



BETHANY

LUTHERAN COLLEGE

Instructor's Name: Trevor Larson

Subject : Science

Grade: 5th

Title of Lesson: *Relationships in Ecosystems*

Standard(s) the Lesson will Address: Type out the source, number, and the text of the [standard \(s\)](#) addressed in this lesson

Science- 5.4.2.1.1- Describe a natural system in Minnesota, such as a wetland, prairie, or garden, in terms of the relationships among its living and nonliving parts..

Objective: explain how populations compete and are limited by the resources they need. Define habitat, niche, symbiosis, commensalism, mutualism, and parasitism

DIFFERENTIATION (if applicable) and ACCOMMODATIONS:

Differentiating **FOR:** readiness

Differentiating **IN:** content

Aly will have the instructions read to her

Materials Needed: Science book, white-board and markers

Vocabulary:

Content: Limiting factor: any resource that restricts the growth of populations

Carrying capacity: greatest number of individuals within a population that an ecosystem can support

Habitat: physical place where an organism lives and hunts for food

Niche: special role that an organism plays in a community

Symbiosis: a relationship between two or more kinds of organisms that lasts over time

Mutualism: a symbiotic relationship that benefits both organisms

Commensalism: a symbiotic relationship that benefits one organism without harming the other

Parasitism: symbiotic relationship where one organism benefits and the other is harmed

Anticipatory Set:

Can anyone tell me what a population is? All the members of a single species that live in an ecosystem.

How might populations change in an ecosystem?

What do you think might cause changes to a population?

Pre-Assessment Plan (if any):

Look and wonder on page 154

How does this relationship help both organisms survive?

The hippo provides food for the bird, and the bird gets rid of pests for the hippo

Input: (SCRIPTED)

What do you think of when you hear the word compete? **Draw on white-boards**

What are you competing for during a sporting event?

What do you think organisms might compete for in an environment?

Read pages 156-162

Stop and explain key vocabulary terms along the way

What is a limiting factor for a forest?- rainfall, and temperatures

Can populations grow indefinitely?--- NO resources eventually run out such as space, water, food, air, shelter

Turn to page 158

Ask students to think about where they live and what their roles, or jobs are at home?

What is your niche in your habitat? **Have students draw on their white-board quickly to answer questions**

Shoemaker made it to here.... Are the two different birds the same species?

Read 158

Quick check on 159

Two populations share the same food and habitat. What key difference could cause them to occupy different niches? They eat at different times, they eat different parts of the same food

What might happen to organism when their habitats are destroyed?

The organisms will have to move to find a new habitat or compete with other organisms in the same habitat

Pg 160

What kinds of things do you and your family members do that could be called mutualism? Parents work to buy food for everyone to eat, and I help cook and clean up

What kinds of things do you do that could be called commensalism? I walk to school on the sidewalk, The sidewalk is helpful to me

How do you think animals interact in ways that one or both animals benefit from the relationship? A honey bee drinks nectar from the flower and at the same time pollinates the flower

Read 160-161

How do you think one organism in the relationship benefits? It gets food and shelter from the other organism

How do you think that the other organism is harmed in the relationship? The other organism may become too weak or become sick

Why do parasites often harm, but not kill their hosts? Parasites need their host as a home and a food source. If they kill their host, they would lose their food source and their home

Guided Practice (Formative Assessment):

Vocab sheet

Closure: (SCRIPTED)

Independent Practice/Summative Assessment: (How will students extend or apply their learning OR demonstrate mastery? If demonstrating mastery, include criteria for evaluation (checklist, rubric, sample, etc).

Reflection

1. As I reflect on the lesson, to what extent were students productively engaged?

The students were engaged from the start of the lesson. The only time that the students were off task was when it came time to write, and draw their answers on their white boards. Students were doing their best to come up with their own creative answers.

2. To what extent did the students learn what I intended? Were instructional objectives met?

The students met everything in the objectives. It did take a few examples of the vocabulary term niche. My examples I thought were good examples, but for some reason it took another few examples for the students light bulbs all to come on. Instructional objectives were met also. There was at times some messing around with the white boards, but that can be expected with 5th graders.

3. To what extent did I alter my objectives or instructional plan as I taught the lesson? Why?

I did not alter my objectives at all. I did have to come up with some examples of vocabulary terms on the go. My initial examples did not work for everyone, so a few more were needed. I did alter my instructional plan just a little bit in terms of the order. It didn't flow the way I wanted it to so I made some changes.

4. To what extent did I practice effective classroom management strategies? What issues do I need to address when I teach again?

I practiced classroom management well. I did not make a big deal about the little issues that come along with energetic students. I used proximity with my students for most of the issues. They know that when I am walking towards them that I mean business and they better stop what they are doing.

5. To what extent did I provide closure to the lesson?

I was cut a little short for closure on the first half of the lesson. When we came back the next day and we finished the lesson, I brought everything back together for the students, and highlighted key points.

6. If I had the opportunity to teach this lesson again to the same group of students, what would I do differently? Why? How would this affect the outcome of this and future instruction?

I would change pacing up for this lesson. I picked up the pace for the second half of the lesson and I was able to provide good closure then. The first time I was not able to provide closure as we were running late for math intervention.