

Brandon Valley School District
District Learning Plan
April 27-May 1, 2020

Grade 5 Science



Brandon Valley School District Distance Learning Plan

LESSON/UNIT: Fantastic Food Chains

SUBJECT/GRADE: Science/5th

DATES: April 27-May 1, 2020

<p>What do students need to do?</p> <p><u>Link to BV instructional video for week of April 27 - May 1, 2020</u></p>	<p>Monday: Plant Review Quizizz over photosynthesis and parts of the flower. Students will go to quizizz.com/join and type in the game code: 604896 to play. Make sure to put your full name and team color (example: Mrs. Sershen/5th red). If you don't have the internet, the quiz will also be available on paper.</p> <p>Tuesday: Read the Food Chains-Day 2 handout and complete the questions that go with the article.</p> <p>Wednesday: Read A Little More about Food chains-Day 3 handout and complete the questions that go with the article. This handout is all about herbivores, omnivores, and carnivores!</p> <p>Thursday: Read Fantastic Food Food webs-Day 4 handouts and complete the questions that go with the article.</p> <p>Friday: Complete Create a Food Web Activity-Day 5, you will be completing a food web. Either fill the names of the organisms in the diagram or you may draw it out on paper. When you have completed the food web, use the food web you created, along with your knowledge of food webs to answer the 7 questions.</p>
<p>What do students need to bring back to school?</p>	<ol style="list-style-type: none"> 1. Your food web creation 2. Your answers to the food web 7 questions.
<p>What standards do the lessons cover?</p>	<p>5-PS3-1: Use models to describe energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.</p>
<p>What materials do students need? What extra resources can students use?</p>	<p>Need: Plants review Quizizz (online or packet), Food chains-Day 2 handout, A Little More about Food chains-Day 3, Fantastic Food Webs-Day 4, and Create a Food Web Activity-Day 5.</p>
<p>What can students do if they finish early?</p>	<p>*Mysteryscience.com</p> <p>*Food Chain Game: http://www.sheppardsoftware.com/content/animals/kidscorner/games/foodchaingame.htm</p> <p>*Virtual Owl Pellet Dissection: http://kidwings.com/virtual-pellet/</p>
<p>Who can we contact if we have questions?</p>	<p>Brandon Valley Intermediate School</p> <p>Principal- Mr. Skibsted- Nick.Skibsted@k12.sd.us</p> <p>Assistant Principal- Mr. Pearson- Rick.Pearson@k12.sd.us</p> <p>Science Teachers:</p> <p>Mrs. Sershen- gina.sershen@k12.sd.us (red team)</p> <p>Mr. Stroh- nick.stroh@k12.sd.us (white team)</p> <p>Mr. Metzger- tyson.metzger@k12.sd.us (blue team)</p> <p>Mr. Wiese- alex.wiese@k12.sd.us (silver team)</p>

Notes: Have a great week!

Instructional materials are posted below (if applicable)

Brandon Valley School District

QUIZIZZ

NAME : _____

CLASS : _____

DATE : _____

Plants Review

15 Questions

1. What are the 3 reactants of photosynthesis? The reactants are the things needed for photosynthesis to occur.

- ☐ a) oxygen, glucose, sunlight ☐ b) sunlight, oxygen, water
☐ c) water, oxygen, carbon dioxide ☐ d) carbon dioxide, sunlight, water

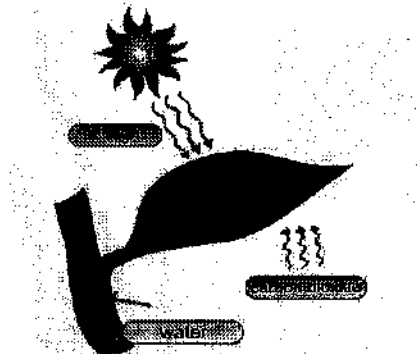
2. What are the 2 products of photosynthesis? The products are the things made in the process of photosynthesis.

- ☐ a) water, sunlight ☐ b) glucose, carbon dioxide
☐ c) oxygen, glucose ☐ d) sunlight, oxygen

3. What is the main purpose of photosynthesis?

- ☐ a) To make food ☐ b) To create energy
☐ c) To release oxygen ☐ d) To absorb sunlight

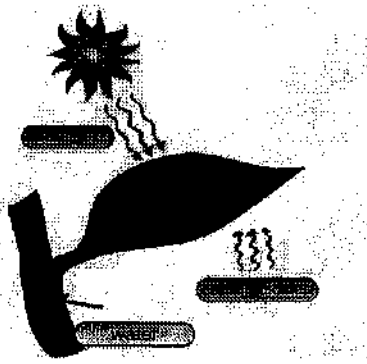
4.



What is the tiny openings that let in the carbon dioxide needed for photosynthesis?

- ☐ a) stomata ☐ b) xylem
☐ c) phloem ☐ d) chloroplast

5.



What pigment captures/absorbs sunlight?

- ☐ a) stomata ☐ b) chlorophyll
☐ c) chloroplast ☐ d) phloem

6. What gas is released by plants during photosynthesis?

- ☐ a) sulfur ☐ b) carbon dioxide
☐ c) oxygen ☐ d) hydrogen

7. Why are plants important to life on Earth?

- ☐ a) They make our world more beautiful ☐ b) They make the planet look green
☐ c) They use carbon dioxide and give us oxygen ☐ d) They provide shade for insects

8. The main source of energy for all life comes from ____.

- ☐ a) the Earth ☐ b) the moon
☐ c) the sun ☐ d) the food we eat/make

9. The male part of the flower is known as the ____.

- ☐ a) stamen ☐ b) pistil
☐ c) ovary ☐ d) petal

10.



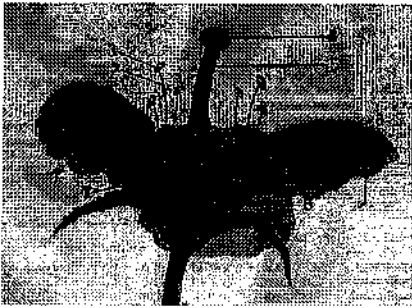
What is #1 pointing to?

- ☐ a) ovary ☐ b) petal
☐ c) stigma ☐ d) stamen

11. The female part of the flower is known as the ____.

- ☐ a) stamen
- ☐ b) anther ☐ c) filament
- ☐ d) pistil

12.



What is #3 pointing to?

- ☐ a) stigma ☐ b) filament
- ☐ c) ovary ☐ d) anther

13. What is the sticky part of the flower that catches pollen?

- ☐ a) style ☐ b) stigma
- ☐ c) ovary ☐ d) petal

14. Which part attracts insects and mammals to the flower

- ☐ a) sepal ☐ b) petal
- ☐ c) ovaries ☐ d) style

15.



What is #2 pointing to?

- ☐ a) anther ☐ b) filament
- ☐ c) ovary ☐ d) style

Science Shorts

Food Chains



Plants and animals need energy to survive. Energy is what allows us to grow and move around. Humans, and other animals, eat food to get the energy we need. But where does all that energy come from? Believe it or not, all the energy on Earth comes from the sun.

The sun provides all the energy we need to live and grow, but we can't eat sunlight! In order for animals to get the energy they need from the sun, it must make its way up the **food chain**. A food chain describes how different organisms eat each other to pass along energy. A food chain always starts with plants. Plants can use the energy from the sun in a process called **photosynthesis**. The plants store the sun's energy. When an animal eats the plant, the animal gets that energy. When another animal eats that animal, the energy is passed up the food chain once again.

There are many different food chains on Earth and even **food webs**, which are more complicated than food chains. Here is a good example of a simple food chain: sun shines on the African grasslands. The grass gets its energy from the sunlight. A zebra comes along and eats the grass. The zebra gets energy from the grass. A lion hunts and eats the zebra. The lion gets energy from the zebra. In this way, energy is passed from the sun to the grass to the zebra and finally to the lion.

There are names to help describe different positions in the food chain. A **producer** makes the energy for the ecosystem. Plants are the producers in any food chain because they turn sunlight into energy. **Consumers** don't make energy, they just take it from lower links on the food chain. Animals are consumers. In the African grasslands example, the zebra and the lion are both consumers. The zebra is a primary consumer because it gets its energy directly from the producer (the grass). The lion is a secondary consumer because it is farther up the food chain. The energy has to pass from the grass to the zebra and then finally to the lion. **Decomposers** eat dead plants and animals. Worms, bacteria, and fungi are examples of decomposers. They put energy back into the soil for plants to use again.

Food Chain Questions

- Where does all of the energy on Earth come from?

- A _____ describes how different organisms eat each other to pass along energy.
- Describe how photosynthesis is part of the food chain.
- Give one example of a food chain in the reading above.
- There are many different parts of a food chain. Fill in the chart below with information about each.

	Definition	Example
Producer		
Consumer		
Decomposer		

- Tell if each example is a producer, consumer, or decomposer

*Tree: _____

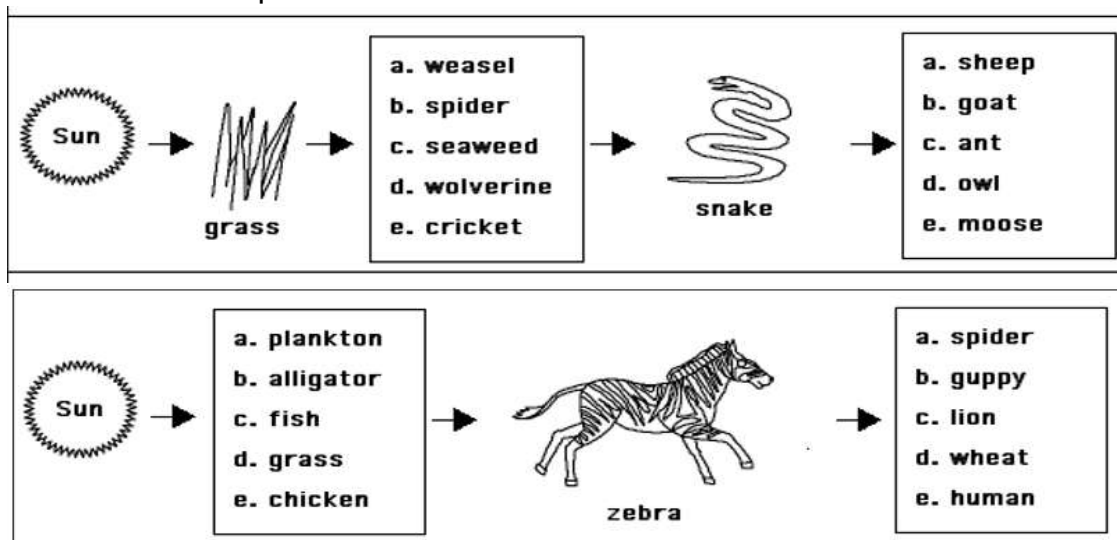
*Human: _____

*Flower: _____

*Worm: _____

*Tiger: _____

- Circle the correct part of the food chain.



A little more about food chains!

As we review food chains, keep this information in mind!

- The sun provides food for the producers/plants. Producers use light from the sun to make their own food (photosynthesis).
- There are several types of consumers:
 - *Herbivores: consumers that eat producers (plants)
 - *Omnivores: consumers that eat producers (plants) and consumers (animals)
 - *Carnivores: consumers that eat only consumers (animals)
- Decomposers: consumers eat only dead organisms and they break down the dead organisms and add nutrients to the soil
- The arrows in a food chain point in the direction the food is moving, or from the food to the eater.

Questions

1. Tell if each is a herbivore, omnivore, or carnivore:

*Lion-_____

*Horse-_____

*Bear-_____

*Rabbit-_____

*Wolf-_____

*Deer-_____

2. Fill in the blank food chain below using the information from the paragraph.

Grass is an example of a producer in a prairie ecosystem. A producer is an organism that is able to make its own food through photosynthesis. Many different kinds of organisms feed on grasses in the prairie. A rabbit, for example, is a herbivore. Herbivores only eat plants. Rabbits get their energy from eating the grasses in the prairie. A hawk is considered a carnivore. A carnivore eats other consumers. Hawks feed on rabbits and other small consumers.

Sun-_____ ➡ _____ ➡ _____

3. Create your own food chain. It must include at least 4 organisms. Label the names of the organisms and draw an arrow from the food to the eater.

Fantastic Food Webs

In all ecosystems there are many food chains. Most plants and animals are parts of several food chains. The overlapping food chains in an ecosystem make up a food web! A food web is more complex than a food chain. A food web shows the many different food chains in an ecosystem.

*Look at the food web example below. A hawk might eat a mouse, rabbit, or snake. A rabbit may eat wildflowers or grass. Food webs show where organisms get their energy and how the food chains are all overlapping. 😊

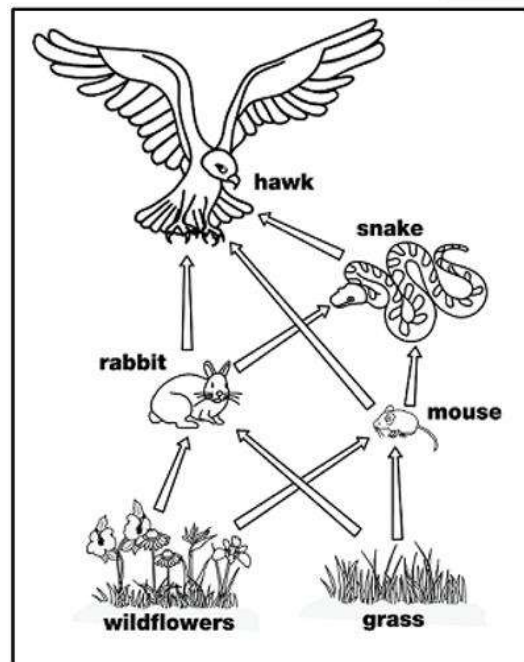
Questions:

1. Use the information below to answer the following questions:

*A **food web** shows how energy is passed on from one living thing to the next. It shows how the food chains overlap in an ecosystem.

***Producers** are living things that make their own food through photosynthesis. The producers are at the bottom of the food web.

***Consumers** are living things that eat other living things. Examples of consumers are herbivores, omnivores, and carnivores!



- What are the producers in the food web?

- What are the consumers in the food web?

- What does a mouse eat? _____

- What organisms do snakes eat?

- What are 2 food chains you see in this food web?

Create a Food Web

Name: _____
Date: _____

Directions: Construct a model of a food web by writing the organisms' names into the boxes below, and then answer the questions on the next page in full sentences.



Frog



Grass



Eagle



Grasshopper



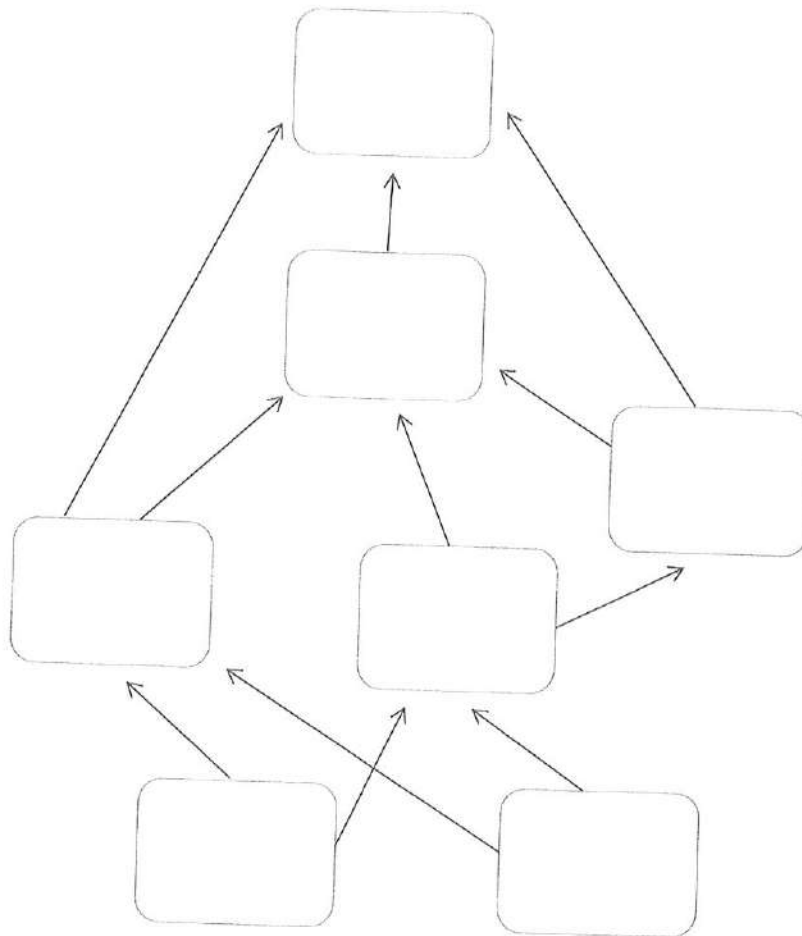
Snake



Rabbit



Lettuce



Directions: Use the food web you created to answer questions 1-4 below.

1. Which organisms are producers in this food web?

2. Which organisms are carnivores? Explain why they are considered carnivores.

3. Explain why the disappearance of the grasshopper would hurt the frogs in the ecosystem more than the snakes.

4. What are 3 food chains in your food web?

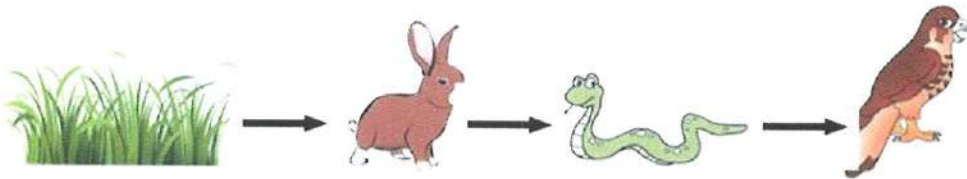
1.

2.

3.

Multiple Choice Questions:

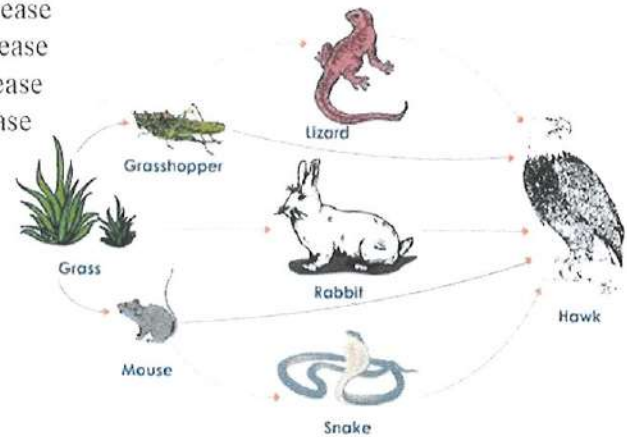
5. If a disease strikes the snake population in the food chain shown, what will happen to the populations of hawks?



- A. The population of hawks would decrease
B. The population of hawks would increase
C. The population of hawks would stay the same.

6. In the food web, if the population of grasshoppers increased, what would be a result?

- A. The population of rabbits would decrease
- B. The population of lizards would decrease
- C. The population of snakes would increase
- D. The population of grass would decrease



A Food Web in a Grassland Ecosystem With Five Possible Food Chains

7. Trapping and hunting has greatly reduced the population of snakes. What is the most likely effect of this change in the ecosystem?

- A. The population of frogs will increase
- B. The population of mice will decrease
- C. The population of ants will increase
- D. The population of frogs will decrease

