

**SAMPLE SIOP LESSON PLAN****SUBJECT: Life Science****UNIT FOCUS: Biome****Lesson # 1****Length of lesson 1 day**

**STANDARD(S):** Virginia Standards of Learning. Life Science 10: The students will investigate and understand how organisms adapt to biotic and abiotic factors in an ecosystem.

**LESSON TOPIC: Living Things and the Environment****OBJECTIVES:** *write on board***Language** Students will

- Define new vocabulary visually and in writing

**Content** Students will

- Identify and categorize the biotic and abiotic factors in an ecosystem
- Compare and contrast ecosystems, populations, and communities
- Investigate how an organism's habitat is affected by abiotic and biotic factors

**KEY VOCABULARY:** ecosystem, biotic factors, abiotic factors**MATERIALS:** index cards, poster paper

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**PREPARATION:**

- 1) Post four pieces of poster paper in the corners of the room. Label **hot**, **cold**, **dry**, and **wet**.
- 2) Ask students to bring in, or have, index cards to make vocabulary cards for each of the key vocabulary terms

**MOTIVATION:**

**\*\*Post, read, and explain the content and language objectives of this lesson to the students.**

“Let’s look at our language objectives for today. Students will (read language objectives above). Now let’s look at our content objectives for today. Students will (read content objectives above)”  
Explain the objectives.

**Warm Up/Building Background** (15 minutes)

- Tell the students to choose a corner and list things found in those environments on the poster paper. Then ask the groups to categorize the things as living or non-living (students could do this by highlighting living things with one color and nonliving things with a different color). Groups select a presenter and that student shares the group's poster. Expand the topic by asking the groups to think and discuss the following questions:
  - What are some areas or regions (in the U.S. or elsewhere) with these characteristics? Have you ever lived in one of these areas?
  - What do these environments have in common? What environments are the most different? Explain.
  - What are some ways you adapt to your environment (jump in the pool when it is hot, turn on the heat in the winter, etc.)
  - What environment is the best to live in? How did you come to this decision?

Ask groups to share their responses with the whole class and record some of the answers for the class to see.

- Tell the students we are going to learn two new words for “living” and “non-living” today. Introduce *biotic* and *abiotic*.
- Explain, “With each of our key vocabulary words for this chapter, we will be making vocabulary cards that will help us study.” Model a vocabulary card--write the word on the front side, write a definition in your own words, draw a picture, and use the word in a sentence on the back. Students develop a vocabulary card for *biotic* and *abiotic*. Write the new words on the board or add to a Word Wall.

**PRESENTATION:** (10 minutes)

- Read the introductory passage on pp. 16-17 to the students. Check for comprehension throughout and discuss any unknown words.

**PRACTICE/APPLICATION** (10 minutes)

- Emphasize that all the biotic and abiotic factors that interact in an area form an ecosystem and ask the students to help you make a word web for ecosystem (you may want to help the students get started by asking questions like, “Ok, what was the name of the ecosystem of these prairie dogs?” and “What is the name of the ecosystem where we live?”). Leave the web on the board or overhead for the students to refer to later in the lesson.
- Develop vocabulary card for *ecosystem*. Write the new word on the board or add to a Word Wall.

**REVIEW/ASSESSMENT:** (5 minutes)

- Students write two things they learned in the lesson and one question they still have on the Exit Sheet for today's lesson.
- Review objectives. “Let's see if we met our language objectives for today. Students will (read language objectives above). Now let's see if we met our content objectives for today. Students will (read content objectives above).” Discuss if met or not and why/how.