

**Lesson Plan Title:**

**Teacher’s Name:** Megan Brady  
**Unit:** Organisms in Their Environment

**Subject/Course:** Science  
**Grade Level:** 7

**Overview of and Motivation for Lesson:**

Students will learn about the cycling of energy through the ecosystem through the visuals of trophic pyramids, food chains, and food webs as well as connection to animals they know.

**Stage 1-Desired Results**

**Standard(s):**

- 7.MS-LS2-3. Develop a model to describe that matter and energy cycle among living and nonliving parts of an ecosystem and that both matter and energy are conserved through these processes

**Aim/Essential Question:**

- How does energy flow through an ecosystem?

**Understanding(s):**  
*Students will understand that . . .*

- energy flows through ecosystems in the shape of food webs and food chains

**Content Objectives:**  
*Students will be able to . . .*

- model food webs, food chains, and trophic pyramids to show energy cycling between producers, consumers (primary, secondary, and tertiary), and decomposers

**Language Objectives:**

ELD Level 4. *Students will be able to . . . in English*

- explain the difference between each level of the trophic pyramid

ELD Level 2. *Students will be able to . . . in English*

- create a diagram showing the flow of energy through the trophic pyramid

**Key Vocabulary**

- energy, producer, consumer, primary consumer, secondary consumer, tertiary consumer, decomposer, food web, food chain, trophic pyramid, trophic level

**Stage 2-Assessment Evidence**

**Performance Task or Key Evidence**

- Students will complete an exit ticket at the end of class to review their understanding of the material covered during the class

**Key Criteria to measure Performance Task or Key Evidence**

- Successful understanding of the material as demonstrated on the exit ticket will determine if students need more reinforcement of the material.

**Stage 3- Learning Plan**

**Learning Activities:**

**Learning Activity 1:**

Students will draw and fill in a trophic pyramid together as a class and discuss the meanings of the different trophic levels. Students will also write the definitions of the trophic levels to go alongside the trophic pyramid. The students will then redraw the trophic pyramid as a food chain to understand how both function.

**Learning Activity 2:**

Students will redraw the trophic pyramid as a food chain in their notes to understand how both function and prepare for the next lesson. The discussion will focus on the trophic levels and relationships between them as a flow of energy through the ecosystem, rather than just as predatory relationships.

**Multiple Intelligences Addressed:**

- Linguistic                       Logical-Mathematical       Musical                               Bodily-kinesthetic
- Spatial                               Interpersonal               Intrapersonal                       Naturalistic

**Student Grouping**

- Whole Class                       Small Group                       Pairs                                       Individual

**Instructional Delivery Methods**

- Teacher Modeling/Demonstration                       Lecture                       Discussion
- Cooperative Learning                                       Centers                       Problem Solving
- Independent Projects

**Accommodations**

Definitions will be shown throughout the lesson and will be verbally explained. Visual examples will also be included as created by the students.

**Modifications**

For blue class, the focus will be on understanding the flow of energy through the ecosystem instead of the specific levels.

**Homework/Extension Activities:**

Matter and energy cycles will be continued in the next lesson.

**Materials and Equipment Needed:**

- Notebooks

*Adapted from Grant Wiggins and Jay McTighe-Understanding by Design*