

Jay Curriculum: Unit Cover Page

Unit title: Environmental Studies **Grade Level:** 3
Content Area(s): Science **Date Created:**
Designed By: Jay Third Grade Teachers

Year 1 Map & Template Development

- Map/Matrix Completed
- Material & Resources Listed
- Draft Design Template Completed
- Initial Draft Template Document

Year 2 Piloting

- Develop:
- Performance Tasks
- Other Assessments
- Scoring Rubrics
- Piloted

Year 3 Review & Complete Assessment

- Performance Tasks Development
- Other Assessments Completed
- Scoring Rubrics Completed
- Reviewed/Revised Templates

Year 4

- Full Implementation
- Benchmarks Established

Standard(s)/Performance Indicators:

- A1 Group the same organisms in different ways using different characteristics
- A3 Describe the different living things within a given habitat
- A4 Compare and contrast the life cycles, behavior, and structure of different organisms
- B1 Describe a food web and the relationships within a given ecosystem
- B2 Explain the difference between procedures (e.g. green plants), consumers (e.g. those that eat green plants), and decomposers (e.g. bacteria that break down the “consumers” when they die), and identify examples of each
- B3 Compare and contract physical and living components of different biomes – i.e. regions characterized by their climate and plant life – (e.g. tundra, rain forest, ocean, desert)
- B4 Investigate the connection between major living and non-living components of local ecosystem.
- D1 Identify present day organisms that have not always existed, and past life forms that have become extinct
- H1 Identify different forms of energy (e.g. light, sound, heat)
- H2 Explain ways different forms of energy can be produced
- L5 Gather and effectively present information, using a variety of media including computers (e.g. spreadsheets, word processing programming, graphics, modeling)
- L7 Function effectively in groups within various assigned roles (e.g. reader, recorder).

Unit: Environmental Studies

Brief Summary of Unit/Topic

Summary:

Human actions effect all living things within a given habitat. Some animals are not endangered or extinct because of human intervention in specific habitats. The trash created by humans poses a threat within environments. Explore the role of producers, consumers, and decomposers within a given habitat.

Stage #1: Identify Desired Results

Essential Question/s:

General understanding/s (What is worth being familiar with?)

- Understand why some animals become extinct or endangered
- Understand and identify the role of producers, consumers, and decomposers
- By recycling or reusing, energy can be created.

Students will know:

- Animals are dependent of their existing habitat, i.e. rain forest, compost environment
- Changes in a habitat result in some animals becoming threatened, endangered or extinct
- Understanding of a food web and identify producers as those who make trash, consumers as worms in the compost pile and decomposers as the bacteria in a compost pile
- Reusing/Recycling creates new items and/or new energy source

Students will be able to:

- Identify, classify, analyze and research animal traits and habitats
- Present information in pamphlet form
- Illustrate observations in journal form
- Predict, observe and record states of material deterioration

Enduring Understanding/s:

- Students will understand a food web
- Students will understand that human action has a reaction within a specific habitat
- Students will understand that energy can be created by reusing/recycling items

Stage #2: Evidence

What evidence will students have to provide in order to demonstrate that they have developed the skills, knowledge and understanding to successfully complete this unit?

Performance Tasks/Products/other assessments Performance tasks should have a <u>scoring guide</u> .	<i>Performance Indicators</i> for this task.* Example: ELA: C- 1,2,3 Science: B- 3,5,7 SS His: H- 2	<u>Modalities</u> K =Kinesthetic O =oral V =visual W =written	Are <u>examples</u> available to students? ? Y, N, or N/A	Component of Local Assessment System? Y or N (See <u>aligned scoring guide</u> .)
Observe the living things within a compost habitat	A3			
Within the study of composing students will identify producers as those make trash, consumers as the worms in the compost pile and decomposer as the bacteria in the compost pile through prediction, observing, and recording the deterioration of the material in the pile	B2, B4			
Students will illustrate the consumers, producers and decomposers in a food web of a composting system	B1, B2			
Learn about animal characteristics and habitat through a card sort activity and identify animals as abundant, endangered and extinct. Students will research a specific animal and present their information in pamphlet form	A1, A3, A4; B2, D1; L5, L7			
Students will be asked to brainstorm why animals migrate. After a brainstorm list has been created students will eliminate items by responding which alternatives are more feasible	K1, K5, K6			
Students will research the effects of pollutants on living things in a given habitat	B4			
Read and discuss the worksheet Risky Business and students will understand the behaviors that make some animals more at risk than others	D1, D3, D5			
During 4 separate collection days, students will collect specific recycling materials and bring them to school. Items will be counted and tallied per classroom. Results will be depicted in graph form on a bulletin board in each classroom. A total graph will be compiled for all of grade 3 and displayed in a	J1, J2, J3; K3, K4; L1; M4			

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central location. Based on the collection data over 4 days, students will predict how much recycling material will be generated over the periods of weeks, months, and years				
Students will learn about the creation of energy (oil to power) through the incineration process of burning waste paper and the reuse of motor oil during a field trip to the Jay Transfer Station	H1, H2			
OTHER				
Assess students picture journal of living things within the compost habitat				
Teacher evaluation of student recordings				
Evaluate with a rubric				
Present the information they have researched. Evaluate by written standards and oral rubric.				
Final list of reasons that animals migrate				
Students will produce a report. Report will be graded with content and writing rubric				
Teacher evaluation				
Rubric evaluation				
Students will explain that incineration of waste and reuse of motor oil created power/heat through illustrations				
STUDENT SELF ASSESSMENT				
Self assess journal by checking entries against standards checklist				
Rubrics				
Self-assess report by checking against content and writing rubric				

*Abbreviate: English Language Arts= ELA, Career Preparation=CP, Modern and Classical Languages=MCL, Social Studies=SS, Visual and Performing Arts=VPA

Stage #3: Plan learning experiences & instruction

What teaching & learning experiences may equip students to develop & demonstrate the targeted understanding(s)? (activities/plans):

*Plans and activities located in teacher binder

- Human action effects all living things within a given habitat
- Some animals are now endangered or extinct because of human intervention in specific habitats
- The trash created by humans poses a threat within environments
- Explore the role of producers, consumers and decomposers within a given habitat
- Energy can be created by reusing or recycling oil or paper to create heat

REFERENCES: