

1. Lesson Plan Information	
<b>Subject/Course:</b> Science	<b>Name:</b> Grace Myers
<b>Grade Level:</b> 4	<b>Date:</b> 14 Feb 11 <b>Time:</b> 9:40-10:20 pm
<b>Topic:</b> Life Systems	<b>Length of Period:</b> 40 mins

2. Expectation(s)
<p><b>Expectation(s) (Directly from The Ontario Curriculum):</b></p> <ul style="list-style-type: none"> <li>➤ Build food chains consisting of different plants and animals, including humans.</li> <li>➤ Identify animals that are carnivores, herbivores, or omnivores.</li> <li>➤ Classify organisms, including humans, according to their role in a food chain (e.g., <i>producer, consumer, decomposer</i>).</li> <li>➤ Demonstrate an understanding of food chains as systems in which energy from the sun is transferred to producers (plants) and then to consumers (animals).</li> </ul> <p><b>Learning Skills (Where applicable):</b></p>

3. Content
<p><b>What do I want the learners to know and/or be able to do?</b></p> <p>Definitions:</p> <p>Producer: A producer is an organism that relies on sun and water to create its own energy.</p> <p>Consumer: A consumer is a living thing (organism) that relies on the feeding of other living things for energy/survival.</p> <p>Decomposer: An organism that gets its energy from dead/decaying parts of other organisms.</p> <p>Carnivore: An organism that gets its energy and nutrition requirements mainly from animal tissue.</p> <p>Herbivore: An organism that get its energy and nutrition requirements exclusively from plant material.</p> <p>Omnivore: An organism that gets its energy and nutrition requirements from both animal and plant tissue.</p> <p><b>Today learners will:</b></p> <p>Demonstrate an understanding of food chains as systems by building food chains consisting of different plants and animals and classifying organisms as producers/consumers, carnivores/herbivores/omnivores.</p>

4. Assessment (collect data) / Evaluation (interpret data) (Recording Devices (where applicable): anecdotal record, checklist, rating scale, rubric)
<p><b>Based on the application, how will I know students have learned what I intended?</b></p> <p><i>Formative Assessment.</i> The teacher will assess the students' group work by the quality and accuracy of their final food chain/web. The web must have at least 8 producers/consumers. It must start with plants, sunlight and water. The facts are gathered from research projects and books, not just guesses.</p>

5. Learning Context
<p><b>A. The Learners</b></p> <p><b>(i) What prior experiences, knowledge and skills do the learners bring with them to this learning experience?</b></p> <p>Students have been working on individual projects that will help them with this task. They can use the information gathered about their specific animal to</p> <p>In Grade 3, students have learned about plant life and why plants are essential to humans and animals.</p> <p><b>(ii) How will I differentiate the instruction (content, process and/or product) to ensure the inclusion of all</b></p>

**students? (Must include where applicable accommodations and/or modifications for learners identified as exceptional.)**

16 Grade 4s – 9 boys 7 girls

Groups:

1. Lexi, Zach, Daniel, Laura
2. Yamin, Stephen, Jiya, Aidan
3. Dominic, Max, Maria, Trinity
4. Janelle, Andrea, Luke, Jordan

Write reminders/instructions on the board in clear steps as a visual reminder.

Keep an eye on Yamin, Jordan and Janelle for participation.

Give Janelle the option of doing the activity in a pair with Andrea, but encourage her to work with the group.

### **B. Learning Environment**

Regular classroom. Shared reading will take place on the carpet and groups will go to desk areas or floor space to work on their food webs.

### **C. Resources/Materials**

Science and Technology books (Addison-Wesley, Gr. 4)

Old magazines

Scissors

Glue

Large paper

Books for research

## **6. Teaching/Learning Strategies**

## INTRODUCTION

**How will I engage the learners? (e.g., motivational strategy, hook, activation of students' prior knowledge, activities, procedures, compelling problem)**

5 minutes

Read article aloud:

*New Year's Day 2011 will be remembered as the beginning of what has now been coined as "Aflockalypse." The year kicked off with 5,000 dead black birds dropping out of the sky for no apparent reason in Arkansas. A day later, another round of bird deaths were reported in neighboring states.*

*The strange and sudden bird deaths were not isolated to the United States alone. Sweden and Italy also reported large quantities of bird deaths as well. Shortly after the bird deaths, massive fish deaths began happening. Brazil, New Zealand and Maryland reported hundreds of thousands of dead fish were washing up onto the shore. England has reported more than 40,000 crabs washed up on their shores, adding to the strange phenomenon.*

eCanada Now - <http://www.ecanadanow.com/science/2011/01/16/fish-and-birds-dying-in-massive-numbers-all-around-the-world/comment-page-1/>

Let students hypothesize about what could have happened. Prompt students to think about the food chain. Tell them to think about it as we talk about food chains and I will tell them what happened at the end of the day.

## MIDDLE:

**Teaching: How does the lesson develop?**

**How we teach new concepts, processes (e.g., gradual release of responsibility - modeled, shared, and guided instruction).**

20 minutes

Shared Reading: Producers and Consumers

Read title and first paragraph. Ask students to make a prediction about what the text will be about.

*How does this paragraph relate to the title? Do you think as humans we are producers or consumers?*

Read paragraph about plants.

*Does anyone want to change their prediction?*

Read page about consumers.

*So are humans producers or consumers? What kind of consumer are you? Do you know what type of consumer your animal is? Are all animals consumers?*

*So what types of words will I be looking for in your paragraph about your animal's food chain? (consumer, carnivore/omnivore/herbivore, predator/prey).*

Questions from page 20:

What did you have for dinner last night? Describe the food chain created when you go from the sunlight and plants to your dinner plate.

What would happen to the food chain if the sunlight was cut in half?

Many people live in big cities and don't really think about plant and animal habitats. Can humans exist without plants and other animals?

Do you think a community of living things could exist with no producers? No consumers? Only one type of consumer?

Introduce the web-building activity.

**Consolidation and/or Recapitulation Process: How will I bring all the important ideas from the learning experiences together for/with the students? How will I check for understanding?**

3 minutes

Tips for web-building:

*Do not try to have a specific animal in mind as you will spend the whole time looking for that picture. If there is a picture that you really want and can't find it, try drawing it. I recommend looking for pictures first and gathering ideas that way. Remember:*

- Start with a producer - label
- At least 7 consumers - label
- Factual information

**Application:** *What will learners do to demonstrate their learning? (Moving from guided, scaffolded practice, and gradual release of responsibility.)*

15 minutes

Students will make their own food chain by cutting out a variety of pictures from magazines and pasting them on chart paper to make a food web. The pictures must be connected, but not necessarily linear.

**CONCLUSION:** *How will I conclude the lesson?*

7 minutes

Look at the different groups' webs. What do you notice? Did anything surprise you?

If time: What would happen to this web if \_\_\_ went extinct? What would happen if their habitat were cut in half because of land development?

Read results of Arkansas birds article.

## **7. My Reflections on the Lesson**

***What do I need to do to become more effective as a teacher in supporting student learning?***

Good:

- Students were very engaged in the news piece – asked me to bring in pictures.
- All students actively participated in the hands-on activity.
- Good discussion about how food gets to our dinner plates.

Needs Improvement:

- Attention during discussion – Letting students read aloud could have caused distractions as some students could not hear properly. Also, students were not interested in specific terms and vocab, I could have presented this differently.
- Not enough time for longer discussions.