Grade 7 Science

Week of October 19 – October 22

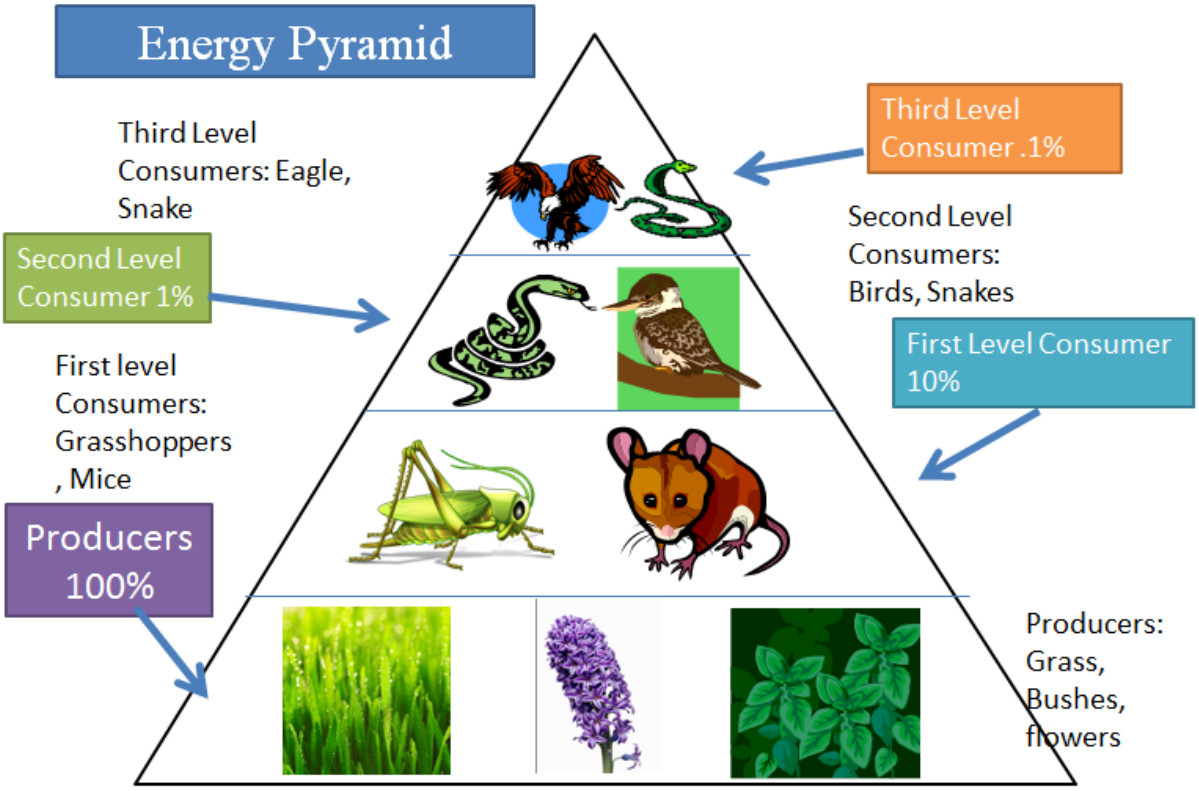
Energy Flow

Energy Pyramids

Food provides energy for the organism to survive.

Trophic Level Pyramid: https://youtu.be/nFwODCe8vYA

The production of energy begins with the **producers** and is passed along to organisms from there. When the **primary consumers** (first level consumer) eat producers they get energy which is then passed on to **secondary consumers** (second level consumer) when they are eaten. The top of the pyramid are the **tertiary consumers.**



Dependencies

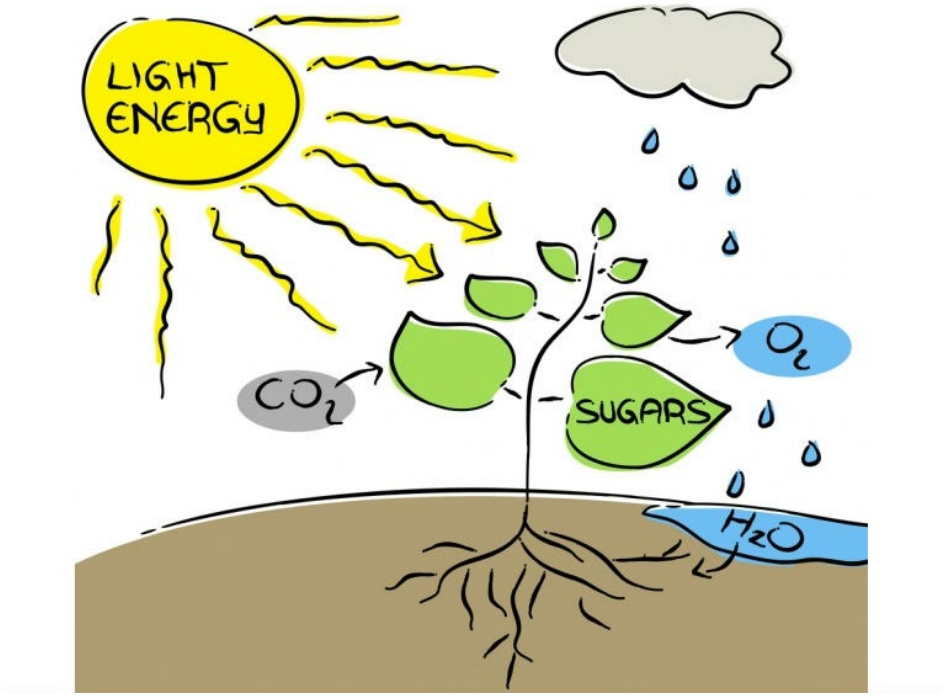
Types of Ecological Pyramids: https://youtu.be/iqK_PVK3svE

Photosynthesis

Photosynthesis is a very important interaction between **producers** and the **non-living** parts of the ecosystem.

Photosynthesis in Plants: https://youtu.be/eAtmg8IhcUs

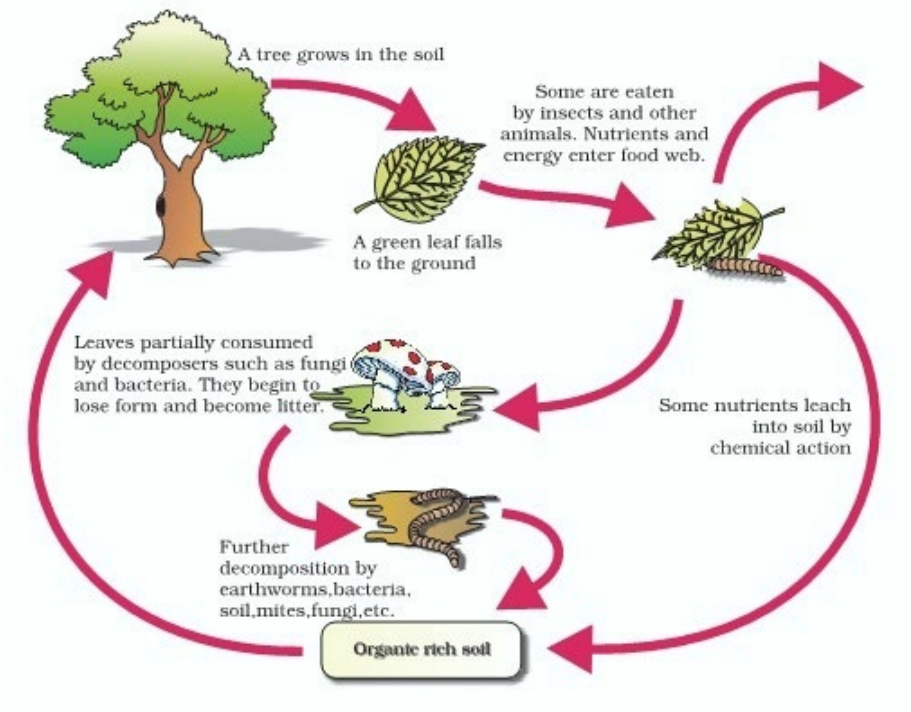
Photosynthesis is the process that plants use to convert water, sunlight, and carbon dioxide to create their own food (energy) and release oxygen into the air. Oxygen is very important to all organisms because they need it to breathe like you and I do.



Decomposition

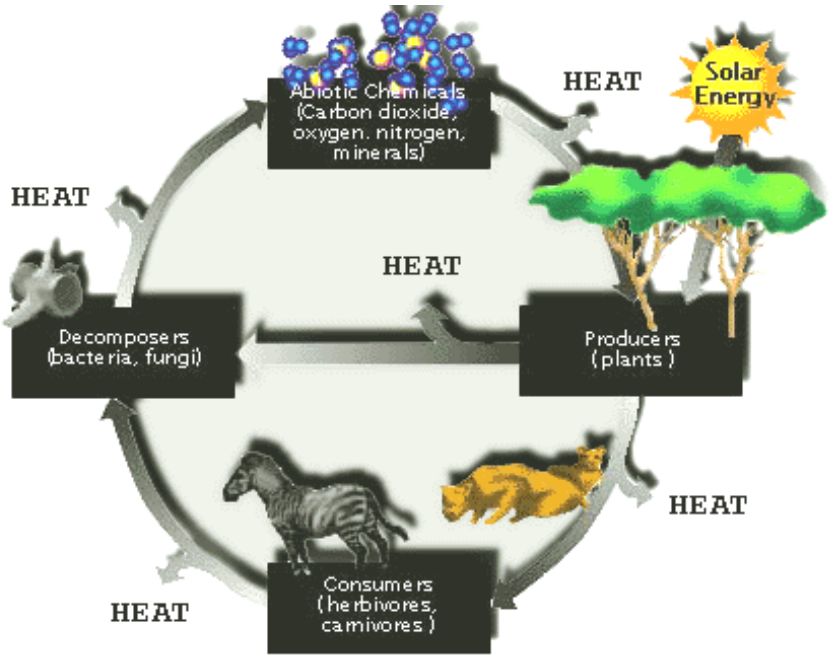
Decomposition is the breakdown or decay of living things. It is the act of recycling living things.

The picture below shows the cycle that is formed by decomposition. When living things are broken down it produces energy for producers (like trees) to take in and a living thing is recycled to create or help keep another living thing alive.



Energy Cycle

We have learned about living and non-living interactions individually. Looking at the picture below we can see how each interaction plays a role in the continuation of an ecosystem.



*note: heat is a way to show energy is produced

We Are the Survivors

All organisms need **space**, **food**, **water**, and **access to resources** to survive.

https://youtu.be/wtLQoTAVY_Y

Space

Space is the area or habitat that an organism lives in.

Habitat fragmentation is when a habitat is broken into small pieces. The smaller segments will have less **biodiversity**.

Biodiversity is the amount of different living things in an ecosystem.

If the areas created by the fragmentation are too small then the larger organisms can not survive because there is not enough room for them.

Complete the following:

One Hump or Two?

Organisms need to _____ to their environment as it changes or as they move to new environments in order to _____.

The Camel lives in the _____. It has adapted to its environment by storing fat in its _____ that it can use as _____ and _____ when needed.

We Are Survivors

Organisms need the following things to survive: _____, _____ , _____, and _____.

Space

Space is the area or where organisms live. Sometimes this area gets _____ and there is not enough room for all the organisms to survive.

Food

There needs to be food produced so that organisms will have _____ to survive. The production of energy all starts with the _____.

Survival

1. What are the four things all organisms need to survive?

2. Give two examples of how humans can affect an ecosystem (can be negative or positive).

3. In the following ecosystem what would happen if the pond water were poisoned?