



Week of April 13th- 17th	Grade Level: 7th      Team: All
Directions: Choose either a High Tech, Low Tech, or No Tech activity for each subject. All work should be submitted to the teacher of that content.	

	<b><i>HIGH TECH (USE WITH LAPTOP)</i></b>	<b><i>LOW TECH (USE WITH CELL PHONE)</i></b>	<b><i>NO TECH (NO TECHNOLOGY)</i></b>	<b><i>EXTENSION ACTIVITIES (OPTIONAL)</i></b>
Science	<p>Lesson: <b>What are the interactions and adaptations that help animals survive in ecosystems?</b></p> <p><b>Day 1:</b> Answer the following question “What do you know already about adaptations?” and “What do animals need to survive?” “What is the connection between adaptations and mutations?”</p> <p>Living things change <a href="https://www.youtube.com/watch?v=xDSFIRunlrU">https://www.youtube.com/watch?v=xDSFIRunlrU</a> Answer Canvas discussion question (or Padlet?): favorite animal + adaptation + how that adaptation helps it survive</p>	<p>Lesson: <b>What are the interactions and adaptations that help animals survive in ecosystems?</b></p> <p><b>Day 1:</b> Answer the following questions</p> <ul style="list-style-type: none"> <li>• “What do you know already about adaptations?”</li> <li>• “What do animals need to survive?”</li> <li>• “What is the connection between adaptations and mutations?”</li> </ul>	<p>Lesson: <b>What are the interactions and adaptations that help animals survive in ecosystems?</b></p> <p><b>Day 1:</b> After reading the ‘<u>Adapting to Survive</u>’ passage, answer the following questions on paper:</p> <ul style="list-style-type: none"> <li>• What things do animals need to survive? Name at least three.</li> <li>• In your own words, what is an adaptation?</li> <li>• Give an example of an adaptation that your favorite animals has and tell me how it helps the animal survive.</li> </ul>	<p><b>ADAPTATION EXTENSION:</b></p> <p>Once Upon a Time in Adaptationland...</p> <p>Create a storyboard using this template (<a href="https://media.newseLA.com/article_media/extra/Storyboard.pdf">https://media.newseLA.com/article_media/extra/Storyboard.pdf</a>)</p> <p>or an online storyboard program (storyboardthat.com). Tell the story of an animal who has a mutation that makes him/her different from the parents. In your story, the mutation should be helpful--an ADAPTATION. Show how that adaptation helps the animal survive.</p>

	<p><b>Day 2:</b> From your Launchpad go to IXL and complete the Introduction to Adaptations quiz <a href="https://www.ixl.com/science/grade-4/introduction-to-adaptations">https://www.ixl.com/science/grade-4/introduction-to-adaptations</a></p> <p><b>Day 3 and 4:</b> Use these links <a href="http://www.crickweb.co.uk/ks2science.html#foodchains">http://www.crickweb.co.uk/ks2science.html#foodchains</a> and <a href="https://www.cserc.org/sierra-fun/games/build-food-chain/">https://www.cserc.org/sierra-fun/games/build-food-chain/</a> about food chains Create your own food chain and identify the producer, consumer and decomposer.</p> <p><b>Day 5:</b> Catch up to complete assignments</p>	<p><b>Day 2:</b> From your Launchpad go to IXL and complete the Introduction to Adaptations quiz <a href="https://www.ixl.com/science/grade-4/introduction-to-adaptations">https://www.ixl.com/science/grade-4/introduction-to-adaptations</a></p> <p><b>Day 3 and 4:</b> Use these links <a href="http://www.crickweb.co.uk/ks2science.html#foodchains">http://www.crickweb.co.uk/ks2science.html#foodchains</a> and <a href="https://www.cserc.org/sierra-fun/games/build-food-chain/">https://www.cserc.org/sierra-fun/games/build-food-chain/</a> about food chains Create your own food chain and identify the producer, consumer and decomposer.</p> <p><b>Day 5:</b> Catch up day to complete assignments</p>	<p><b>Day 2:</b> List some ways that humans adapt in our environment by completing the table.</p> <p><b>Day 3 and 4:</b> Using the resources on food chains, draw your own food chain labeling the <b>producers, consumer and decomposer</b></p> <p><b>Day 5:</b> Catch up day to complete assignments</p>	
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## Adapting to Survive

Cross-Curricular Focus: Life Science



Living things adapt to their environment so they can **survive**. An organism **adapts** when it develops a **behavior** that makes it more likely to survive. It can also adapt by forming a physical characteristic or body part that helps it survive.

In a forest biome, some trees grow taller than the other plants around them. This lets them reach the sunlight. Growing taller is an adaptation that helps trees survive. Shorter plants have adapted with their behavior. They have learned to live in the shade with less sunlight.

Animals in the forest have a wide variety of adaptations. Monkeys have long tails. They can use them almost like another hand. This helps them swing quickly through the tops of trees. They can even do this while holding their babies or gathering food. Giraffes need to reach leaves at the tops of tall trees. Having a long neck is an adaptation that allows them to do this.

Some animals' adaptations prevent other animals from wanting to eat them. A skunk's horrible smell makes larger animals choose something else to eat. Even plants sometimes protect themselves in this way. Roses and acacia trees both have dangerous thorns. The thorns prevent animals from eating their leaves.

After reading the 'Adapting to Survive' passage, answer the following questions:

- 1) What things do animals need to survive? Name at least three.
- 2) In your own words, what is an adaptation?
- 3) Give an example of an adaptation that your favorite animal has and tell me how it helps the animal survive.

## What is a Food Chain?

All living things need food to give them the energy to grow and move. A food chain shows how each living thing gets its food. It shows who is eating who. The arrow means "is eaten by".



Grass ---->



Grasshopper ---->



Toad ---->



Snake ---->



Hawk

Grass is eaten by Grasshopper is eaten by Toad is eaten by Snake is eaten by Hawk

A food chain always starts with a green plant ...

(All plants are PRODUCERS.)

..... which is eaten by an animal.

( All the animals in a food chain are CONSUMERS)

A food chain ends with a predator.

(The predator is at the top of the food chain)

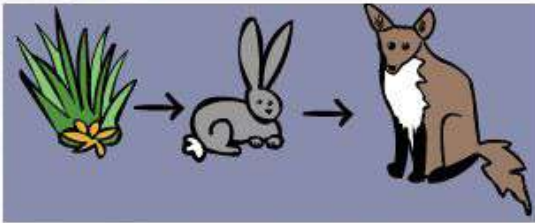


The Sun is very important for all living things, without the sun the plants would not grow, without plants there would be no animals



## Food Chains and Food Webs

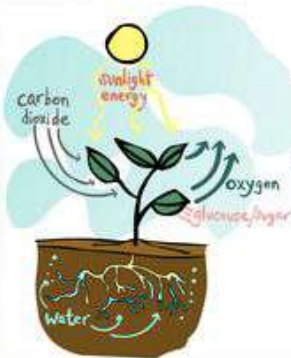
A food web consists of all the food chains in a single ecosystem. Each living thing in an ecosystem is part of multiple food chains. Each **food chain** is one possible path that **energy and nutrients** may take as they move through the ecosystem.



All of the interconnected and overlapping food chains in an ecosystem make up a **food web**.

Organisms in food webs are grouped into categories called **trophic**

**levels**. Roughly speaking, these levels are divided into **producers** (first trophic level), **consumers**, and **decomposers** (last trophic level).

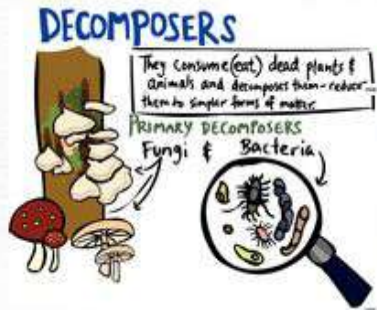


### Producers:

- Producers make up the first trophic level.
- Producers make their own food and do not depend on any other organism for nutrition. This process called photosynthesis to create food (a nutrient called glucose) from sunlight, carbon dioxide, and water.

### Consumers:

- Consumers eat producers, they are the second level in the trophic level.
- There are three types of consumers: herbivores are animals that eat plants, carnivores are animals that eat herbivores and sometimes other carnivores and omnivores are animals that eat plants and other animals.



**Decomposers:** Fungi and bacteria play an important role in nature. They break down the unused dead material and turn them into nutrients in the soil, which plants use to grow. They are an important part of the Food Chain.

Name \_\_\_\_\_ Class \_\_\_\_\_

How Does a Human Adapt to the Environment?

**Directions:** Think about some ways in which humans must adapt to the environment in order to survive. Complete the table below about human adaptations and survival. An example has been provided for you.

Adaptation	Physical OR Behavioral Adaptation?	How does the adaptation help the animal survive in its environment?
Ex. Goose bumps on arms when going outside	physical	It is the body's way to stay warm.