

LESSON PLAN by Whitley Starnes

5E Science Lesson: Food Chain

Time: 30 minutes

Grade Level: 5th grade

Academic Standard:

Life Science - 5.3.1 Observe and classify common Indiana organisms as producers, consumers, decomposers, predator and prey based on their relationships and interactions with other organisms in their ecosystem.

Unpacked:

Knowledge

- Common Indiana organisms
- Define producers
- Define consumers
- Define decomposers
- Define predator
- Define prey
- What is an ecosystem?
- Food chain

Skills

- Observe
- Classify
- Create a food chain

Performance Objectives:

Given a picture of two organisms, the students will correctly classify each organism as either a producer or a consumer.

Given a picture of two organisms, the students will correctly classify each organism as either a predator or a prey.

Given a half sheet of paper, the students will create a food chain that includes a producer, a consumer, a predator, and a prey.

Assessment (Evaluation):

To assess the first two performance objectives, the teacher will have the students turn in their note-taking worksheet that has the students classify four organisms as a producer, a consumer, a predator, or a prey. (Note-taking worksheet is located at the end of the lesson plan.)

To assess the third performance objective, the teacher will have the students turn in their drawing of a food chain, which is on page two of their note-taking worksheet. Taking a look at the food chain, the students should have drawn four organisms and labeled each organism as a producer, a consumer, a predator, or a prey. Also, their food chain should follow a logical sequence and

make sense. For example, leaf off a plant (producer) – rabbit (consumer) – coyote (prey) – lion (predator).

***These two formative assessments will help the teacher plan further instruction. Also, the teacher will provide feedback on both assignments and return them to the students, so that they can use them as a study guide for their chapter test.

Advanced Preparation by Teacher:

Note-Taking worksheet (20 copies)

Note-Taking worksheet Answer Key (1 copy for teacher)

Computer/Internet

Lion King – The Circle of Life song

<http://www.youtube.com/watch?v=HwSKkKrUzUk>

The Food Chain

http://www.bbc.co.uk/schools/ks2bitesize/science/living_things/food_chains/read1.shtml

Picture cards (set of 10 each)

*Cut and paste pictures onto flashcards

*Pictures are located at the end of the lesson plan

Lettuce

Rabbit

Coyote

Lion

Yarn (10 strands that are about 12 inches long)

Procedure:

Introduction/Motivations (Engage):

1. Begin the lesson by having the students listen to song “The Circle of Life” from the *Lion King* movie. (**Gardner: Musical/Naturalist**) Go to the following link.
<http://www.youtube.com/watch?v=HwSKkKrUzUk>
2. Ask the students: “What is meant by the circle of life?” (**Bloom: Knowledge**) Accept any responses that are appropriate. This is not the time to explain. Listen to their responses to the question you pose.
3. Show the picture cards of the lettuce, rabbit, coyote, and lion to the students.
4. Present the following challenge to the students.
“With a partner, I would like for you to organize these picture cards to represent the circle of life.”

Step-by-Step Plan:

(Explore)

5. Have students get with their science partners. (**Gardner: Interpersonal**)
6. Pass out the picture cards along with a string of yarn.
7. Allow students to observe their picture cards and string of yarn.
8. Remind the students of the challenge, which is to organize the picture cards to represent the circle of life. (**Gardner: Bodily/Kinesthetic**)
9. As students are finding ways to meet this challenge, go around and have the students share why they organized their picture cards a particular way.

10. Once you have met with all the students, and they all have some way of organizing their picture cards to represent the circle of life, have them come back together as a class.
11. Have students share with the class what they did to organize their picture cards to represent the circle of life.

(Explain)

12. Explain to the students that when they were organizing their picture cards to represent the circle of life, they were also making a food chain.
13. Direct students' attention to the overhead screen and go to the following link. (**Gardner: Visual/ Spatial**)
http://www.bbc.co.uk/schools/ks2bitesize/science/living_things/food_chains/read1.shtml
*This website has a slide show that talks about the food chain, producers & consumers as well as prey & predators.
14. Go through each of the slides (total of 4) on the website and discuss each slide with the students.
15. After going through all 4 slides on the website, ask the following questions.
 - Why are green plants called producers? (**Bloom: Comprehension**)
 - A: They make their own food.
 - Why are animals considered consumers? (**Bloom: Comprehension**)
 - A: They get their food from plants or other animals.
 - What is a predator? (**Bloom: Knowledge**)
 - A: An animal that eats other animals.
 - What is a prey? (**Bloom: Knowledge**)
 - A: The animal "a consumer" that is being eaten.
16. Pass out the Note-Taking worksheet and guide students in filling in the blanks on page 1 and page 2. Stop after the fill in the blank on Page 2.
*****Note to Teacher:** On page 1, the students will need to classify the lettuce as either a producer or consumer. Then, classify the rabbit as either the producer or consumer. For the coyote and the lion, the students will need to classify one as the predator and the other as the prey. You will be doing this as a class, so be sure to have students explain/support their reasoning. (**Bloom: Analysis**)

Closure (Extend):

17. Direct students' attention to the bottom of page 2 of the Note-Taking worksheet and explain to the students that they will be drawing their own food chain. (**Bloom: Application**)
18. Remind students of the food chain (circle of life) they made at the beginning and explain that in their food chain they need to include 4 organisms total. Also, they need to have 1 producer, 1 consumer, 1 prey, and 1 predator. These should be labeled on their food chain.
19. When students are finished with their food chain, have them turn in their Note-Taking worksheet to the green tray at the front of the classroom.

Adaptations/Enrichment:

Student with a disability in reading/language arts

While reading/discussing the slide show about food chains be sure to point and read. Also, read

aloud each statement on the Note-Taking worksheet, so that the student can follow along with his or her pointer.

Student with Gifts and Talents in Creativity

Modify the Note-Taking worksheet, so that instead of drawing a food chain, he or she will draw a food web, which has multiple food chains.

Student with a Visual Impairment

Have the student sit up at the front throughout the whole lesson, so that he or she can see the overhead as well as the picture cards you show the students at the beginning of the lesson. Also, enlarge the Note-taking worksheet.

Student with a Hearing Impairment

Have the student sit up at the front throughout the whole lesson. Also, when talking to the whole group, speak in a teacher voice, and make sure your back is not turned away from him or her when you are speaking. In addition, when playing “The Circle of Life” song, make sure the volume is set at an appropriate volume for him or her to hear.

Self-Reflection:

- Were my students able to organize the picture cards to represent the circle of life?
- Were my students able to classify producers, consumers, predators, and prey?
- Did they understand how to make a food chain?
- Were my students engaged?
- Was my assessment effective?
- What parts of the lesson went well?
- What parts of the lesson did not go as well?
- How will I improve my lesson for the next time I teach?

References:

Youtube – Lion King “The Circle of Life” song

<http://www.youtube.com/watch?v=HwSKkKrUzUk>

Food Chains Slides

http://www.bbc.co.uk/schools/ks2bitesize/science/living_things/food_chains/read1.shtml

Cycle of Life 1: Food Chain

<http://sciencenetlinks.com/lessons/cycle-of-life-1-food-chain/>



NOTES
Producers and Consumers
Prey and Predators

Name _____ Date _____



Directions: Read the following statements. Then, fill in the blanks using the word bank.

<p><u>Word Bank</u></p> <p>prey organism consumer food chain</p> <p>ecosystem producers predator</p>

1. An _____ is all the living and nonliving things in an area.
2. A _____ is a transfer of energy through a series of organisms that use each other as food.
3. A _____ is any living thing.
4. Plants are called _____ because they make their own food. They are at the start of a food chain.
5. Animals are called _____ because they eat other plants and animals.
6. A _____ is an animal that eats other animals.
7. The animals that predators eat are called _____.

Directions: Draw your own food chain below!



NOTES

Producers and Consumers

Prey and Predators

Name _____ **Key** _____ Date _____



Producer

Consumer



Prey

Predator

Directions: Read the following statements. Then, fill in the blanks using the word bank.

Word Bank

prey organism consumer food chain
ecosystem producers predator

1. An ecosystem is all the living and nonliving things in an area.
2. A food chain is a transfer of energy through a series of organisms that use each other as food.
3. A organism is any living thing.
4. Plants are called producers because they make their own food. They are at the start of a food chain.
5. Animals are called consumers because they eat other plants and animals.
6. A predator is an animal that eats other animals.
7. The animals that predators eat are called prey.

Directions: Draw your own food chain below!

***Drawings will vary.

Must include the following . . .

- 4 organisms total
 - 1 producer
 - 1 consumer
 - 1 prey
 - 1 predator
- Example
 - leaf off a plant (producer) – rabbit (consumer) – coyote (prey) – lion (predator).