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| **Unit Information** |
| **Unit Theme: Unit 6****The Unexpected** |  **Ecosystems and Reading!!!** | **Grade****Level:** | **5th** |
| **Integrated Subject/Topic:** | **English Language Arts / Science (Ecosystems) /Social Studies (Migration to US)** |
| **Length (in weeks/days):****1st 2nd 3rd 4th**  |  |
| **Developers:** | **Mrs. Lewis, Mrs. Jones, Miss McDonald, Mrs. Carlson, Mrs. Copeland** |

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| **What’s The Big Idea (s)?** |
|  **Ecosystems require an interconnected relationship of plants and animals to maintain balance and to sustain existence.** |
| **Essential Questions** |
| **How can the interconnected relationships of plants and animals affect the balance of an ecosystem?** |
| **Priority Standards** | **Supporting Standards** |
| **Science:** **5L.2.3** **Infer** the effects that may result from the interconnected relationships of plants and animals to their ecosystems.**ELA**: **RI.5.2** **Determine** two or more main ideas of a text and **explain** how they are supported by key details; summarize the text.**W.5.4** **Produce** clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.**RI.5.1** **Quote** accurately from a text when **explaining** what the text says explicitly and when **drawing** inferences from the text.**Social Studies: 5.G.1.4 Exemplify** migration within or immigration to the United States in order to **identify** push and pull factors. | **L.5.1** **Demonstrate** command of the conventions of standard English grammar and usage when writing or speaking.**W.5.5** With guidance and support from peers and adults, **develop** and **strengthen** writing as needed by planning, revising, editing, rewriting, or typing a new approach.**W.5.9** **Draw** evidence from literary or informational text to support analysis, reflection and research.**W.5.8** **Recall** relevant information of experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.**RF.5.4b** **Read** on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.**5.L.2.3** **Infer** the effects that may result from the interconnected relationships of plants and animals to their ecosystems.**5.OA.2** **Write** simple expression that record calculations with numbers, and interpret numerical expressions without evaluating them.**RI.5.7** **Draw** on information from multiple print or digital sources, demonstrating the ability to locate and answer to a question quickly or to **solve** a problem efficiently.**RI.5.9** **Integrate** information from several texts on the same topic in order to **write** or **speak** about the subject knowledgeably. |
| **Possible Mini Lessons Statements** |
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| Main Lesson:Using, The Mystery of Saint Matthew Island, Unit 6, P. 350, build background, “what can happen when people try to control nature?”1. Read entire basal story. Guide instruction and refer to vocabulary words pertaining to story.
2. Background information on symbiotic relationships. Words to define: commensalism, mutualism, parasitism.
3. View the Dr. Seuss video, *The Lorax*.
4. Explore in discussion/groups how the Lorax feels, acts and wants. Stress feeling words.
5. Math Connection Nail Balancing Act: [www.stevespanglerscience.com/experiment/00000083](http://www.stevespanglerscience.com/experiment/00000083).
6. Conduct Unit Pre-Assessment.
7. Make a text-text connection of reindeer deaths to the impacts on the Lorax. Reindeer statistics found on pages 354 and 355. Draw inferences and conclusions based on this.
8. Refer to number 4 in this lesson when Coherant Writing Post-Assessment is conducted.

5.L.2.3 ; R1.5.1 ; W.54Supporting Science Mini Lesson:Students read *“What Happens When Habitats Are Changed?”* page B36 in MacMillan McGraw-Hill 5th Grade North Carolina Science Book (Jackson’s Chameleon on front cover). This is about bald eagles affected by DDT pesticides. 5.L.2.3Supporting Writing Activity:The author in The Mystery of Saint Matthew Island, describes a catastrophe of disappearing reindeer. Ask students, “does this remind you of anything?” Assist students to brainstorm a rough draft, forming ideas to use in their Post-Assessment.SL.5.1 ; W5.5Supporting Writing Activity:Using both the basal and The Lorax video, lead students to draw evidences from text and recall relevant information from their own experiences describing changes in the environment where adaptation helped or did not help the situation.W5.8Math/Science Mini Lesson:1. The equal sign will be explained by comparing an equation to a scale. Students will learn that both sides of the equal sign have the same value whether the equation contains numbers, fractions, symbols, or variables. Process of elimination will be demonstrated, to show equality by taking away the same from both sides and not tipping the scale. This will be done and students will be reminded of the balancing nail act.
2. Now, with our ecosystem knowledge, how can we also apply this “balance” to , “how can interconnected relationships of plants and animals affect the balance of an ecosystem?”
	1. What might happen if one population on one side increased more rapidly or decreased more rapidly than the other?
	2. What might happen if one was to all of a sudden become extinct? Use your prior knowledge of food chains.

 5.0A2 Poetry Mini Lesson: How Can Decomposers Provide Mystery Evidence About Past Ecosystems?1. Students read the poem, “ Valuables”, page 371, Unit 6.
2. Teacher guides instruction: “Poems sometimes have a deep hidden meaning. A fossil is an imprint of the past.
3. What can the past tell us about our ecosystems today?
4. What makes a fossil?

5.L.2.2RF.5.4bReading Mini Lesson:Using, The Truth About Austin’s Amazing Bats, Unit 6, P. 324, build background, “how can unplanned situations have positive outcomes?”1. Read entire basal story. Guide instruction and refer to vocabulary words pertaining to story.
2. Students draw conclusions on what effect bats have on the environment. Some think they are creepy and have rabies. (The story has many facts!)
3. Lead the discussion into the food chain. Fact: bats eat up to 800 - 1000 mosquitoes in one hour! That helps us a great deal! Who wants to be a mosquito meal?!

SL.5.1Social Studies Mini Lesson (Hurricane Katrina Migration) Unit 6In August of 2005, Hurricane Katrina hit New Orleans, Louisiana. Hundreds of thousands of people were forced to leave their homes, many of which were destroyed in the storm. Analyze and describe the options available to the residents of New Orleans dislocated from Hurricane Katrina.Create a map to show where residents migrated during Hurricane Katrina. These sources are a starting point for information about Hurricane Katrina and the aftermath of the storm:<http://www.csmonitor.com/2005/0912/p01s01-ussc.html><http://articles.latimes.com/2006/aug/20/opinion/op-kotkin20>[www.urban.org/afterkatrina/index.cfm](http://www.urban.org/afterkatrina/index.cfm)[www.nola.com/katrina](http://www.nola.com/katrina)[www.dosomething.org/actnow/11factsabouthurricanekatrina](http://www.dosomething.org/actnow/11factsabouthurricanekatrina)5.G.1.4 |
| **Possible I Can Statements** |
| **Writing:** I can apply what is learned through discussion and locating evidence to create descriptive writing to include feeling words and elaboration.**Science:** I can evaluate how population has an impact on a balanced environment and relationship of plants and animals.**ELA:** I can make text to text connections, to draw inferences and conclusions on what unexpected effects humans can have on nature.**Social Studies:** I can determine cause and effect on migration as a result of a natural disaster.  |
| **Problem-Based / Hands-On Learning Activities** |
| The Nail Balancing ActivityStrategies – “Numbered Heads” (group work)Map Activity |
| **Essential Vocabulary** |  |  |  |
| headline, breathtaking, roost, high- pitched, vital, bizarre, advantageous, potential, resist, rare, valuable, commensalism, mutualism, parasitism, interconnected, interdependence, starvation, bleached, carcasses, decay, parasites, scrawny, suspicious, tundra, geologist, specimen, symbiotic |
| **Resources** |
| **Social Studies:** [**www.urban.org/afterKatrina/index.cfm**](http://www.urban.org/afterKatrina/index.cfm)[**www.nola.com/Katrina**](http://www.nola.com/Katrina)[**www.dosomething.org/actnow/11factsabouthurricaneKatrina**](http://www.dosomething.org/actnow/11factsabouthurricaneKatrina)[**www.history.com/topics/hurricane-Katrina**](http://www.history.com/topics/hurricane-Katrina)**Science:** [**www.Stevespanglerscience.com/experiment/0000083**](http://www.Stevespanglerscience.com/experiment/0000083)[**www.mbgnet.net-Picturesofhabiatsandbiomes**](http://www.mbgnet.net-Picturesofhabiatsandbiomes)[**www.school.discoveryeducation.com/lessonplans/6-8.html-Ecology**](http://www.school.discoveryeducation.com/lessonplans/6-8.html-Ecology)[**www.urbanext.illinois.edu/ecosystems/overview.html**](http://www.urbanext.illinois.edu/ecosystems/overview.html)**ELA:** [**www.studyzone.org.testprep/ela4/hlinferencesp.cfm**](http://www.studyzone.org.testprep/ela4/hlinferencesp.cfm)[**www.quia.com/rr/332704.html**](http://www.quia.com/rr/332704.html)[**www.studyzone.org/testprep/ela4/e/drawconclusionsp.cfm**](http://www.studyzone.org/testprep/ela4/e/drawconclusionsp.cfm) |
| **Achievement Targets- Assessment****What are the tasks implied by the verbs in the standards? What will the student be able to do?** | **Informal** | **Formal** |
| **Diagnostic** | Upon the completion of each mini lesson, teacher will naturally assess student progress. | **Post Assessment:** Draw conclusions by writing feelings identified in this unit to describe in a very visual way, the impact on a population when changes have negatively affected everyone and adaptation is not an option. |
| **Preassessment:** Demonstration of the “support nails” activity – relate to prior knowledge.1. Why are some of the nails more important to the system than others?
2. How could additional nails be added to the system?
3. How might natural ecosystems become unbalanced?
4. What are some natural ecosystems?
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