v=xwOv8RLmo on October 8, 2021; Sierra Club. (2021). Earthrise poem by Amanda Gorman. Accessed at www.sierraclub.org/los-padres/blog/2021/02/earthrise-poem-amanda-gorman on January 10, 2022.

Source for standards: Indiana Department of Education. (2016). Biology science standards. Indianapolis, IN: Author. Accessed at www.in.gov/doe/files/indiana-biology-standards-2016-41116.pdf on October 7, 2021; WIDA. (2020). WIDA English language development standards framework, 2020 edition: Kindergarten–grade 12. Accessed at <https://wida.wisc.edu/sites/default/files/resource/WIDA-ELD-Standards-Framework-2020-Edition-Grades-9-12.pdf> on October 7, 2021.