



# Introduction To Virtual Learning

## HS Biology/ Biomagnification

May 20, 2020



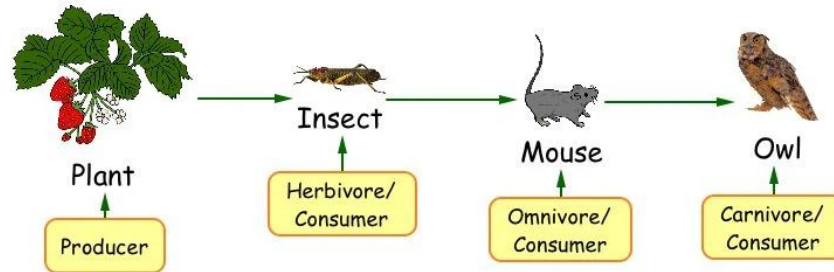
HS/General Biology  
Lesson: Wednesday, May 20 2020

**Objective/Learning Target:**  
**Describe the causes and effects of Biomagnification**

**Warm Up #1:** In your own words, what is a food chain?

**Warm Up #2:** Look at the diagram below. What is transferred from the left to the right?

## The Food Chain Of An Owl

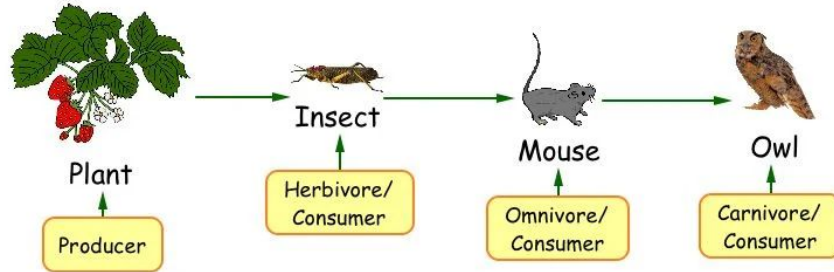


## Warm Up **Answers**

Warm Up #1: **Answers commonly include a diagram that shows feeding relationships between a group of organisms**

Warm Up #2: **Energy**

### The Food Chain Of An Owl



## Lesson Activity: Video Notes

To begin, get out a sheet of paper and something to write with.

In this part of the lesson, you will be taking notes over the concept of biomagnification. We will begin with a video over this topic- your task is to take careful notes over biomagnification, how it happens and its consequences.

When you are ready, click here to see the [Amoeba Sisters Biomagnification Video](#)

## **Lesson Activity: Practice Questions**

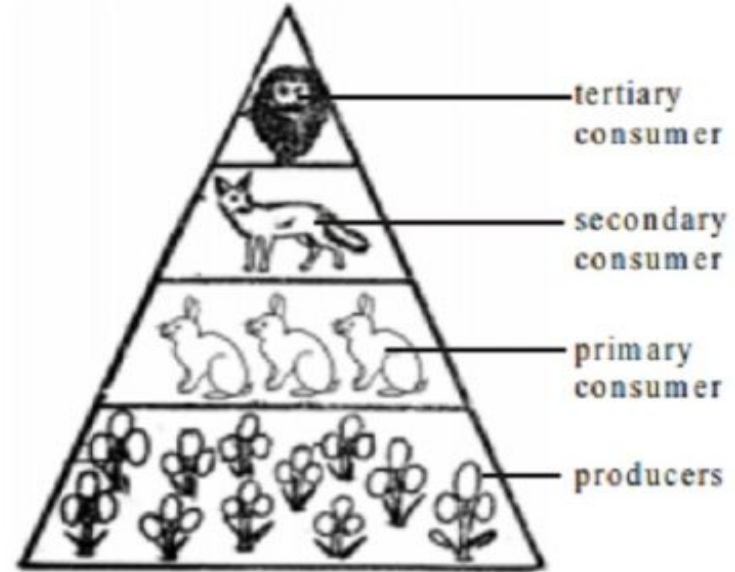
- 1. What is a producer?**
- 2. What is a primary consumer?**
- 3. What is a secondary consumer?**
- 4. What is an ecological pyramid?**
- 5. What is a trophic level?**
- 6. What is biomagnification?**

## Lesson Activity: Practice Questions

1. What is a producer? **An organism that converts sunlight and water into sugar and oxygen**
2. What is a primary consumer? **An organism that eats producers.**
3. What is a secondary consumer? **An organism that eats primary consumers**
4. What is an ecological pyramid? **A diagram that represents the predatory relationships in a food chain**
5. What is a trophic level? **A level on the food pyramid- consisting of one niche of consumer, the size represents population.**
6. What is biomagnification? **The accumulation of a toxin as a progression up the food pyramid**

## Lesson Activity: Diagram Practice

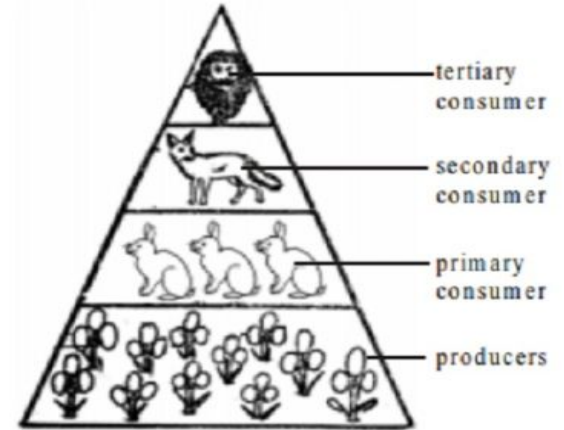
1. If a gardener sprays a toxin on the producers, how will the toxin reach the primary consumers?
2. If the toxin reaches the primary consumers, then how will it reach the secondary consumers?
3. If a tertiary consumer eats a secondary consumer, how much toxin will it get?





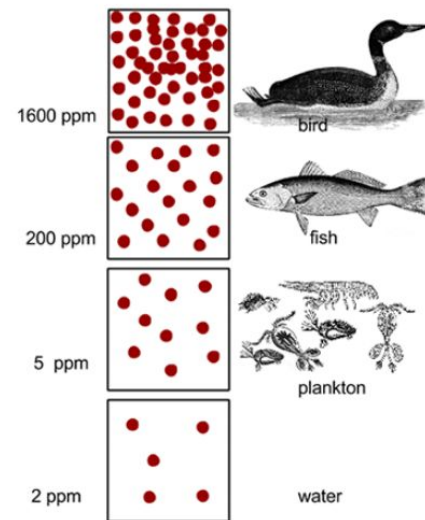
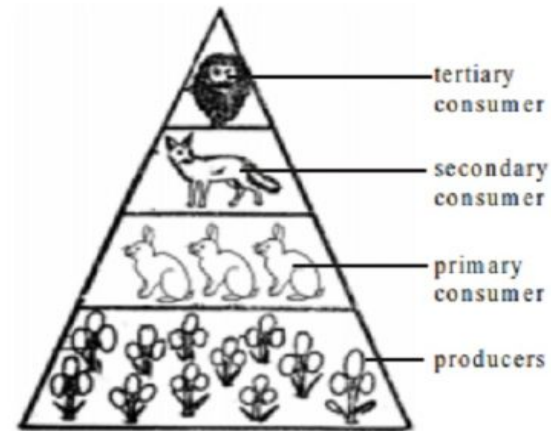
## Lesson Activity: Diagram Practice **Answers**

1. When the consumers eat the producers, the toxin in the producer's tissues gets transferred to the consumer's tissues.
2. When the secondary consumers eat the primary consumers, the toxins will be absorbed by the secondary consumers
3. The tertiary consumer will get the toxins from all of the steps below them in the food pyramid. Toxins accumulate on each step.



## Common Misconceptions about Biomagnification

1. Only 10% of the energy from any level gets passed on to the next level. For this reason, animals must consume more mass on each level.
2. Harmful impacts of biomagnification can be reversed. By simply monitoring what we put into our environment, we can reduce the amount of toxins in our food web.





## Additional Resources

Want to know more, check out these resources:

[Biology Junction: Biomagnification](#)

[National Geographic: Biomagnification](#)

[What's In the Fish- Biomagnification](#)