

Grade 7 Science
Week of October 5 – October 9

Ecosystems

An **ecosystem** is a system that has formed through the **interactions** among different living and non-living parts of an area.

Non-living parts of an ecosystem are things such as soil, water, wind, sun, rocks, etc.

Interactions are the effect that living and non-living things have on one another.



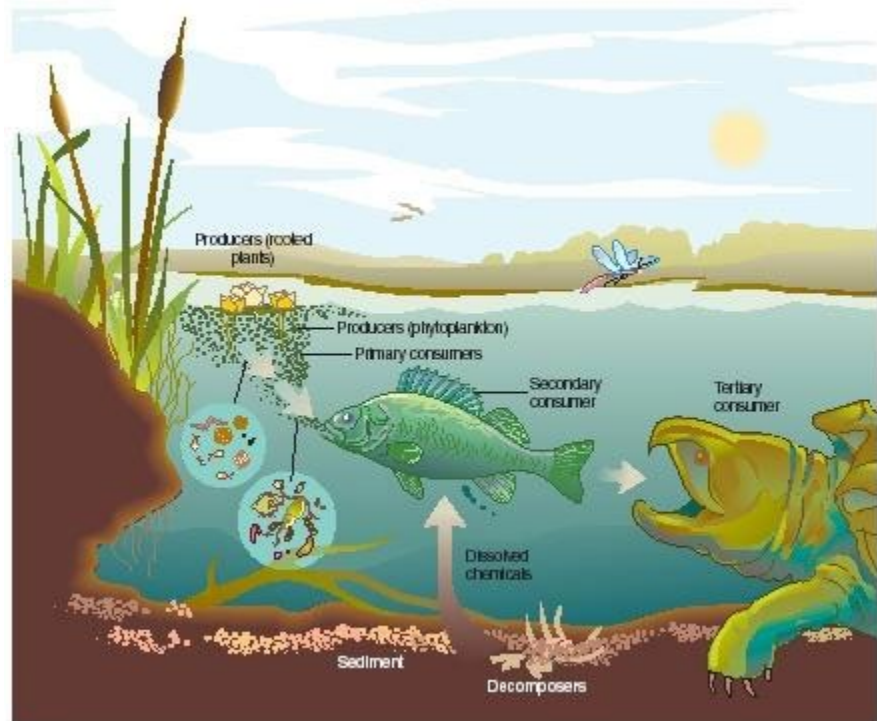
Interactions



Food Web: https://youtu.be/0NcPs_SG7fQ

There are **five** categories of interactions between living organisms that occur in an ecosystem.

1. **Producers**
2. **Primary Consumers**
3. **Secondary Consumers**
4. **Tertiary Consumers**
5. **Decomposers**



Producers

Producers are individuals that make their own food. They get their energy to produce their own food from the **non-living** parts of the ecosystem, such as the soil and the sunlight.

Producers also provide food for other living things.

For example, plants are producers.



Primary Consumers



Primary Consumers are organisms that eat producers. They get their energy from digesting the producers they have eaten. They are also called herbivores.

For example, a bison is a **primary consumer**.

Secondary Consumers

Secondary Consumers are organisms that eat primary consumers. These organisms are also called carnivores.

Some secondary consumers eat both primary consumers and producers. These organisms are called omnivores.

A lion is a carnivore while its prey, the wildebeest, is a herbivore.



Tertiary Consumers



Tertiary Consumer is an organism that eats secondary consumers. They can also eat primary consumers and producers.

A tertiary consumer is at the top of the food chain. This means that no other animals will eat them.

An orca is a tertiary consumer.

Interactions Change

An organism's interaction can change depending on what it eats. Bears are a good example of an organism that changes its interaction with the environment.

When a bear eats a **primary consumer** (like moose) it is a **secondary consumer**.

When a bear eats a **producer** (like berries) it is a **primary consumer**.

When a bear eats a **secondary consumer** (like salmon) it is a **tertiary consumer**.



Omnivores and Carnivores

Omnivores are organisms that eat meat (primary and secondary consumers) as well as plants (producers).

Bears are omnivores. They eat primary consumers like moose, as well as producers like berries.



Carnivores are organisms that only eat meat (primary and secondary consumers).



Decomposers

Decomposers are organisms that break down dead or decaying organisms.

For example, worms and fungi are decomposers.



Complete the Following

Ecosystems

Ecosystems are formed through _____ between living and non-living things in a particular area.

Terms to know:

- 1.
- 2.

Interactions

There are 5 interactions:

- 1.
- 2.
- 3.
- 4.
- 5.

Producers

Producers make their own _____. They also provide _____ for other organisms. _____ are an example of producers.

Primary Consumers

Primary consumers need _____ to get energy. Another name for a primary consumer is a _____.

Secondary Consumers

Secondary consumers need _____ to get energy. There are two types of secondary consumers, _____ and _____.

Tertiary Consumers

Tertiary consumers eat all secondary consumers, primary consumers and _____.

They are at the _____ of the food chain.

Omnivores and Carnivores

Omnivores eat _____ and _____.

Bears are _____.

Carnivores eat _____.

Interactions can change

An organisms interaction with the environment can change depending on what it _____. A good example of an organism that changes interactions is a _____.

List how the interactions change:

- 1.
- 2.
- 3.

Decomposers

Organisms that break down dead or decaying organisms are called _____.

A good example is a _____

Decomposition

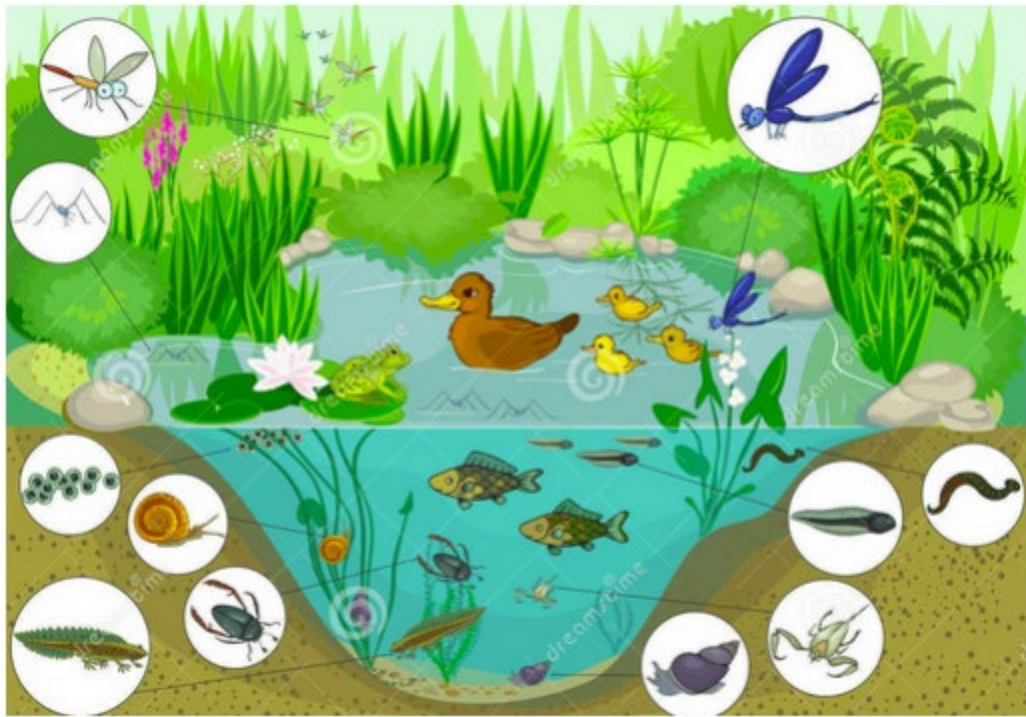
Decomposition is breakdown or decay of _____.
Another definition of decomposition could be _____ of living things.

Producers feed off the _____ that is produced by decomposition.

Photosynthesis

Plants interact with the environment in a very important way. They use _____ to convert water, sunlight and carbon dioxide to create _____ and release _____ into the environment.

Practice: Interactions



1. From the above ecosystem give an example of a producer, primary consumer, secondary consumer, tertiary consumer, and decomposer.

2. From the examples you provided above. Are any of those organisms capable of changing their interaction? If so which ones and what interaction are the also capable of displaying?

3. Why is it important that organisms interact with the non-living parts of the ecosystem?