

Sixth Grade

I. Mississippi Sandhill Cranes

A. General Information

- i. History of species
- ii. Endangered status
- iii. Mississippi Sandhill Cranes
 - a. History
 - b. Sub-species differences
 - c. Biology
 - d. Habitat
 - Roosting and Nesting Habits
 - e. Reproduction
 - Natural
 - Captive breeding
 - f. Crane Protection Program

Sixth Grade Science Framework	Activity
<ol style="list-style-type: none"> 1. <u>Content Strand: Inquiry</u> Apply concepts involved in a scientific investigation. <ol style="list-style-type: none"> a. Use drawings, tables, graphs, and written and oral language to describe objects and explain ideas and actions. b. Evaluate results of different data. 3. <u>Content Strand: Life Science</u> Describe the characteristics, structure, life cycles and environment of organisms. <ol style="list-style-type: none"> a. Compare and contrast the diversity of organisms due to adaptations to show how organisms have evolved as a result of environmental changes. 	<ol style="list-style-type: none"> 1. Inquiry <ol style="list-style-type: none"> a. How big are sandhill cranes? <ul style="list-style-type: none"> • Height • Weight • Wingspan • Compare the size of a crane to a classmate b. Describe the different methods used in the Captive Breeding Program and evaluate the results of each. 3. Life Science <ol style="list-style-type: none"> a. What changes in the Sandhill Crane species have occurred over time. <ul style="list-style-type: none"> • Identify the six subspecies of Sandhill Cranes • What is the relationship the Mississippi Sandhill Crane population and the loss of Wet Pine Savanna?

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<p>II. <u>Wet Pine Savanna</u></p> <p>A. Definition</p> <p>B. Occurrence</p> <p>C. Content</p> <p> i. Grasses</p> <p> ii. Plants</p> <p> a. Carnivorous</p> <p> iii. Animals</p> <p>D. Maintenance</p> <p>E. Mississippi Sandhill Crane & the Wet Pine Savanna</p>	
Sixth Grade Science Framework	Activity
<p>1. <u>Content Strand: Inquiry</u> Apply concepts involved in a scientific investigation.</p> <p> a. Form hypothesis, predict outcomes and conduct a fair investigation that includes manipulating variables and using experimental controls.</p> <p> b. Make and compare different proposals when designing a solution or a product.</p> <p> c. Evaluate results of different data.</p> <p> d. Infer and describe alternate explanations and predictions</p> <p>3. <u>Content Strand: Life Science</u> Predict characteristics, structures, life cycles, environments, evolution and diversity of organisms.</p> <p> a. Compare and contrast the diversity of organisms due to adaptations to show how organisms have evolved as a result of environmental changes.</p> <ul style="list-style-type: none"> • Diversity based on kingdoms, phyla, and classes • Adaptations that increase an organism’s chances to survive and reproduce in a particular habitat. <p>4. <u>Content Strand: Earth and Space Science</u> Develop and understanding of the properties of Earth materials, objects in the sky, and changes in Earth and Sky.</p> <p> a. Describe changes caused by humans on the environment and natural resources and cite evidence from research of ways to conserve natural resources in the United States, including Mississippi.</p>	<p>1. Inquiry</p> <p> a. , f, g, h. Play It's My Savanna!</p> <ul style="list-style-type: none"> • Build a Savanna – Include vegetation, water, trees, animals • Pick one parameter, eg vegetation, and predict the outcome of changing the parameter and then observe the results of the change. • Change another parameter – Predict and observe the results • Identify/describe what is required to have a viable savanna <p>3. Life Science</p> <p> a. Investigate/Identify plants found in 1 square meter of Wet Pine Savanna.</p> <ul style="list-style-type: none"> • Identify/list 5 members of Kingdom: Plantae, XXXXX • Describe two characteristics of Wet Pine Savanna that promote the adaptations seen in Carnivorous plants. <p>4. Earth and Space Science</p> <p> a. Discover the changes and developments seen over time to the Gulf Coast area and its effect on the Wet Pine Savanna.</p> <p> b. Identify area that Wet Pine Savanna is found today.</p> <p> c. Identify interventions currently used to restore and maintain the Wet Pine Savanna.</p>
<p>I. <u>Prescribed Burn Program</u></p> <p>A. Goals of the Prescribed Burn Program</p>	

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- i. Prevent wildfires
- ii. Restore, maintain, enhance habitat
 - a. Fire dependent plants, grasses, trees
- B. The Prescribed Burn
 - i. The Plan
 - a. Area to be burned
 - b. Impact on surrounding area
 - ii. The “Burn Boss”
 - iii. Spinning the Weather
 - iv. Securing the perimeter
 - v. Monitoring the site
 - vi. Results of a Prescribed Burn Program

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Activity

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<p>1. <u>Content Outline: Inquiry</u> Conduct a scientific investigation <u>utilizing</u> appropriate process skills.</p> <ol style="list-style-type: none">Design and conduct an investigation that includes predicting outcomes, using experimental controls, and making inferences.Use simple tools and resources to gather and compare information using standard, metric and non-standard units of measurements.Analyze data collected from scientific investigation to construct explanations and draw conclusions.Communicated scientific procedures and conclusions using diagrams, charts, tables, graphs, maps, written explanations, and/or scientific models. <p>2. <u>Content Outline: Physical Science</u> Analyze chemical and physical changes and interactions involving energy and forces that affect motion of objects.</p> <ol style="list-style-type: none">Distinguish physical properties of matter (e.g. melting points, boiling points) <p>3. <u>Content Outline: Life Science</u> Explain the organization of living things, the flow of matter and energy through ecosystems, the diversity and interactions among populations, and the natural and human-made pressures that impact the environment.</p> <ol style="list-style-type: none">Describe and predict interactions (among and within populations) and the effects of these interactions on population growth to include the effects on available resources.<ul style="list-style-type: none">Adaptations that increase an organism's chance to survive and <i>reproduce</i> in a particular habitat. <p>4. <u>Content Outline: Earth and Space Science</u> Establish connections among Earth's layers including the lithosphere, hydrosphere, and atmosphere.</p> <ol style="list-style-type: none">Analyze climate data to draw conclusions and make predictions	<p>1. Inquiry</p> <ol style="list-style-type: none">[Break into group(s) for this exercise.] Why burn? Formulate a hypothesis about the management of the Wet Pine Savanna using fire.<ol style="list-style-type: none">Predict the outcome of a Prescribed BurnIdentify the differences in areas of the refuge that have had a Prescribed Burn in the last year and those that have not.d, e "Spin the Weather"<ul style="list-style-type: none">Measure the current temperature, wind direction and speed, and, using slide rule, the humidityBased on the findings, determine if it is appropriate to start a Prescribed Burn <p>2. Physical Science</p> <ol style="list-style-type: none">Identify and describe fire dependent grasses, plants, trees <p>3. Life Science</p> <ol style="list-style-type: none">Identify the changes in the Wet Pine Savanna as a result of a fire. Decide if this is a positive or negative change. <p>4. Earth and Space Science</p> <ol style="list-style-type: none">Describe the effect changing weather has on the decision to start a Prescribed Burn.
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