APPENDIX D-1

LESSON PLAN FORM

Intern: \_\_\_\_Jocelyn Miller\_\_\_\_\_\_ Date: \_10/15; continuous Group Size: \_\_\_24\_\_\_\_\_

Estimated time for Lesson: \_\_55 min\_\_\_\_\_\_ Mentor teacher approval: \_\_\_\_\_\_\_\_\_\_\_\_

Content Area: \_\_\_\_\_7th Life Science\_\_\_\_\_\_\_\_\_\_\_

Topic: \_\_\_\_\_Picture Walk: Ch. 24, Sec. 1; Ch. 25; Ch. 26\_\_\_\_\_\_

**L.A. Content Standard & Benchmark:**

* [CCSS.ELA-LITERACY.RST.6-8.1](http://www.corestandards.org/ELA-Literacy/RST/6-8/1/)  
  Cite specific textual evidence to support analysis of science and technical texts.

* [CCSS.ELA-LITERACY.RST.6-8.2](http://www.corestandards.org/ELA-Literacy/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.

* [CCSS.ELA-LITERACY.RST.6-8.4](http://www.corestandards.org/ELA-Literacy/RST/6-8/4/)  
  Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 6-8 texts and topics*.

* [CCSS.ELA-LITERACY.RST.6-8.7](http://www.corestandards.org/ELA-Literacy/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).
* 24. Analyze food webs to determine energy transfer among organisms (LS-M-C2)
* 25. Locate and describe the major biomes of the world (LS-M-C3)
* 26. Describe and compare the levels of organization of living things within an ecosystem
* (LS-M-C3)
* 27. Identify the various relationships among plants and animals (e.g., mutualistic, parasitic, producer/consumer) (LS-M-C4)
* 28. Differentiate between ecosystem components of habitat and niche (LS-M-C4)
* 36. Distinguish the essential roles played by biotic and abiotic components in various
* ecosystems (SE-M-A1)
* Literacy
* Familiarize themselves with the terminology and the appearance of each biome before we begin taking notes

**Objective(s):**

* Students will be able to describe the general climate and habitat types found in each biome, and locate each biome on a globe or map
* Locate biomes on a map and identify the ecosystems found in each biome through multiple choice and short answer questions with 85% accuracy
* Identify the various relationships among plants and animals
* Differentiate between habitat and niche
* Describe the roles of biotic and abiotic factors in any ecosystem with 85% accuracy
* Analyze and construct food webs to determine energy transfer between trophic levels with 85% accuracy

**Methods of Assessing Learning:**

* Students will take a Biomes quiz within two weeks of this literacy activity

**Materials:**

Textbook

Picture Walk Guide

**Management Considerations:**

Inside classroom or outdoors?

**Accommodations for different ability levels and learning styles:**

**Justification:**

* Low risk opportunity to practice literacy skills in a science class
* Removes the need to assign reading book chapters for homework

**Procedures/Activities:**

* Students will work (in pairs or individually?) with the classroom set of textbooks to answer questions about images and figures in Chapters 24-26
* Activity will be completed during class time when not in lecture or lab, especially in first 3 days of unit
* Teacher will judge the amount of time needed for the average student to complete the assignment.

**Picture Walk: Guided Literacy Activity**

**Directions.** Analyze the images and figures in your textbook for Ch. 24, Sec. 1; all of Ch. 25; and all of Ch. 26. There will be 1 or 2 questions for each figure. The questions do not follow the same order as the book, but do go in the same order as your SLUG. You may discuss the figures with your partner.

**Chapter 24**

**(Figure 1, page 684)**

1. After looking at the images in this figure and reading the caption, what do you think the word “biosphere” means?

**SKIP AHEAD**

**Chapter 26**

**(Figure 5, page 744)**

1. List the 7 land biomes.
2. What could be an 8th biome?

**(Figure 6, page 745)**

1. Why don’t trees grow in the tundra?

**(Figure 7, page 745)**

1. List 3 organisms that you might find in the tundra biome.

**(Figure 8, page 746)**

1. What kinds of adaptations do animals in the taiga have?

**(Figure 9, page 746)**

1. Deciduous trees of temperate forests lose their leaves in the winter. Do you think that these trees could survive in the taiga? Why or why not?

**(Figure 10, page 747)**

1. What kinds of organisms would you expect to find in a temperate rainforest?

**(Figure 11, page 748)**

1. Do you think there are more plant species in a tropical rainforest or in a temperate rainforest? Why?

**(Figure 12, page 749)**

1. What are 4 habitat types described in this figure?

**(Figure 13, page 750)**

1. Why are deserts so hard to live in?

**(Figure 14, page 751)**

1. What kinds of animals would you expect to find in this biome?

**(Figure 15, page 753)**

1. Would you expect to find many species of fish living in this stream? Why or why not?

**(Figure 16, page 754)**

1. What are the differences between ponds and lakes?
2. Why can more plants grow in ponds than in lakes?

**(Figure 17, page 755)**

1. Why is this habitat not considered a grassland?

**(Figure 18, page 757)**

1. Why do you think so many organisms live in coral reefs?

**(Figure 19, page 758)**

1. You probably grew up calling sea stars “starfish.” What makes sea stars different from fish? What is their habitat?

**(Figure 20, page 759)**

1. Is this a freshwater or a saltwater ecosystem? How can you tell?

**NOW GO BACK**

**Chapter 24**

**(Figure 2, page 685)**

1. What is the Latin or Greek root found in the term “ecosystem?” What do you think an “ecosystem” is?
2. List 4 living organisms in this ecosystem.

**(Figure 3, page 686)**

1. What are the levels of organization described in these images?
2. What is the difference between a community and an ecosystem?

**(Figure 4, page 687)**

1. Do the woodpecker and the salamander share the same habitat? Why or why not?

**Chapter 25**

**(Figure 1, page 712)**

1. What are abiotic factors?
2. What are biotic factors?

**(Figure 2, page 713)**

1. Based on these images, what do you think a “limiting factor” is?
2. What would probably be a limiting factor in the desert biome?

**(Figure 3, page 714)**

1. Would you expect plants to grow on the sea floor? Why or why not?
2. Would you expect there to be more mushrooms or more flowers growing on the ground of a shaded forest? Why?

**(Figure 4, page 715)**

1. How have penguins adapted to life in the cold?
2. How have camels adapted to life in the desert?

**(Figure 5, page 715)**

1. Why are environments near the equator warmer than environments near the poles?

**(Figure 6, page 716)**

1. How does elevation affect plant growth? Is this an abiotic or biotic factor?

**(Figure 7, page 717)**

1. How is wind created?

**(Figure 8, page 718)**

1. Which biome is often created by the Rain Shadow Effect? How does this process work (you may draw a diagram)?

**(Figure 9, page 720)**

1. What are clouds made of?

**(Figure 10, page 721)**

1. What is the difference between “transpiration” and “evaporation?”
2. Using this image, draw a diagram of the Water Cycle. Label your pictures.

**(SKIP FIGURES 11 AND 12)**

**(Figure 13, page 724)**

1. Which types of organisms are responsible for converting carbon dioxide into a form that other organisms use for energy?

**(Figure 14, page 726)**

1. What is the difference between photosynthesis and chemosynthesis?

**(Figure 15, page 727)**

1. What is always the first step in a food chain? Why?

**(Figure 16, page 728)**

1. What is the chipmunk’s role in this food web?

**(Figure 17, page 729)**

1. Why does energy decrease with each level in this model?
2. Which level would you expect to have the biggest populations, producers or secondary consumers?

**Chapter 26**

**(Figure 1, page 740)**

1. Based on this image, what do you think the word “succession” means?

**(Figure 2, page 741)**

1. What type of organism is the first to colonize bare rock?

**(Figure 3, page 742)**

1. What is the definition of secondary succession, given in this figure?
2. What happens after a forest fire?

**(Figure 4, page 743)**

1. What do you think the phrase “climax community” means?

APPENDIX D-2

Lesson Plan Format

\_\_\_\_\_Jocelyn Miller\_\_\_\_\_\_\_\_\_\_\_\_ \_\_Begin 10/15; continuous\_\_ \_\_\_\_\_7\_\_\_

Student Teacher Date Grade Level

\_\_\_24\_\_\_\_ \_\_\_\_\_Throughout Unit\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Group Size Estimated Time for Lesson Mentor Teacher’s Signature

Lesson Title: \_\_\_\_ Picture Walk: Ch. 24, Sec. 1; Ch. 25; Ch. 26\_\_\_

**GLE’s/Benchmarks:**

* 24. Analyze food webs to determine energy transfer among organisms (LS-M-C2)
* 25. Locate and describe the major biomes of the world (LS-M-C3)
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* 28. Differentiate between ecosystem components of habitat and niche (LS-M-C4)
* 36. Distinguish the essential roles played by biotic and abiotic components in various
* ecosystems (SE-M-A1)
* Literacy
* Familiarize themselves with the terminology and the appearance of each biome before we begin taking notes

**Objectives: (TLW:)**

* Describe the general climate and habitat types found in each biome, and locate each biome on a globe or map
* Locate biomes on a map and identify the ecosystems found in each biome through multiple choice and short answer questions with 85% accuracy
* Identify the various relationships among plants and animals
* Differentiate between habitat and niche
* Describe the roles of biotic and abiotic factors in any ecosystem with 85% accuracy
* Analyze and construct food webs to determine energy transfer between trophic levels with 85% accuracy

**Teacher Materials/Resources:**

Copies of Picture Walk Literacy Guide (can print with space for students to write on guide, or instruct students to write on own paper)

**Student Materials/Resources:**

Classroom set of textbooks

Picture Walk Literacy Guide

**Technology Integration:**

**Lesson Procedure and Activities:**

1. **Introduction:**

* Review for 6 Kingdoms Quiz
* Introduce personal research project (exit tickets)
* Distribute Picture Walk Literacy Guide and explain the directions with them
* Allow students to begin working with their desk partner to answer the questions

**B. Activities:**

* Students will work in pairs with the classroom set of textbooks to answer questions about images and figures in Chapters 24-26

1. **Closure:**

* Activity will be completed during class time when not in lecture or lab, especially in first 3 days of unit
* Teacher will judge the amount of time needed for the average student to complete the assignment.

**Accommodations/Modifications:**

**Assessment/Evaluation:**

Literacy Guides may be graded for accuracy or completion – depending on time available to grade. Suggest either 0.5 or 1 point for each question, 25 or 50 points total.