The Food Chain

Louise Gauthier
TSL 518
Summer, 2017
Introduction
Title: The Food Chain

Grade Level: 4

Target group: Mainstream class with integrated ELL students

Source of written reading material:
- Freeschool. (2016, September 23). *Food Chains, for kids: Food webs, the circle of life and the flow of energy*-Freeschool. [https://www.youtube.com/watch?v=hlq2datPo5m](https://www.youtube.com/watch?v=hlq2datPo5m)
- Food Chains and Webs – [www.bogglesworldesl.com](http://www.bogglesworldesl.com)

Source for lesson:
- Gilbert, B. et al. (2007) Colchester Science Curriculum, Colchester, CT page 40
- Perry, M. (2012). Lesson plan of grade 4 science. Colchester Public Schools, Colchester, CT

Learning Goals:

1. I want my students to know what is in the terrestrial ecosystem.
2. I want my students to know that all living thing depend on each other in order to survive.
3. I want my students to know that all living things produce energy.
4. I want my students to know how to classify organisms by their roles in the food chain.
Lesson 1
# Gauthier, Lesson 1 – The Food Chain

<table>
<thead>
<tr>
<th>Content Objective</th>
<th>Language Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The student will identify definitions related to the food chain.</td>
<td>1. After watching and listening to a video about the food chain, in small groups, students will discuss with a partner, the definition that they wrote for the above vocabulary, then work collaboratively to write a general definition of each of the vocabulary.</td>
</tr>
<tr>
<td>a. Vocabulary students will learn:</td>
<td>2. In small groups students will orally identify and code worksheet examples of these three key vocabulary words: consumers, producers, and decomposers.</td>
</tr>
<tr>
<td>omnivore, herbivore, carnivore, organism, producer, consumer, decomposer, food chain, food web</td>
<td></td>
</tr>
<tr>
<td>2. The student will classify organisms by their roles in the food chain.</td>
<td></td>
</tr>
</tbody>
</table>

## Domain/Topic

<table>
<thead>
<tr>
<th>Speaking: Identify definitions of vocabulary words</th>
<th>Advanced/Fluency Level 5</th>
<th>Intermediate/Fluency Level 4</th>
<th>Speech Emergent Level 3</th>
<th>Early Production Level 2</th>
<th>Pre-Production Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will lead, in small group, using complete sentences, their knowledge of what each organism in the food chain eats.</td>
<td>Students will discuss, in small group, using short phrases their knowledge of what each organism in the food chain eats.</td>
<td>Students will use sentence starters to discuss, in small groups, their knowledge of what each organism in the food chain eats.</td>
<td>Students will discuss, in small groups, using sentence starters and word bank, their knowledge of what each organism in the food chain eats.</td>
<td>Students will discuss, in small groups, using sentence starters and word bank, their knowledge of what each organism in the food chain eats.</td>
<td>With prompting and support, Students will repeat, in small groups, basic information using both verbal and nonverbal pictorial match what each organism in the food chain eats.</td>
</tr>
</tbody>
</table>

## Writing: Collaboratively define

| Students will write a definition of each vocabulary word in cloze activity.     | Students will write a definition of 6 vocabulary words and give and example of each. | Students will write a definition of 6 vocabulary words using sentence starters and word bank. | Students will write a definition of each 3 vocabulary words using sentence starters and a word bank. | Students will show their understanding of 3 vocabulary words by matching pictures to definitions, then copy definitions of each organism into Science notebook. |
### Day 1: Functional/Notional Chart

<table>
<thead>
<tr>
<th>Function</th>
<th>Situation</th>
<th>Expression</th>
<th>Word/Phrase</th>
<th>Grammar</th>
</tr>
</thead>
</table>
| Identify    | The different organisms within the food chain | A(n)\underline{1} is an organism that eats \underline{2}. \underline{3} is \underline{4} that \underline{5}. | 1. Omnivore, herbivore, carnivore  
2. both plants and animals, only plants, only animals.  
3. An organism  
4. an animal or plant  
5. is living | articles – *a, an, the*  
plural nouns – *s, es*  
verb present tense |
| Classify    | The roles of each organism within the food chain. | All organisms need food for energy. \underline{1} need \underline{2} \underline{3}. | 1. Producers, Consumers, Decomposers  
2. the sun’s energy, to eat other organisms, to eat dead organisms.  
3. to make their own food, to get food. | Nouns  
Plural nouns – *s, es*  
Infinitives – *to make, to get* |
| Give Examples | Explain their choices for breakfast. | I eat \underline{1} for breakfast. | 1. cereal, pancakes, waffles, eggs | Nouns |
Gauthier, Lesson 1, The Food Chain

Theme: The Food Chain, Food Web
Original text is in black font
Modified text is in red italics font

Materials needed:
1. Apple TV - https://www.youtube.com/watch?v=pasB5FxhVUk
   a. Turtlediary. (2012, July 30). Food chain and food web lesson – know food chain
2. Apple TV - https://www.youtube.com/watch?v=hLq2datPo5M
3. A copy of Procedure Q1 and Q2 Smartboard display (page 5 and 6)
4. A copy of worksheet Anchor Chart 1-A-1 and 1-A-2 (pages 7 and 8) will be displayed on the Smartboard for a whole class discussion before the lesson begins.
5. A copy of Note Taking Worksheet 1-B1, 1-B2, 1-B3, 1B4,(pages 9 – 12) for each student at his or her proficiency level as indicated at the top of each activity sheet.
6. A copy of worksheet 1C through 1E, (pages 13 – 18) for each student proficiency level 1 through 4.
7. A copy of worksheet 1-F (page 19) for each student who is proficiency level 5.
8. A copy of worksheet 1-G (page20) for each student
9. Each student will need a note book to write definitions

Procedure:

1. Begin by asking students: (5 minutes)
   * Q1: What did you have for breakfast? Use Procedure Q1 (pg.5): Smartboard display (Anticipated responses: eggs, cereal, pancakes, yogurt)
   * Q2: Do you know how that food was made? Use Procedure Q2 (pg.6): Smartboard display (Anticipated responses: Yogurt comes from milk, and cows give us milk. Pancakes are made from flour. Eggs come from chickens. Some students may not eat breakfast or not be able to express where their food comes from. Another possible response may be “From the grocery store.”)
2. Before introducing Anchor Chart 1-A-1 (pg.7), students will watch the following video about the Food Chain. https://www.youtube.com/watch?v=pasB5FxhVUk
   a. Video will be stopped several times throughout the 1 minute and 35 seconds portion that will be shown. This will give students a brief introduction before whole class discussion of Anchor Chart 1-A-1 (pg7).
   b. When the video clip is discussing “producers”, the teacher will
      i. Stop the video point to the word Producer on the Anchor Chart 1-A-1 (pg.7) have students repeat the word and show the picture of a producers. Then have the students complete the Note Taking Worksheet (pg.9 – 12) box 1 about Producers only.
      ii. Then the video clip will resume until the next topic is discussed, “Consumer”, then the video will be stopped, teacher will point to the
word “consumer” on the Anchor Chart 1-A-2 (pg.8), have students repeat the word and show the picture on a “consumer”. Procedure will be repeated until all six categories on the Anchor Chart 1-A (pg.7 and pg. 8) have been discussed.

3. Tell students that not only are organisms dependent on their environments, but they are dependent on each other for food to survive and we are going to investigate this dependence. (5 minutes)

4. Next play video clip #2- Freeschool. (2016, September 23). Food chains, for kids: Food webs, the circle of life, and the flow of energy– Freeschool, listed above and have students take notes about the important terms in the video. (5 minutes)

   a. During this activity, the teacher stops the video at key points, repeats or emphasized vocabulary and definitions, allowing students time to process the information in small groups, on the graphic organizer (1-B1(pg. 9), 1-B29(pg. 10), 1-B3(pg. 11), -1B4(pg.12)). Once students’ process information, they can share and clarify it with their partner.

5. Review important terms that students should have written down. They should have included: produces, consumer, and decomposers. (10 minutes) Working in groups of 3, have students use the worksheets listed below to write definitions for each of the vocabulary terms. Teacher will circulate around the room, focusing on level 1 and level 2 students to ensure students understand directions and answer all questions students may have. (35 minutes)

   a. Worksheet 1C (pg13-15) – Level 1 and level 2 students will cut out word cards and create definitions for only the following three terms: herbivore, carnivore, omnivore. Then transfer sentences to science notebooks. Allowing them time to practice writing complete sentences and orally speaking each sentence to the teacher.

   b. Worksheet 1D(pg.16) – Level 3 students will use sentence starts to write definitions for the following terms: herbivore, carnivore, omnivore, producers, consumers, and decomposers. Worksheets will be added to science notebooks.

   c. Worksheet 1E (pg.17-18) – Level 4 students will make definitions and give examples for the following terms: herbivore, carnivore, omnivore, producers, consumers, and decomposers. Worksheet will be added to science notebooks.

   d. Worksheet 1F (pg.19) – Level 5 students will complete Food Chain and Web Cloze activity. Worksheet will be added to science notebooks.

6. Working in groups of 3, have students work together to complete Food Chain Worksheet 1-A (10 minutes)

Homework:

Students will use the notes from the classroom discussion and video review to complete Food Chain Worksheet 1-G (pg.20) for homework.
What did you have for breakfast?

- Eggs
- Cereal
- Waffles
- Pancakes
- Yogurt
- No breakfast
- Muffin
- Bread and jam
- Fruit
- Tortillas and beans
- Avocados
- Rice
Procedure Q2: Smartboard display

*Where does food come from?*

- **Milk from cows**
- **Bacon from pigs**
- **Eggs from chickens**
- **Bread from wheat**
- **Fruit from trees**
**Anchor Chart: 1-A-1 whole group classroom discussion**

<table>
<thead>
<tr>
<th>Producers</th>
<th>Consumers</th>
<th>Decomposers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make their own food</td>
<td>Get their food from other living plants and animals. Get their energy from other living plants or animals.</td>
<td>Get their food from dead things. Get their energy from dead things.</td>
</tr>
<tr>
<td>Get their energy from the sun.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Consumers

Omnivore

- Some animals, like us, eat both plants and animals. These animals are called omnivores.

Carnivore

- Some animals, like the lion, eat only other animals. These animals are called carnivores.

Herbivore

- Some animals do not eat other animals. They eat grass or large plants. These animals are called herbivores.
**Note Taking Worksheet – 1-B1** – Complete each box while watching the video about the ecosystem. *(Level 1)*

<table>
<thead>
<tr>
<th>Topic: <strong>Herbivore</strong></th>
<th>Topic: <strong>Omnivore</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification: Consumer</td>
<td>Classification: Consumer</td>
</tr>
<tr>
<td><strong>Facts:</strong></td>
<td><strong>Facts:</strong></td>
</tr>
<tr>
<td>A _________ eats only _________</td>
<td>An _________ eats _________ (plant)</td>
</tr>
<tr>
<td>_________ (plants)</td>
<td>and _________ (meat)</td>
</tr>
<tr>
<td><strong>Example:</strong></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td>cow</td>
<td>bear</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic: <strong>Carnivore</strong></th>
<th>Topic: <strong>Decomposer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification: Consumer</td>
<td>Classification: <strong>Decomposer</strong></td>
</tr>
<tr>
<td><strong>Facts:</strong></td>
<td><strong>Facts:</strong></td>
</tr>
<tr>
<td>A _________ eats only _________</td>
<td>A _________ eats only _________ things.</td>
</tr>
<tr>
<td>_________ (meat)</td>
<td>_________ (dead)</td>
</tr>
<tr>
<td><strong>Example:</strong></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td>lion</td>
<td>worm</td>
</tr>
</tbody>
</table>
**Note Taking Worksheet – 1-B2** – Complete each box while watching the video about the ecosystem. *(Level 2)*

<table>
<thead>
<tr>
<th>Topic: <strong>Herbivore</strong></th>
<th>Topic: <strong>Omnivore</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification: Consumer</td>
<td>Classification: Consumer</td>
</tr>
<tr>
<td>Facts:</td>
<td>Facts:</td>
</tr>
<tr>
<td>A ___________ eats only</td>
<td>An ___________ eats ___________ and ___________.</td>
</tr>
<tr>
<td>(plants)</td>
<td>(meat)</td>
</tr>
</tbody>
</table>

Example: 
- cow or lion

<table>
<thead>
<tr>
<th>Topic: <strong>Carnivore</strong></th>
<th>Topic: <strong>Decomposer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification: Consumer</td>
<td>Classification: <strong>Decomposer</strong></td>
</tr>
<tr>
<td>Facts:</td>
<td>Facts:</td>
</tr>
<tr>
<td>A ___________ eats only</td>
<td>A ___________ eats only ___________ things.</td>
</tr>
<tr>
<td>___________.</td>
<td>(dead)</td>
</tr>
</tbody>
</table>

Example: Circle the correct one.
- lion or worm

Example: Circle the correct one.
- worm or lion
**Note Taking Worksheet – 1-B3** - Complete each box while watching the video about the ecosystem. *(Level 3)*

<table>
<thead>
<tr>
<th>Topic: <strong>Herbivore</strong></th>
<th>Topic: <strong>Omnivore</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification: Consumer</td>
<td>Classification: Consumer</td>
</tr>
<tr>
<td><strong>Facts:</strong> A _______ eats only _______.</td>
<td><strong>Facts:</strong> An _______ eats _______ and _______.</td>
</tr>
<tr>
<td><strong>Example:</strong> A _______ is an example of a _______.</td>
<td><strong>Example:</strong> A _______ is an example of a _______.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic: <strong>Carnivore</strong></th>
<th><strong>Classification: Decomposer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification: Consumer</td>
<td>Classification: <strong>Decomposer</strong></td>
</tr>
<tr>
<td><strong>Facts:</strong> A _______ eats only _______.</td>
<td><strong>Facts:</strong> A _______ eats only _______ things</td>
</tr>
<tr>
<td><strong>Example:</strong> A _______ is an example of a _______.</td>
<td><strong>Example:</strong> A _______ is an example of a _______.</td>
</tr>
</tbody>
</table>

Other interested information: I thought ____________ was interesting because ____________
**Note Taking Worksheet – 1-B4** – Complete each box while watching the video about the ecosystem. *(Level 4 and 5)*

<table>
<thead>
<tr>
<th>Topic: <strong>Herbivore</strong></th>
<th>Topic: <strong>Omnivore</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification: Consumer</td>
<td>Classification: Consumer</td>
</tr>
<tr>
<td>Facts:</td>
<td>Facts:</td>
</tr>
<tr>
<td>Example:</td>
<td>Example</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic: <strong>Carnivore</strong></th>
<th>Classification: <strong>Decomposer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification: Consumer</td>
<td></td>
</tr>
<tr>
<td>Facts:</td>
<td>Facts:</td>
</tr>
<tr>
<td>Example:</td>
<td>Example:</td>
</tr>
</tbody>
</table>

**Other interested information:** I thought __________________________ was interesting because ___________________________________________ ___________________________
**Worksheet 1C - Level 1 and 2 students:** Instructions – Level 2 students will work with level 1 students to cut out each word card and create a definition for the following vocabulary words: Omnivore, herbivore, carnivore. Then both level 1 and level 2 students will copy their sentences into their science notebooks.

<table>
<thead>
<tr>
<th>A carnivore</th>
<th>is</th>
</tr>
</thead>
<tbody>
<tr>
<td>An herbivore</td>
<td>is</td>
</tr>
<tr>
<td>An omnivore</td>
<td>is</td>
</tr>
<tr>
<td>an animal</td>
<td>that eats</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>an animal</td>
<td></td>
</tr>
</tbody>
</table>
only animals.

only plants.

both plants and animals.

The Food Chain

Example: A herbivore is an animal that eats only plants.
**Worksheet 1D: Level 3 students:** Instructions: Use sentence starters and word bank to create definitions for the following vocabulary words: herbivore, carnivore, omnivore, producers, consumers, decomposers.

**Animal Feeding Strategies**

Make a definition of the following underlined words. Please write in complete sentences. Use the example below as your guide for your answers.

Example: A ________________ is an animal that ________________.

A **herbivore** is an animal that **eats plants.**

<table>
<thead>
<tr>
<th>Word bank</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>eats plants</td>
<td>eats both plants and animals</td>
<td>eats other animals</td>
</tr>
<tr>
<td>makes food</td>
<td>eats dead plants and animals</td>
<td></td>
</tr>
</tbody>
</table>

What is an herbivore?

(1) ____________________________

What is a carnivore?

(2) ____________________________

What is an omnivore?

(3) ____________________________

What is a consumer?

(4) ____________________________

What is a producer?

(5) ____________________________

What is a decomposer?

(6) ____________________________
Worksheet 1E: Level 4 students: Instructions: Make a definition of the following underlined words and give an example of each. Please write each in a complete sentence.

Animal Feeding Strategies

Make a definition of the following words. Please write in complete sentences. Use the example below as your guide for your answers.

Example: A ______________ is an animal that ______________.

A herbivore is an animal that eats plants.

What is an herbivore?

(1) A herbivore is an animal that eats plants. A cow is a herbivore.

What is a carnivore?

(2) __________________________

What is an omnivore?

(3) __________________________

What is a consumer?

(4) __________________________

What is a producer?

(5) __________________________
What is a decomposer?

(6)
Worksheet 1F: Level 5 students: Instructions: Fill in the blanks with the words above the paragraph.

**Food Chain and Web Cloze**

**The Bottom of the Food Chain**

| bottom | trees | sun | grass | chain |

Plants such as _____________ and _____________ are at the _____________ of the food ____________, Plants get their energy from the _____________.

**The Middle of the Food Chain**

| deer | herbivores | rabbits | carnivores |

Animals such as _____________ and _____________ get their energy by eating plants. They are called _____________, which means “plant eaters.” There are many more herbivores on our planet than _____________, which are animals that eat meat.

**The Top of the Food Chain**

| predators | hunt | prey | top | lions |

____________________ such as wolves and _____________ are at the _____________ of the food chain. Predators are animals that _____________ other animals. The animals that they hunt are called _____________. Such animals are both predator and prey.

**The Food Web**

| connected | energy | web | more |

Most animals belong to _____________ than one food chain, which means many food chains are _____________ together. Many food chains together form a food _____________. The food web shows how the sun’s _____________ moves from plants to animals.
Food Chain Worksheet 1 – G

Name: ___________________________  Date: __________

Draw a picture of the source of energy for the Producers.

Circle the Producers

X the Decomposers

Box the Consumers

Draw here!
**Narrative:**

I chose the modifications for this lesson in order to accommodate all students within the classroom. Since this is a mainstream classroom with integrated ELL students, it has been observed that many ELL students were having difficulties keeping up with the pace of the instruction and content vocabulary. Activity 1-A allows all students to build background knowledge before listening to the instructional video on the topic of ecosystems. While watching the video the teacher stops the video often to reinforce the key vocabulary and terms being discussed. This technique allows the teacher to check for understanding throughout the course of the video and address any misconceptions. If a student chooses to process the information with another student in their primary language, this may further enhance comprehension. Student will use Activity worksheet 1-B to take notes. Activity 1-C allows the level 1 students to work with a level 2 students to build grammatically correct sentences using word cards, which also focus on the content vocabulary. Activity 1-D also requires level 3 students to build grammatically correct sentences, however their structure focuses on sentence starters and word banks. Activity 1-E requires level 4 students to not only build definitions but also to give an example of each one of the content vocabulary words. The final activity, 1-F, gives the teacher a clear picture of the level 5 students comprehension of content vocabulary as well as content topic.

The final activity/worksheet is so the teacher can check each student’s comprehension of the topic. This worksheet is reliant on using only picture representations because it is intended to be used at home and many students do not have support for homework after school.
### Content Objective

1. The student will be able to match vocabulary with the appropriate definition, with a partner, using the strategy of "Think/Peer/Share".
   a. Vocabulary students will learn: omnivore, herbivore, carnivore, consumer, producers and decomposer

2. The students will be able to read a short informational text in order to reinforce lesson vocabulary.

3. The students will apply database search strategies to find example of consumers, producers and decomposers.

### Language Objective

1. With a partner, students will orally discuss and match vocabulary picture with its corresponding definition. Then one student from each group will present, to the whole group, their picture/definition match.

2. With a partner, students will read and underline key vocabulary terms and the corresponding definition with an informational text.

3. With a partner, students will write each of the following vocabulary words: herbivores, carnivores, and omnivores, then pasta matching research picture with definition in their science notebooks.

<table>
<thead>
<tr>
<th>Domain/Topic</th>
<th>Advanced/Fluency Level 5</th>
<th>Intermediate/Fluency Level 4</th>
<th>Speech Emergent Level 3</th>
<th>Early Production Level 2</th>
<th>Pre-Production Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading: Identify key terms and definitions in informational text</td>
<td>Students will independently read an informational text and highlight academic vocabulary and corresponding definitions</td>
<td>Students will, with a partner, read an informational text and highlight academic vocabulary and corresponding definitions.</td>
<td>Students will, with guidance and support, read a modified informational text and highlight academic vocabulary and corresponding definitions.</td>
<td>Student will, with prompting and support, read a modified informational text and highlight academic vocabulary and corresponding definitions.</td>
<td>Student will, with teacher assistance, read a modified informational text and highlight academic vocabulary and corresponding definitions.</td>
</tr>
<tr>
<td>Writing:</td>
<td>Student will independently respond to relevant questions and</td>
<td>Students will, with a partner, answer questions and add relevant information</td>
<td>Students will, with guidance and support, answer questions, using</td>
<td>Students will, with prompting and support, respond to simple questions</td>
<td>Students will, with prompting and support, participate in short written</td>
</tr>
<tr>
<td>Function</td>
<td>Situation</td>
<td>Expression</td>
<td>Word/Phrase</td>
<td>Grammar</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------------</td>
<td>-----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Writing:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compare/Contrast</td>
<td>Compare vocabulary terms</td>
<td>A(n) <strong>1</strong> is also a <strong>2</strong></td>
<td>1. An omnivore, herbivore, carnivore.</td>
<td>Noun</td>
<td></td>
</tr>
<tr>
<td></td>
<td>with scientific</td>
<td></td>
<td>2. consumer, producer, decomposer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>classifications.</td>
<td></td>
<td>3. consumers, producers, decomposers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>I know this because <strong>3</strong> need</td>
<td>4. the sun's energy, plants, other animals</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>4</strong> to survive.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convince</td>
<td>Convince reader that</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>something is true.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plural nouns – s, es</td>
<td></td>
</tr>
</tbody>
</table>

**Day 2: Functional/Notional Chart**
Day 2 Lesson Plan –

**Theme:** The Food Chain, Food Web  
Original instructions are displayed in **black font**  
Modified instructions are displayed in **red font**

**Materials:**

2. Magnetic vocabulary cards with matching definition cards. *Vocabulary Cards, Pages 6 - 16*  
7. *Time scheduled for computer lab – reserve with Library Media Specialist*  
8. Index cards with the following website printed on them for students to use as a reference:  
   a. *http://kids.sandiegozoo.org/*  
   b. *http://kids.nationalgeographic.com/animals/*  
   c. *http://pbskids.org/wildkratts/*  
   e. *https://nationalzoo.si.edu/*

**Procedure:**

1. *Before reading the book Who Eats What? by Patricia Lauber, as teacher read aloud, complete the following tasks:*  
   a. Place magnetic vocabulary cards and matching definition cards (2A) pages 6 - 16 on board. Read each vocabulary card (producers, consumer, decomposer) to students explicitly pointing to each word.  
   b. Then read each definition word card, emphasizing the picture cues to help activate students knowledge from prior days lesson, having students repeat vocabulary word and definition.  
   c. Lastly ask for student volunteers to match one animal picture card with its correct classification card (herbivore, carnivore, omnivore). Repeat process until all words are matched. *(10 minutes)*  
2. *In order to refresh students’ knowledge of the food chain, read Who Eats What? by Patricia Lauber *(15 minutes)* This book very clearly pictures each stage of the food*
chain. The teacher will point to each picture while reading the story and repeat the process of what eats what.

   a. Stop often while reading and orally ask students
      i. What is the scientific name of a leaf within the food chain? Correct response: producer
      ii. What is the scientific name of the bird that ate the caterpillar within the food chain? Correct response: A consumer

3. After reading students will read, a short informational text about the food chain, food web. The teacher will work with a small group of level 1 and 2 ELL students to read assigned text. (10 minutes)
   a. Level 1 and 2 students will read The Food Chain leveled book – F by Reading a-z.com – worksheet 2-B (pages 17 – 21)
   b. Level 3 students will read: Lanternfish ESL- How Do Animals Get Energy - modified version – worksheet 2-C (page 22)
   c. Level 4 students will read: Lanternfish ESL – Food Chain and Webs, modified version – worksheet 2-D (pages 23-24)
   d. Level 5 students will read: Lanternfish ESL – Food Chain and Webs, original text – worksheet 2-E (pages 25 – 26)

4. Take students to the computer lab. Have students collect pictures in order to complete the Food Chain Database Search Results Worksheet 2-F – 2-J.
   a. Level 1 and level 2 students will receive only one website
      http://www.whateats.com/ in order to conduct their research, and work as partners to complete worksheet. Food Chain Database Search Results Worksheet 2-F and 2-G (pages 27 and 28)
   b. Level 3 students will receive three websites in order to conduct their research and will work in partnership with another level 3 student. Food Chain Database Search Results Worksheet 2-H. (pages 29 and 23).
   c. Level 4 students will receive all five websites in order to conduct their research and will work with a partner. Food Chain Database Search Results Worksheet 2-I. (page 31 and 32)
   d. Level 5 students will receive all five websites in order to conduct their research and will work with a partner. Food Chain Database Search Results Worksheet 2-J. (pages 33 and 34). (30 minutes)
   e. http://kids.sandiegzoo.org/
   g. http://pbskids.org/wildkratts/
   i. https://nationalzoo.si.edu/
The caterpillar is a consumer.
The leaf is a producer.

1. This is a leaf. A leaf is a plant. The teacher will point.

The chain: Leaf, caterpillar, worm, and hawk are all linked.

Together they form a food chain. Each is a link in the chain.
decomposers

sun
producers

consumers
and animals.

organisms that eat dead plants.

Source of energy for producers.
organism that takes dead things and uses it to make food (energy) for itself and for other organisms.

organism that does not make its own food.
Herbivore: an animal that eats only plants.
Carnivore: an animal that eats only meat.
Omnivore

an animal that eats both plants and other animals.
human

chicken
All plants need food in order to live.

Green plants make food.

They need air, water, and sunlight to make food.

Most plants need soil, too.
All animals need food in order to live.

These animals eat plants.

They are called plant eaters or herbivores.

These animals eat other animals.

They are called meat eaters or carnivores.
Plant eaters and meat eaters are part of a food chain.

Most food chains begin with plants or producers.

The plants make food, which animals eat.

Let's look at a food chain.

A grasshopper eats the leaves of a plant.

The grasshopper grows bigger.

A frog eats the grasshopper.

The frog grows bigger.
A fish eats the frog.

The fish grows bigger.

A small bear catches the fish.

The bear eats the fish.

The bear grows bigger.
This food chain has five parts.

5

The green plant is the first part.

The grasshopper is the second part.

What are the other parts?
How Do Animals Get Energy

Animals 🐾 need energy to live. How do animals 🐾 get energy? Animals 🐾 get energy from food.

Some animals are herbivores. A herbivore is an animal that eats plants. Deer 🐌 and rabbits 🐰 are herbivores.

Some animals are carnivores. A carnivore is an animal that eats animals. Lions 🦁 and wolves 🦊 are carnivores.

Some animals are omnivores. An omnivore is an animal that eats plants and animals. Bears 🐻 and humans are omnivores.
Food Chains and Webs

Plants and animals need energy to live. They need energy to grow. They need energy to fight disease. They need energy to reproduce. How do plants and animals get energy?

Plants and animals get energy from food. Plants make their own food. How do plants make food? Plants get energy from the sun. Plants use sunlight, air and water to make sugar. Plants use this sugar as food when they need energy.

Animals don’t make their own food. They eat other living things for food. Some animals are herbivores. Herbivores are animals that eat only plants. For example, deer are herbivores. Deer eat leaves and grass.

Some animals are carnivores. Carnivores are animals that eat other animals. For example,
cougars are carnivores. Cougars eat deer and other animals.

Some animals are **omnivores**. Omnivores are animals that eat both plants and animals. For example, black bears are omnivores. Black bears eat berries as well as fish like salmon.

**A food chain** shows how the sun’s energy spreads from animal to animal. Oak trees gather the sun’s energy to make seeds called acorns. Squirrels get the sun’s energy by eating some of the acorns. Martens are animals that hunt squirrels. Martens get the sun’s energy by eating squirrels. This is one example of a food chain.

Sometimes, many food chains are connected. This is called a **food web**.
Food Chains and Webs

Plants and animals need energy to live. They need energy to grow. They need energy to fight disease. They need energy to reproduce. How do plants and animals get energy?

Plants and animals get energy from food. Plants make their own food. How do plants make food? Plants get energy from the sun. Plants use sunlight, air and water to make sugar. Plants use this sugar as food when they need energy.

Animals don’t make their own food. They eat other living things for food. Some animals are herbivores. Herbivores are animals that eat only plants. For example, deer are herbivores. Deer eat leaves and grass.

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cougars are carnivores. Cougars eat deer and other animals.

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A food chain shows how the sun’s energy spreads from animal to animal. Oak trees gather the sun’s energy to make seeds called acorns. Squirrels get the sun’s energy by eating some of the acorns. Martens are animals that hunt squirrels. Martens get the sun’s energy by eating squirrels. This is one example of a food chain.

Sometimes, many food chains are connected. This is called a food web.
Write your sentence:

It makes food for animals to eat.

I think the sun is important because it helps plants grow.

Why do you think the sun is important for animals?

<table>
<thead>
<tr>
<th>What does it eat?</th>
<th>Type of Animal</th>
<th>Type of Consumer</th>
</tr>
</thead>
<tbody>
<tr>
<td>______________________</td>
<td>______________________</td>
<td>______________________</td>
</tr>
<tr>
<td>only eats</td>
<td>carnivore</td>
<td></td>
</tr>
<tr>
<td>The only</td>
<td>herbivore</td>
<td></td>
</tr>
<tr>
<td>The _____________</td>
<td>omnivore</td>
<td></td>
</tr>
<tr>
<td>The _____________</td>
<td>______________________</td>
<td>______________________</td>
</tr>
<tr>
<td>______________________</td>
<td>______________________</td>
<td>______________________</td>
</tr>
</tbody>
</table>

Directions: First choose 1 animal from each column from Worksheet 2-C. Next (2) use the Internet source that you received and find information about that animal. Last (3) add a picture of the animal you choose.

Date: ____________________________

Name: ____________________________

Food Chain Database Search Results Worksheet 2 - P (level 1 and 2)
## Food Chain Examples of Consumers Worksheet 2 - G

<table>
<thead>
<tr>
<th>herbivore</th>
<th>carnivore</th>
<th>omnivore</th>
</tr>
</thead>
<tbody>
<tr>
<td>caterpillar</td>
<td>cheetah</td>
<td>ant</td>
</tr>
<tr>
<td>caribou</td>
<td>frog</td>
<td>bear</td>
</tr>
<tr>
<td>cow</td>
<td>hawk</td>
<td>chicken</td>
</tr>
<tr>
<td>deer</td>
<td>lion</td>
<td>fly</td>
</tr>
<tr>
<td>elephant</td>
<td>lynx</td>
<td>human</td>
</tr>
<tr>
<td>giraffe</td>
<td>owl</td>
<td>mouse</td>
</tr>
<tr>
<td>goat</td>
<td>praying mantis</td>
<td>pig</td>
</tr>
<tr>
<td>horse</td>
<td>snake</td>
<td>raccoon</td>
</tr>
<tr>
<td>hummingbird</td>
<td>spider</td>
<td></td>
</tr>
<tr>
<td>lemming</td>
<td>tiger</td>
<td></td>
</tr>
<tr>
<td>parrot</td>
<td>wolf</td>
<td></td>
</tr>
<tr>
<td>rabbit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sheep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture You Found</td>
<td>Type of Animal</td>
<td>Type of Consumer</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Directions:** First (1) choose 2 animal from column 2. Next (2) use the Internet sources that you received and find information about that animal. Last (3) add a picture of the animal you choose.

Date: ____________________________  Name: ____________________________

Food Chain Database Search Results Worksheet 2 - H (level 3)
Why do you think the sun is so important for all of the animals that you choose?
<table>
<thead>
<tr>
<th>Picture You Found</th>
<th>What Does It Eat?</th>
<th>Type of Animal</th>
<th>Type of Consumer</th>
<th>Date:</th>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OmniVore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OmniVore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CarniVore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CarniVore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbivore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbivore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Directions: First (1) choose 2 animals from each column from worksheet 2-C. Next (2) use the Internet sources that you received and find information about that animal. Last (3) add a picture of the animal you chose.

Food Chain Database Search Results Worksheet 2 - I (level 4)
I think the sun is so important for all of the animals that I choose because...

Why do you think the sun is so important for all of the animals that you choose?

Write your answer to the question below.
<table>
<thead>
<tr>
<th>Picture You Found</th>
<th>Type of Animal</th>
<th>What Does It Eat?</th>
<th>Type of Consumer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>omnivore</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>omnivore</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>carnivore</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>carnivore</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>herbivore</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>herbivore</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Directions: First (1) choose 2 animals from each column. Then use the Internet sources that you received and find information about that animal. Last (3) add a picture of the animal you choose.

Date: ____________________________

Name: ____________________________

Food Chain Database Search Results Worksheet 2-6
Write your answer to the question below.

Why do you think the sun is so important for all of the animals that you chose?

I think the sun is important for all of the living things because...
Narrative:

The modifications that have been chosen for this lesson will enable ELL students to participate at a great level. The first activity asks students to match vocabulary words with definitions. This activity, although presented as a whole group activity can also be done in a small group or within a discovery work zone area. Students who are reluctant of speaking in a whole group can still participate as a whole group by just moving the correct definition next to the vocabulary words. The text has all been modified to the students' proficiency level. As shown in the text level 1 students receive more visual support then the higher proficiency level students. As their proficiency level increases the supports are slowly scaled back.

My favorite part of this lesson is the Internet research activities. This activity allows all students to use the computer and feel successful. The lower level students' are given only 1 Internet source which has very simple text and many pictures, so they can easily find the necessary information. The final question is the same for all students, requiring them to think about the connection between the sun and the food chain. All students are writing a response to a higher order-thinking question.
Lesson 3
<table>
<thead>
<tr>
<th>Domain/Topic</th>
<th>Speaking:</th>
<th>Collaboratively define</th>
<th>Writing:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced/Fluency Level 5</td>
<td>Students will lead in small group discussion what each organism in the food chain eats.</td>
<td>Students will independently create a food chain, identify each organism and give each organism the role within the ecosystem.</td>
<td>Students will independently create a food chain and write of detailed description of the role each organism in complete sentences.</td>
</tr>
<tr>
<td>Intermediate/Fluency Level 4</td>
<td>Students will lead in small group discussion what each organism in the food chain eats.</td>
<td>Students will independently create a food chain, identify each organism and give each organism the role within the ecosystem.</td>
<td>Students will independently create a food chain and write of detailed description of the role each organism in complete sentences.</td>
</tr>
<tr>
<td>Speech Emergent Level 3</td>
<td>Students will orally discuss roles of organisms within a food chain.</td>
<td>Students will include, organize each organism and explain their role in the ecosystem.</td>
<td>Students will independently create a food chain, identify each organism and give each organism the role within the ecosystem.</td>
</tr>
<tr>
<td>Pre-Production Level 2</td>
<td>Students will discuss, in small groups, what each organism in the food chain eats.</td>
<td>Students will in small group create a food chain and label each organism within the ecosystem.</td>
<td>Students will with teacher use pictures to create a food chain and write titles with organisms picture.</td>
</tr>
<tr>
<td>Early Production Level 1</td>
<td>With prompting and support, students will discuss, in small groups, with guidance from the teacher, basic information understanding within each organism in the food chain.</td>
<td>Students will in small group create a food chain and label each organism within the ecosystem.</td>
<td>Students will with teacher use pictures to create a food chain and write titles with organisms picture.</td>
</tr>
<tr>
<td>Speech Emergent Level 2</td>
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</tr>
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<td>Students will with teacher use pictures to create a food chain and write titles with organisms picture.</td>
</tr>
</tbody>
</table>
## Day 3: Functional/Notional Chart

<table>
<thead>
<tr>
<th>Function</th>
<th>Situation</th>
<th>Expression</th>
<th>Word/Phrase</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speaking:</strong></td>
<td>Oral explanation of organisms role is ecosystem</td>
<td>I tagged you because I'm a <strong>1</strong> and you are a <strong>2</strong>.</td>
<td>1. consumer, herbivore, carnivore, omnivore. 2. producer, herbivore, omnivore</td>
<td>Noun past tense verb – ‘ed’</td>
</tr>
<tr>
<td><strong>Speaking:</strong></td>
<td>Orally present food chain display to other students</td>
<td>This is a <strong>1</strong>, It is a(n) <strong>2</strong> and it eats <strong>3</strong></td>
<td>1. rabbit, giraffe, lion, human 2. herbivore, carnivore, omnivore 3. only plants, plants and animals, only meat</td>
<td>Nouns adverb - only</td>
</tr>
<tr>
<td><strong>Writing:</strong></td>
<td>While building a food chain chose organisms within a classification and describe its role</td>
<td>This is a <strong>1</strong> it is a(n) <strong>2</strong> and it eats <strong>3</strong></td>
<td>1. rabbit, giraffe, lion, human 2. herbivore, carnivore, omnivore 3. only plants, plants and animals, only meat</td>
<td>Nouns adverb - only</td>
</tr>
</tbody>
</table>
Day 3 Lesson Plan –

Theme: The Food Chain, Food Web

Materials:

3. 200 pieces of green paper cut into 1 inch by 1 inch squares.
4. 16 grasshopper pictures Photos for the Food Chain game 3-A (pages 29 – 32) – printed and laminated
5. 6 wren pictures Photos for the Food Chain game 3-B (pages 33 – 34) – printed and laminated
6. 3 hawk pictures Photos for the Food Chain game 3-C (pages 34 – 35) – printed and laminated
7. 25 large paper clips
8. Food Chain Overhead Worksheet 3-D (page 36)
9. Food Chain Graphic Organizer Worksheet and Word bank 3-E (page 37 and 38)
10. Food Chain Graphic Organizer Worksheet and Word bank 3-F (page 38 and 39)
11. Food Chain Graphic Organizer Worksheet and Word bank 3-G (page 40 and 41)
12. Food Chain Graphic Organizer Worksheet 3-H (page 42)
13. Food Chain Graphic Organizer Worksheet 3-I (page 43)

Procedure:

   a. Prior to reading the book, print out all pictures with corresponding word cards. This should be printed in the back-to-back format so that all short phrases will print on the back of each picture. (pages 5 – 28)
   b. While reading the book, the teacher will:
      i. First, hand out picture cards to 12 students.
      ii. Review and have the students practice the words on the back of the picture cards. Picture cards contain, nouns, short phrases, or simple sentences.
      iii. Next, explain to students that with each page that is read they will stand up and hold up the picture card of the animal that they hear in the story. Example: “This is the water in deep, still water that filled the pond by Anna’s house.” – the first picture card would be held up.
      iv. Then, as one animal eats another, the student who is holding up the picture of the animal that is being eaten will sit down.

2. After the story is read, the teacher will take students outside, to the gym, or a large multi purpose room and play the Food Chain game. (20 minutes)
   a. Procedure for the game. Game is played similar to tag:
i. 200 hundred pieces of green paper will be scattered on the floor.
ii. Students will be assigned the following roles: 16 grasshopper, 6 wrens (birds) and 3 hawks by placing pictures into a box and having students draw one out at a time.
iii. All grasshoppers will only be able to pick up green pieces of paper. Wren will only be able to tag grasshopper, and hawks will be able to tag both grasshopper and wrens.
iv. Students will have 2 minutes to run around and tag the appropriate person or pick up one piece of green paper at a time.
v. At the end of 2 minutes the green paper will be tallied and the number will be placed on a tally chart. Number of remaining grasshoppers will be tallied and placed on the tally chart, and number are remaining wrens and placed on the tally chart, as a whole group discussion – Food Chain Overhead 3-D (page 36)
vi. Students will then answer questions, as a whole group discussion about what the results showed.

3. Students will complete any research from the prior day (5 minutes)
4. Students, working with a partner, will create a food chain poster, with pictures and labels created from prior day’s research, and using a graphic organizer. (15 minutes)
   a. Level 1 students will be given graphic organizer and word box – 3-E (pages 37 and top portion of page 38)
   b. Level 2 students will be given graphic organizer and word box – 3-F (pages 38 and bottom portion of page 39).
   c. Level 3 students will be given graphic organizer and word box – 3-G (pages 40 and 41)
   d. Level 4 students will be given graphic organizer – 3-H (page 42). Students will use their Science notebooks to assist in completing the graphic organizer.
   e. Level 5 students will be given graphic organizer – 3-I (page 43). Students will use their Science notebooks to assist in completing the graphic organizer.

5. Homework: Project will be completed for homework if necessary.
6. Students will be assessed using the Rubric 3-J on page 44.
water in a pond
algae
nymph eating algae
beetle diving
frog eating beetle
snake eating frog
skunk eating snake
owl
raccoon eating eggs
coyote
I am Anna.
Anna's house by the pond.
Photos for the Food Chain game - 3-A grasshoppers
Photos for the Food Chain game - 3-A grasshoppers
Photos for the Food Chain game - 3-C
hawks
Food Chain Overhead 3-D

Directions: As a class, tally up how many organisms there were at the start of the activity and at the end. Fill in the chart and answer the questions.

<table>
<thead>
<tr>
<th></th>
<th>Number at Start</th>
<th>Number at End</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grasshoppers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wrens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hawks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion Questions:

1. Why do you think there were more grasshoppers then wrens at the beginning?

2. Why was the number of hawks the same at the end?

3. Why did the wren take the grasshoppers' bag of grass when he was tagged?
Food Chain – Graphic Organizer - 3-E (level 1)

Directions: Complete the graphic organizer with kind of animals for each circle.

- Decomposers
- Worms
- Carnivore
- Omnivore
- People
- Bear
- Herbivore
- Lions
- Cows
- Goat
- Dog
- Producers
- Trees
- Sun
Food Chain – Graphic Organizer – 3-F (level 2)

Directions: Complete the graphic organizer with types of animals for each category.
Food Chain – Graphic Organizer – 3-G (level 3)

Directions: Complete the graphic organizer with types of animals for each category.
Word Bank for 3-G

leaves     grass     trees     goats

ants       mushrooms bears     eagles

raccoons   dogs       tigers    rabbits
Food Chain - Graphic Organizer - 3-H (level 4)

Directions: Complete the graphic organizer with types of animals for each category. Use your Science notes to find answers.
Food Chain – Graphic Organizer- 3-I (level 5)

Directions: Complete the graphic organizer with types of animals for each category. Use your Science notes to find answers.
# Food Chain Rubric – (Assessment for Poster Project) – 3-J

**Name:** ___________________  **Date:** ________________

<table>
<thead>
<tr>
<th>Category</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Elements</td>
<td>The food chain includes all the required elements as well as additional information.</td>
<td>All required elements are included on the food chain.</td>
<td>All but one, of the required elements are included.</td>
<td>Several required elements are missing.</td>
</tr>
<tr>
<td>Graphics</td>
<td>All graphics are related to the topic and make it easy to understand.</td>
<td>All but one graphic are related to the topic.</td>
<td>Some of the graphics do not relate to the topic.</td>
<td>Graphics do not relate to the topic.</td>
</tr>
<tr>
<td>Labels</td>
<td>All graphics are clearly labeled.</td>
<td>One graphic is missing a label.</td>
<td>Some of the graphics are missing labels.</td>
<td>All graphics are missing labels.</td>
</tr>
<tr>
<td>Presentation</td>
<td>Student spoke giving clear names of each category.</td>
<td>Student gave clear names of each category but made 1 mistake.</td>
<td>Student gave clear names of each category but made 2 mistakes.</td>
<td>Student was not able to give any of the categories, verbally or non verbally.</td>
</tr>
</tbody>
</table>
Narrative:

The following modifications were chosen for this lesson because of the amount of oral instructions that occurs. The first activity requires students to listen to a story. In order to comprehend the read aloud the students are given picture cards with short phrases from the text for students to repeat and act out. This allows students at lower proficiency level to learn new vocabulary, verb tenses, and short sentence structures that are subject, verb, object forms.

The next activity allows the students to role-play what happens in the food chain. Students are assigned to parts of the food chain, reminded about each “actors” role and allowed time to “tag” each other. This lesson includes some very basic math skills, such as making tally charts, completing simple math subtraction facts, and to make predictions and to what would happen if one level of the food chain was missing or eliminated.

The first activity requires students to build the food chain that they just acted out and to create a presentation. They are then asked to orally explain the levels of each part of the food chain. This allows low proficiency level students to use non-verbal presentations skills like pointing, or short phrases or one word to give their presentations and exhibit their new knowledge and new content vocabulary.
Checklists
Unit: Food Chain  
Grammar and Functions Checklist

<table>
<thead>
<tr>
<th>Grammar</th>
<th>Lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nouns</td>
<td>1,2</td>
</tr>
<tr>
<td>Plural nouns</td>
<td>1,2</td>
</tr>
<tr>
<td>Capitalizations of proper nouns</td>
<td>1</td>
</tr>
<tr>
<td>Articles</td>
<td>1,2</td>
</tr>
<tr>
<td>Adverb</td>
<td>2</td>
</tr>
<tr>
<td>Verbs – present tense</td>
<td>1,2,3</td>
</tr>
<tr>
<td>Verb – present participles</td>
<td>3</td>
</tr>
<tr>
<td>Infinitive phrases</td>
<td>3</td>
</tr>
<tr>
<td>Clauses</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Functions</th>
<th>Lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give Examples</td>
<td>1</td>
</tr>
<tr>
<td>Explain</td>
<td>1,3</td>
</tr>
<tr>
<td>Compare/Contrast</td>
<td>2</td>
</tr>
<tr>
<td>Convince</td>
<td>1</td>
</tr>
<tr>
<td>Clarify</td>
<td>3</td>
</tr>
<tr>
<td>Describe (presentation)</td>
<td>3</td>
</tr>
<tr>
<td>SHELTERED STRATEGIES</td>
<td>Lesson 1</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>I. Contextualize Lesson</td>
<td></td>
</tr>
<tr>
<td>I. A. Build and Activate Background Knowledge</td>
<td>p.5,6</td>
</tr>
<tr>
<td>I.B. Develop Vocabulary</td>
<td>p.7,8</td>
</tr>
<tr>
<td>I. C. Use extensive Visuals, Realia, Manipulatives, &amp; Gestures</td>
<td></td>
</tr>
<tr>
<td>I. D. Model (Instructions, Processes)</td>
<td>p.3,4</td>
</tr>
<tr>
<td>I. E. Create Opportunities To Negotiate Meaning</td>
<td>p.5,6</td>
</tr>
<tr>
<td>II. Make Text Comprehensible</td>
<td></td>
</tr>
<tr>
<td>II.A. Intentional Use of Graphic Organizers</td>
<td>p.9-11</td>
</tr>
<tr>
<td>II.B. Modify Written Text</td>
<td>p.13-19</td>
</tr>
<tr>
<td>II.C. Amplify Number of Activities per Text</td>
<td>p.13-19</td>
</tr>
<tr>
<td>III. Make Talk Comprehensible</td>
<td></td>
</tr>
<tr>
<td>III.A. Pace Teacher's Speech</td>
<td></td>
</tr>
<tr>
<td>III.B. Use of Listening Guides</td>
<td>p.9-11</td>
</tr>
<tr>
<td>III.C. Use of Word Walls</td>
<td></td>
</tr>
<tr>
<td>III.D. Frame Main Ideas</td>
<td>p.5,6</td>
</tr>
<tr>
<td>III.E. Check for Understanding</td>
<td>p.13-19</td>
</tr>
<tr>
<td>IV. Change Traditional Classroom Talk</td>
<td></td>
</tr>
<tr>
<td>IV.A. Use Teacher Question and Response Strategies</td>
<td></td>
</tr>
<tr>
<td>IV.B. Practice Instructional Conversations</td>
<td>p.13-15</td>
</tr>
<tr>
<td>V. Engage at Appropriate Language Proficiency Levels</td>
<td></td>
</tr>
<tr>
<td>V.A. Vary Question Techniques based on Student's Language Proficiency level-- in conversations, activities, and assessments</td>
<td>p.16-19</td>
</tr>
<tr>
<td>VI. Give Students Voice</td>
<td></td>
</tr>
<tr>
<td>VI. A. Challenge students to produce extended academic talk</td>
<td>p.13-15</td>
</tr>
<tr>
<td>VI. B. Model Language for Oral and Written Production</td>
<td></td>
</tr>
<tr>
<td>VI. C. Use Group/Pr. Work to Elicit Student Talk; Students as Researchers</td>
<td>p.13-19</td>
</tr>
<tr>
<td>VI. D. Respond to Student's Voice – Writing and Error Correction</td>
<td></td>
</tr>
</tbody>
</table>
Original Lessons
SCIENCE CONTENT STANDARD 4.2

GRADE-LEVEL CONCEPT: ◆ When the environment changes, some organisms survive and reproduce, and others die or move to new locations.

GRADE-LEVEL EXPECTATIONS:

1. Living and nonliving things interact in land and water environments called ecosystems. Every ecosystem has certain conditions ("abiotic factors") and a variety of living things ("organisms") that are adapted for survival in those conditions. Abiotic factors include the quality and amount of air, sunlight, water and soil, as well as the terrain and climate.

2. Organisms depend on other organisms and on the nonliving things in an ecosystem to meet their basic needs for food, water and protection.

3. Plants use energy from the sun to produce their own food from air and water. The type of soil, amount of water and temperature range in an area determine the plants that grow there.

4. Animals that live in an area get their energy and nutrients either directly or indirectly from plants that grow there: herbivores consume only plants, carnivores consume animals, and omnivores consume both animals and plants. Decomposers consume plant and animal waste and remains, returning nutrients to the soil where they are used again by plants.

5. Some of the sun’s energy is transferred from one organism to another when a plant or animal is consumed by another animal. A food chain is a simple model that illustrates the passage of energy from one organism to another. Food webs are more realistic models that show the varied energy-passing relationships among plants and animals in an ecosystem.

6. Environments are always changing. Some changes occur naturally (examples include disease outbreaks, violent storms, forest fires sparked by lightning). Other changes are caused by human activity (examples include establishing conservation areas, passing laws to control pollution, clearing forests for agriculture or construction, applying chemicals to lawns and crops, burning fossil fuels, etc.).

7. Changes in an environment are sometimes beneficial to organisms and sometimes harmful. For example, a newly created beaver pond provides habitat that attracts frogs and raccoons to an area; but trees, earthworms and moles are no longer able to survive in the area.

8. When environments change, some organisms can accommodate the change by eating different foods or finding different shelters (for example, hawks nest on city buildings and consume pigeons and rats). Those organisms that can no longer meet their basic needs die or move to new locations.

KEY SCIENCE VOCABULARY: ecosystem, organism, abiotic factors, nutrient, producer, consumer, herbivore, carnivore, omnivore, decomposer, food chain, food web

CMT EXPECTED PERFORMANCES

B 10. Describe how animals, directly or indirectly, depend on plants to provide the food and energy they need in order to grow and survive.

B 11. Describe how natural phenomena and some human activities may cause changes to habitats and their inhabitants.
Day 1 Lesson Plan –

Theme: The Food Chain, Food Web

Objective:
1. The student will recognize definitions related to the food chain.
2. The student will classify organisms by their roles in the food chain.

Materials needed:
1. Apple TV - https://www.youtube.com/watch?v=hLq2datPo5M
2. A copy of Worksheet 1-A for each student
3. A copy of Worksheet 1-B for each student
4. Each student will need a note book to write definitions

Procedure:

1. Begin by asking students: *(5 minutes)*
   * What did you have for breakfast?
   * Do you know how that was made?
2. Introduce student to the term of an ecosystem. Eco means environment.
3. Tell students that not only are organisms dependent on their environments, but they are dependent on each other for food for survival and we are going to investigate this dependence. *(5 minutes)*
4. Play the above video and have students take notes about the important terms in the video. *(5 minutes)*
5. Review important terms that students should have written down. They should have included: producer, primary consumer, secondary consumers, and tertiary consumers. *(10 minutes)*
6. Working in groups of 3, have students work together to complete Food Chain Worksheet 1-A *(10 minutes)*

Homework:

Students will use the notes from the classroom discussion and video review to complete Food Chain Worksheet 1-B for homework.
Food Chain Worksheet 1-A

Name____________________ Date________________

Draw a picture of the source of energy for the Producers.

Circle the Producers

X the Decomposers

Box the Consumers

Draw here!
Food Chain Worksheet 1-B

Name ______________________        Date ________________

In class today, we discussed the definitions of terms related to a food chain.

Food chain — Series of steps by which energy is obtained, used, and changed by living things. Example — sunlight helps grain to grow, the grain feeds cattle, and humans eat the cattle.

Producer — Organism that takes non-living matter (energy from the sun, water, minerals, carbon dioxide) and uses it to produce food (energy) for itself with surplus for other organisms. Example — plants.

Consumer — Does not produce own food. Example — animals.

 Decomposer — Organism which feeds off dead plants and animals and reduces their remains to minerals and gases again. Examples — worms, bacteria.

Read the above definitions, then fill in the blanks.
(Beware! One term is used twice as an answer!)

1. The first link in a food chain, which uses non-living matter to produce food (energy), is called a ______________________.

2. ______________________ feed off dead plants and animals.

3. The sequence of events where food (energy) is passed from one organism to another is called a ______________________.

4. A ______________________ is the process by which energy is obtained, used, and changed by organisms.

5. An organism that does not produce its own food is a ______________________.
Day 2 Lesson Plan –

Theme: The Food Chain, Food Web

Objective:

The student will apply database search strategies to find example of consumers.

Materials:

2. Time scheduled for computer lab – reserve with Library Media Specialist

Procedure:

1. In order to refresh students' knowledge of the food chain, read Who Eats What? by Patricia Lauber *(20 minutes)*
   a. Stop often while reading and orally ask students
      i. What is the scientific name of an apple within the food chain?
      ii. What is the scientific name of a cow within the food chain?
2. Take students to the computer lab. Have students collect pictures in order to complete the Food Chain Database Search Results Worksheet 2-A, 2-C. *(30 minutes)*

Homework:

Students will create a small poster of a food chain.
Food Chain Database Search Results Worksheet 2-A

Name: ___________________________  Date: ________________

On the chart below, record the results of your search.

<table>
<thead>
<tr>
<th>Type of Consumer</th>
<th>Keyword</th>
<th>Name of Article and Source</th>
<th>Example you found</th>
</tr>
</thead>
<tbody>
<tr>
<td>herbivore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>herbivore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>carnivore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>carnivore</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Food Chain Database Search Results Worksheet 2-C

Name: ___________________________  Date: ___________________________

On the chart below, record the results of your search.

<table>
<thead>
<tr>
<th>Type of Consumer</th>
<th>Keyword</th>
<th>Name of Article and Source</th>
<th>Example you found</th>
</tr>
</thead>
<tbody>
<tr>
<td>omnivore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>omnivore</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>omnivore</td>
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<tr>
<td>omnivore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>omnivore</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Who Eats What?
Food Chains and Food Webs
by Patricia Lauber • illustrated by Holly Keller

LET'S READ AND FIND OUT SCIENCE
A caterpillar is eating a leaf on an apple tree.
Later the caterpillar is spotted by a wren. It becomes part of the wren’s dinner.

Still later the wren is eaten by a hawk.
Leaf, caterpillar, wren, and hawk are all linked.
Together they form a food chain. Each is a link in
the chain.
Day 3 Lesson Plan –

Theme: The Food Chain, Food Web

Objective:

The students will apply their new knowledge of the by taking a list of organisms and put them into a food chain.

Materials:

1. 200 pieces of green paper
2. Use of the multipurpose room
3. Timer
4. Worksheet 3-A
5. Signs for grasshoppers (13), shrews (6) and hawks (3)
6. Ziploc bags

Procedure:

1. Tell student that they will be acting out a food chain in the multipurpose room.
   a. Assign each student a role and give each student the sign of the appropriate role.
   b. Go over the instructions for the food chain game with the class.
      i. When the teacher says, "Go" the grasshoppers go into the marked off area and gather up as much grass (green paper) as possible into their bags.
      ii. After about 30 seconds, the teacher tells the shrews to go. The shrews need to find a grasshopper and tag him. Once the grasshopper is tagged, he needs to turn over his food (bag of grass) to the shrew and goes to the sidelines. During this time, the grasshoppers should be trying to avoid getting eaten (tagged) by the shrews, but will also continue to try to gather more grass.
      iii. 30 seconds after the shrews are released, the hawks will be released. They try to tag the shrews and collect each bag(s) of food. While shrews are being chased, they will still try to capture grasshoppers and grasshopper will still try to collect grass.
      iv. Continue for 30 – 40 seconds and say, "STOP"
      v. Have students who "have not been eaten" to count how many pieces of food are in their bags.
2. Game De-briefing: As a class, fill out the chart. On the chart, list how many organisms in each category you started with and how many you ended with.
This will be completed by keeping the students who were "tagged" separate.

*(60 minutes)*

Homework:
Student will complete Food Chain Worksheet 3-A.
Food Chain Worksheet 3-A

Name ___________________________ Date ___________________

Directions: Use the words in the word box below to fill in the food chain.

| Shrew | Grasshopper | Sun | Hawk | Grass |

Diagram:

- Shrew
- Grasshopper
- Sun
- Hawk
- Grass