Round One Science Lesson
Food Web
Miss Leintz

Grade: 5th

Subject: Science

Materials:
- Flip Chart with food chain and food web
- printed out plants and animals large
- small printed plants and animals
- construction paper
- glue sticks
- markers

Technology Needed:
- projector

Instructional Strategies:
- ☐ Direct instruction
- ☐ Guided practice
- ☐ Socratic Seminar
- ☐ Learning Centers
- ☐ Lecture
- ☐ Technology integration
- ☐ Other (list)
- ☐ Peer teaching/collaboration/ cooperative learning
- ☐ Visuals/Graphic organizers
- ☐ PBL
- ☐ Discussion/Debate
- ☐ Modeling

Guided Practices and Concrete Application:
- ☐ Large group activity
- ☐ Independent activity
- ☐ Pairing/collaboration
- ☐ Simulations/Scenarios
- ☐ Other (list)
- ☐ Hands-on
- ☐ Technology integration
- ☐ Imitation/Repeat/Mimic

Explain:

Standard(s)

Performance Standard 5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

LS2.A: Interdependent Relationships in Ecosystems

-The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plant parts and animals) and therefore operate as "decomposers." Decomposition eventually restores (recycles) some materials back to the soil. A healthy ecosystem is a balanced ecosystem. Newly introduced species can damage the balance of an ecosystem.

Objective(s)

By the end of the lesson, the student will be able to explain how the food chain works within the ecosystem by developing food webs.

Bloom's Taxonomy Cognitive Level: Understanding

Differentiation

Below Proficiency:
- Students would have less animals that they would be expected to put in their food web.
- Students will be paired with someone who is above or emerging proficiency.

Above Proficiency:
- Students will have more animals that they will be expected to put in their food web.
- Students will be expected to use the terms we used, consumer and producer.

Approaching/Emerging Proficiency:
- Lesson will be left as is.

Modalities/Learning Preferences:
- Visual: Students will see food chains and food webs.
- Auditory: Students will be able to hear groups talk about food webs.
- Kinesthetic: Students are using their hands to create a food web.

Classroom Management- (grouping(s), movement/transitions, etc.)
- Students will start at the carpet. They will stay at the carpet until they pick their partner, they will then grab their materials and go somewhere in the room.
- Students may pick their partners.
- Pairs will match with groups who have matching color construction paper.
- Students will be given about thirty seconds to transition from carpet to work spot, and work spot to carpet.

Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)
- Level 0 voice when I am talking, level 2 when they are answering a question
- Level 1 voice when working with their partners
- Level 2 voice when presenting to the other group
- Students are expected to use walking feet in the classroom.
- Students are expected to use materials with respect.
- When listening to another group present, the other students are expected to listen at a level 0 voice.

Minutes	Procedures
15 minutes	**Set-up/Prep:** • Print pictures of producers, consumers, and decomposers • Sort them into stacks for the groups to use • Get out construction paper • Get out glue sticks • Get out markers • Cut out large animals to use on the board.
3 minutes	**Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)**

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	• "Last week at the zoo, you guys saw a lot of plants and animals. What kinds of animals did you see and what kinds of things did you learn about them?" ○ Call on students to respond • "Well today we are going to learn about how all of these animals and plants are connected in our ecosystems. An ecosystem is the community of organisms that live around in the environment around us."

10 minutes	**Explain: (concepts, procedures, vocabulary, etc.)**
	• "Today we are going to learn about food webs. Food webs are the food chains that all interlock with each other to form what is called a food web. Remember that a food chain is a chain of plants and animals that are dependent on each other for food in order to survive. Here is an example of a food chain."
	  ○ Show and explain an example of the food chain
	• "Within food chains and food webs we have what are called producers and consumers. A producer is something that serves as a source of food for other organisms. In this case, the producer would be this plant. There are many different kinds of consumers within a food chain or a food web. We have some consumers that are herbivores, and consumers that were carnivores. Finally, we have what are called decomposers. This would be like bacteria or fungi that break down dead animals and convert them into nutrients from the soil, which would nourish the soil which plants live on and the cycle starts all over."
	• "Before we move on, let's talk about the animals you learned about at the zoo and put them in one of these three categories."
	  ○ Write producer, consumer, and decomposer on the board and categorize the student's animals.
	• "Now, let's take a look at an example of a food web. Turn and talk to your neighbor about how you think that this food web works or about how it looks differently from a food chain."
	  ○ Give students time to turn and talk.
	• "Let's go through it. Food webs are basically a lot of food chains that are all interacting with each other. All of the lines on a food web represent what that particular animal can eat. Let's look at a couple of examples."
	  ○ Go through a couple of examples and show how they eat certain food and certain animals eat them.
	• "Now, we are going to make an example of a food web up on the board. What do you think out of these pictures a producer would be? Which ones of these would eat this producer? What animals might eat the consumer that are herbivores?"
	  ○ Go through making the food web drawing the lines for the students to see how a food web works.
	  ○ "Today, you and a partner are going to use the basket of materials I provide to create a food web of your own. I have a different stack of animals and plants for each group, so all of your food webs are going to look a little bit different from each other. You will use a marker to connect the animals to each other and you will use glue to glue the animals to the piece of construction paper. Does anyone have any questions?"

20 minutes	**Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)**
	• "I am call you and your partner's name. When I call your name you will come and grab your materials. You will also need a glue stick, a scissors, and a marker. You and your partner will then go find a spot in the classroom and please get to work right away. If you have a question, please just raise your hand. I will be coming around to check on how your group is doing."
	  ○ Call students names, have them get their supplies, and they will go find a sport where they can work on their food web.
	• As the students are working, go around and talk to the groups, asking:
	  ○ Which ones are the producers? Which are the consumers? Do you have any decomposers? How do you know? How do you think these two animals connect?
	• "I need everybody to freeze, you have two minutes to finish your food webs.
	• After two minutes, "Okay, I need everybody to come back to the carpet in one minute. Please put your glue sticks, scissors and markers away. Sit at the carpet beside your partner."

10 minutes	**Review (wrap up and transition to next activity):** • "Now that everybody is at the carpet, I need you and your partner to find the groups with the matching color construction paper. Three groups will go together. I want each group to explain their food web to the other group. Explain which ones are producers and which are consumers as well as how each animal is connected. Each group will have about three minutes to present. When I say time, the other group will present their food web and also will have three minutes, finally when I have you switch, the last group will present. I want to remind you to be good audiences to your peers, listen to what they are saying and be respectful." ○ Give each group about three minutes to present. While they are presenting, go around and listen to a little bit of their presentations, doing a checklist of who really is grasping the concept. • After the groups have finished presenting to each other, collect the papers and transition to the next activity.

Formative Assessment: (linked to objectives, during learning)	**Summative Assessment (linked back to objectives, END of learning)**

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• **Progress monitoring throughout lesson (how can you document your student's learning?)**
  • Check students understanding by asking questions while going around and asking students questions throughout.
  • Check students understanding as we are doing the class food web.
  • Students will hand in their food webs.
	• Are the students able to explain their food webs to the other group? (as the group are presenting to each other, take the time to listen to each group present)
	  ○ Use a checklist to document
	  ○ + means had a great understanding
	  ○ –means had an okay understanding
	  ○ 0 means no understanding

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):

Round 1, Science Reflection

Teaching the students about food webs was a lot of fun and super engaging. It seemed that all of the students loved getting to talk about animals and which animals might eat another animal. Right from the start, we talked about the animals that they saw at the zoo last week. I wish I would have maybe had them talk with a neighbor first, because either they did not remember a lot about it or else they were just being kind of shy. When teaching something like this again, I would definitely have them do a turn and talk first.

At the beginning we looked at a food chain, I think this was helpful for them and made the jump to a food web a little bit easier. They seemed to remember a lot about producers, consumers and decomposers which was helpful when looking at the food web. When we were talking about what kinds of things would be considered decomposers, they brought up a vulture. I told them that I thought a vulture would be a consumer because it is eating other animals and not turning it into nutrients from the soil. Right away, I kind of second guessed myself and felt a little bit worried that I was teaching them wrong. My practicum teacher jumped in and said that she told the class wrong (that a vulture would be a decomposer) and told the class that she made a mistake and that a vulture was a consumer. This made me feel a little bit better about it, because I had done some research on it and I definitely knew what the right answer was.

The students did a great job making the class food web and had great reasoning behind all of their answers. When creating their own food webs, I had paired the students up on my own. I am glad that I did this because all the partners did a great job working together and the classroom management piece seemed easier. If I would know the students a bit better, I might let them choose, but I am glad I picked for them. While they were working on their webs, they were excellent. I told them their voice level was one (a whisper) and they did awesome with that. When I noticed that a lot of groups were finishing kind of early, I had everybody freeze and I told them that they were going to have to present to other groups and that I wanted them to practice their presentations. This was a great way to have the early finishers still be working on something food web related. However, I think that if I were to do this lesson again, I would have them all practice. I could tell that the groups that practiced definitely felt more prepared and confident in their food webs than those who were just finishing up their web.

The lesson was a little bit shorter than I had originally anticipated, but we made it work, I think if I were to teach this lesson again, I would need to maybe just lessen our time frame or add something small to the lesson. I am glad that the lesson went well and that by the end, the students were able to explain food webs so well, I felt that they really had an understanding of producers, consumers, and decomposers and how they all interact within the ecosystem.