

Green Eggs and Sand – Module Three

Share the Beach – Upper Elementary, Middle School, High School

Next Generation Science Standards:

- 3-LS1-1 – Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
- 3-LS4-3 – Construct an argument with evidence that in a particular habitat some organisms survive well, some survive less well, and some cannot survive at all.
- 5-ESS3-1 – Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.
- 3-5-ETS1-2 – Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
- MS-LS.1-4 – Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors... affect the probability of successful reproduction.
- MS-LS1-5 – Construct a scientific explanation based on evidence for how environmental... factors influence the growth of organisms.
- MS-LS2-4 – Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
- MS-LS2-5 – Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
- MS-ETS1-2 – Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.
- HS-LS2-7 – Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

Common Core State Standards - None

Environmental Literacy:

- 1.A.1 - Identify an environmental issue
- 1.A.3 – Given a specific issue, communicate the issue, the stakeholders involved, and the stakeholders’ beliefs and values
- 4.B.1 – Analyze the growth or decline of populations and identify a variety of responsible factors.
- 5.A.2 – Analyze the effects of human activities that deliberately or inadvertently alter the equilibrium of natural processes.

Wanted: Dead and Alive – Middle School, High School

Next Generation Science Standards:

- MS-LS1-5 – Construct a scientific explanation based on evidence for how environmental... factors influence the growth of organisms.
- MS-LS2-4 – Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

Common Core State Standards

- RST.6-8.1 – Cite specific textual evidence to support analysis of science and technical texts.
- RST.6-8.2. - Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
- RST.6-8.7. - Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
- RST.6-8.8 Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
- HS-ETS1-1 – Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
- RST.9-12.1 - Cite specific textual evidence to support analysis of science and technical texts.

Environmental Literacy:

- 1.A.1 - Identify an environmental issue
- 1.A.3 – Given a specific issue, communicate the issue, the stakeholders involved, and the stakeholders’ beliefs and values
- 4.B.1 – Analyze the growth or decline of populations and identify a variety of responsible factors.
- 5.A.2 – Analyze the effects of human activities that deliberately or inadvertently alter the equilibrium of natural processes.

Horseshoe Crabs Around the World – Middle School, High School

Next Generation Science Standards:

- MS-LS1-5 – Construct a scientific explanation based on evidence for how environmental...factors influence the growth of organisms.
- MS-LS2-4 – Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

Common Core Standards:

- SL.6-8.5 - Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.
- RST.6-8.7. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
- WHST.6-8.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- RST.11-12.9 - Synthesize information from a range of sources (e.g., text, experiments, simulations) into a coherent understanding of a process, phenomenon or concept

Environmental Literacy:

- 1.A.1 - Identify an environmental issue
- 1.A.3 – Given a specific issue, communicate the issue, the stakeholders involved, and the stakeholders’ beliefs and values
- 4.B.1 – Analyze the growth or decline of populations and identify a variety of responsible factors.
- 5.A.2 – Analyze the effects of human activities that deliberately or inadvertently alter the equilibrium of natural processes.

Paging Dr. Limulus – Middle School, High School

Next Generation Science Standards - None

Common Core Standards:

- WHST.6-8.8 - Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source
- RST.11-12.9 - Synthesize information from a range of sources (e.g., text, experiments, simulations) into a coherent understanding of a process, phenomenon or concept

Environmental Literacy: None

Eyes on the Prize – Middle School, High School

Next Generation Science Standards:

- MS-LS1-8 – Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

Common Core State Standards:

- WHST.6-8.8 - Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source
- RST.11-12.9 - Synthesize information from a range of sources (e.g., text, experiments, simulations) into a coherent understanding of a process, phenomenon or concept

Environmental Literacy - None

LAL Lab: Bacteria, Blood and Biomedical Testing – Middle School, High School

Next Generation Science Standards:

- MS and HS-Science and Engineering Practices
 - Conduct an investigation to produce data to serve as the basis for evidence that meet the goals of the investigation
 - Construct a scientific explanation based on valid and reliable evidence obtained from sources, including the students' own experiments.

Common Core State Standards - None

Environmental Literacy - None

Experiments with Chitosan – Middle School, High School

Next Generation Science Standards:

- MS and HS-Science and Engineering Practices
 - Conduct an investigation to produce data to serve as the basis for evidence that meet the goals of the investigation
 - Construct a scientific explanation based on valid and reliable evidence obtained from sources, including the students' own experiments.

Common Core Standards:

- WHST.11-12.2 Write informative/explanatory texts, including the narration of ...scientific procedures/experiments, or technical processes.

Environmental Literacy: None