

**STEM+C**  
5E Model Lesson Plan

<b>Grade Level:</b> 4 <sup>th</sup> Grade		
<b>Unit Title:</b> Florida's Diversity		
<b>Lesson Number:</b> 3		
<b>Collection Number:</b> 4		
<b>Established Goals (STANDARDS)</b>		
<b>English Language Arts (ELA)</b>	<b>Science</b>	<b>Social Studies</b>
<ul style="list-style-type: none"> <li>• LAFS.4.RI.2.5</li> <li>• LAFS.4.RI.3.7</li> <li>• LAFS.4.SL.2.4</li> <li>• LAFS.4.W.3.7</li> <li>• LAFS.4.W.3.8</li> </ul>	<ul style="list-style-type: none"> <li>• SC.35.CS-CP.1.3</li> <li>• SC.35.CS-CS.1.2</li> <li>• SC.35.CS-CS.1.3</li> <li>• SC.35.CS-CS.1.4</li> <li>• SC.4.L.17.2</li> <li>• SC.4.L.17.3</li> <li>• SC.4.N.1.6</li> <li>• SC.4.N.3.1</li> </ul>	<ul style="list-style-type: none"> <li>• SS.4.C.2.1</li> </ul>
<b>Materials Needed:</b>		
<ul style="list-style-type: none"> <li>• Computer</li> <li>• Projector</li> <li>• Population Simulation Game 2 Direction</li> <li>• Population Data Table for Game 2</li> <li>• Materials for Game               <ul style="list-style-type: none"> <li>○ Yarn or Ribbon – 3 different colors so each student will have 1 (see game directions)</li> <li>○ Poker Chips or other small manipulative – several of same type (see game directions)</li> <li>○ Dice</li> <li>○ Chart paper (optional)</li> <li>○ Marker</li> </ul> </li> </ul>		
<b>Time to Complete the Lesson:</b> 90 minutes		
<b>Lesson Essential Question:</b> How does an invasive species impact the native species in the Everglades?		
<b>Lesson Objectives:</b>		
<ul style="list-style-type: none"> <li>• The student explain the impact that an invasive species has on the environment.</li> </ul>		
<b>Key Vocabulary:</b>		
<b>English Language Arts (ELA)</b>	<b>Science</b>	<b>Social Studies</b>
Details Graphic Organizer Sequencing	Everglades Invasive species Native species Population	Florida Impact

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	Simulation Variables	
<p><b>ENGAGE (Spark student interest, make connections between past and present knowledge; ex: hands-on activity, video clip, article, photograph, etc.):</b></p> <p><b>Remember That Game?</b></p> <ul style="list-style-type: none"><li>• Remind students about the game they played in the last collection.</li><li>• Ask students what the simulation demonstrated to them about the food chain in the Everglades.<ul style="list-style-type: none"><li>○ Make sure students use the data collected from the game to explain their connections.</li></ul></li><li>• Ask students to journal what they think would happen if there were invasive species in the simulation game.</li></ul>		
<p><b>EXPLORE (Students work together on an interactive activity; students begin constructing knowledge):</b></p> <p><b>Who Eats in the Everglades - <a href="#">Simulation Table</a> for Students</b></p> <ul style="list-style-type: none"><li>• Remind students about the table they completed in Collection 3</li><li>• Tell them that today you want them to complete 2 columns – Type of Consumer and Diet.<ul style="list-style-type: none"><li>○ Ask students to look at the information they collected on they python</li><li>○ Ask them to share how they think it will impact the Population Simulation Game.</li></ul></li></ul>		
<p><b>EXPLAIN (Students explain their thinking, misconceptions addressed here, teacher introduces vocabulary):</b></p> <p><b>Population Simulation <a href="#">Game 2 Direction</a></b></p> <ul style="list-style-type: none"><li>• Tell students that today we will use the information we have learned about the animals that live in the Everglades to conduct a SIMULATION again, but this time we will add the python.</li><li>• Explain to students how to play the game using the directions linked above but be sure to include the python.<ul style="list-style-type: none"><li>○ The directions are the same as in the last collection</li><li>○ You may need to play the first round slowly to explain how they should play.</li><li>○ Use the <a href="#">Population Data Chart</a> to record the events of each round</li><li>○ Allow students to continue with 2 – 3 more rounds of the game.</li></ul></li><li>• Explain to students that they will playing the game again later.</li></ul> <p><b>SUPPLEMENTAL SUGGESTION:</b> Once students have played the game whole class, you may want to place the game at a center with the board printed out so students can continue to play the game and become familiar with it.</p>		
<p><b>ELABORATE/EXTEND (Students apply new learning to a new or similar situation)</b></p>		

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### What Happened?

- Have students journal a compare and contrast response in their journal explaining what the game showed them.

### EVALUATE (Students demonstrate understanding; can be written, verbal, visual, or performance/task)

#### Observation of Journal:

Monitor student responses to discussion questions.  
Observe student interaction during the simulation.

### ESOL Strategies:

#### ESOL Strategies Matrix

##### A. Accommodations

- A1 Heritage Dictionary
- A2 Heritage Language (L1) Support
- A3 Flexible Scheduling
- A4 Flexible Setting
- A5 Flexible timing

##### B. Clear Communication

- B1 Concise Language
- B2 Clear Directions
- B3 Enunciation
- B4 Pauses & Pacing
- B5 Pointing
- B6 Repeating/Paraphrasing
- B7 Gestures
- B8 Show Examples & Non-Examples
- B9 Demonstrations
- B10 Anecdote/Storytelling

##### C. Assessments

- C1 Rubrics
- C2 Presentations
- C3 Portfolio
- C4 Checklist
- C5 Labeling
- C6 Interview
- C7 Response Cards
- C8 Oral Assessment
- C9 Observation
- C10 Context Embedded Text
- C11 Voting Devices
- C12 Cloze Test
- C13 Visual Representations
- C14 Self/Peer Assessment
- C15 Samples
- C16 Sentence Frames

##### D. Vocabulary

- D1 Etymology/Cognates
- D2 Semantic Feature Analysis
- D3 Context Clues
- D4 Tier 2/ Tier 3 Analysis
- D5 Interactive Word Walls
- D6 Vocabulary Games
- D7 Multiple Meanings
- D8 Phonology
- D9 Vocabulary Banks

##### E. Collaboration & Conversation

- E1 Heterogeneous Grouping (Language/Content Readiness, Learner Profiles, & Interests)
- E2 Homogeneous Grouping (Language/Content Readiness, Learner Profiles, & Interests)
- E3 Jigsaw
- E4 Peer Pair
- E5 Reader's Theater
- E6 Think/Pair/Share
- E7 Academic Games
- E8 Group Presentation/Projects
- E9 Socratic Seminar
- E10 Panel Discussion
- E11 Debate/Defend with Evidence

##### F. Metacognitive & Metalinguistic

- F1 L1 Transfer
- F2 Mnemonic Devices
- F3 Dialogue Journals
- F4 Self-Correction
- F5 Self-Evaluation
- F6 Self-Monitoring
- F7 Peer Editing
- F8 Associations

##### G. Context Embedded Supports & Close Reading

- G1 Activation and/or Building Prior Knowledge
- G2 Chunking Text
- G3 Annotations & Symbols
- G5 Ask Clarifying Questions
- G6 Modeling
- G7 Read Aloud
- G8 Think Aloud
- G9 Multimodal Tests
- G10 Visualization/ Illustration
- G11 Summarizing
- G12 Dramatic Enactments/ Role Play
- G13 Identify Key Concepts
- G14 Similarities & Differences
- G15 Language Experience Approach
- G16 Note-Taking/ Outline Notes
- G17 Question-Answer-Relationship (QAR)
- G18 Reading with Specific Purpose
- G19 Reread Text

##### G20 Text Features & Structural Analysis

- G21 Survey, Question, Read, Recite, Review (SQ3R)
- G22 Text Connections
- G23 Total Physical Response (TPR)
- G24 Vary Complexity of Assignment
- G25 Realia/ Manipulatives
- G26 Captioning

##### H. Multimodal & Multimedia

- H1 Audio-Visual Applications
- H2 Digital Books
- H3 Computer Software
- H4 Document Camera
- H5 Interactive White Board
- H6 Tablet/ Interactive Devices
- H7 Language Master
- H8 Video/ Film/ CD/ MP3
- H9 Digital Simulations
- H10 Translation Devices

##### I. Advance Organizers

- I1 Charts (Flowcharts, T-Charts, Etc.)
- I2 Anticipation Guides
- I3 Cornell Notes
- I4 Digital Tools/Software
- I5 Foldables
- I6 Graphs/Diagrams
- I7 K-W-L
- I8 Reading and Analyzing Non-Fiction (RAN)
- I9 Notes TM
- I10 Webbing/ Mapping
- I11 Story Maps
- I12 Timelines
- I13 Venn Diagrams
- I14 Vocabulary Improvement Strategy (VIS)

##### J. Additional Resources

- J1 Art Integration
- J2 Community Resources
- J3 Cultural Sharings
- J4 Celebrations
- J5 Field Trips
- J6 Guest Speakers
- J7 Holiday Programs
- J8 Multicultural Resources
- J9 Music/ Songs/ Jazz Chants

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**ESE Strategies:**

**ESE Interventions & Accommodations:**

- |                               |                                     |   |   |
|-------------------------------|-------------------------------------|---|---|
| 1. Teacher-Student Conference | 2. Outlined Notes                   | 3. Proximity Control  | 4. Peer Tutoring/Study Buddy                        |
| 5. Specialized equipment      | 6. Flexible Setting                 | 7. Preferential Seating   | 8. Flexible Scheduling & Extra Time                 |
| 9. Small Group for testing    | 10. Read directions                 | 11. Reduced Assignments   | 12. Highlight/Underline/Circle key info & key vocab |
| 13. Open Notes/Book Test      | 14. Lessons Broken to small segment | 15. Flexible Presentation (repeat, clarify, paraphrase, summarize directions) |   |
| 16. Differentiated test       | 17. ESL/ESE/Reading Specialist      | 18. Redo/Correct Assignments& Test pull out.                                  |   |