

# The Basics of Ecology:

**The New School**

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**A fun and interactive way to introduce green roofs to 5th and 6th graders!**

\*Created based on NYS Science standards

**What is ecology? What are ecosystems? and why are they important to us?**

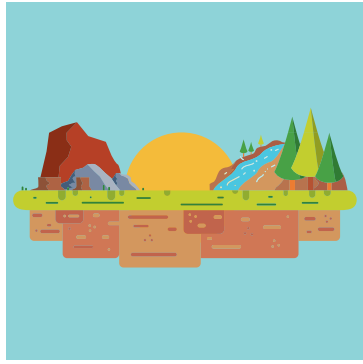
**Ecology** is the study of the relationship between organisms and to their physical surroundings. Ecology includes the relationships between organisms of the same species, different species that interact, and how living(biotic) and nonliving(abiotic) organisms fit within the larger context of the life cycle. Scientists who study ecology are called ecologists, they examine how living organisms depend on each other and study specific areas of biological activity called **ecosystems**. Ecosystems are a **community** of interacting living organisms in their physical **environment**.

It is important to study ecology because examining the interactions between organisms and the environment can provide a understanding of the world we live in and can help us understand how to protect all species on Earth.

**Can you think of an example of an ecosystem? Where?  
How does it relate to you?**

**Can you draw an example of an ecosystem? Share your drawing with your classmates!**

**Match the vocabulary word to the picture that best displays the definition for each word:**



A.



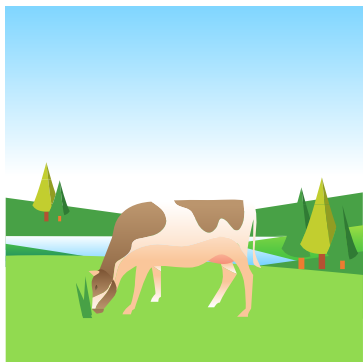
B.



C.



D.



E.

1. Ecology: the study of the relationship between organisms and to their physical surroundings.

2. Ecosystem: a community of interacting living organisms their physical environment.

3. Environment: everything that surrounds a living thing

4. Community: groups of animals, plants, and organisms that live together in one place

5. Habitat: the place where organisms live

6. Cycle: something that happens over and over in the same way.

7. Consumer: organisms that eat other organisms for food.

8. Producer: an organism that makes its own food (plants)

9. Decomposer: an organism that uses the leftovers of other organisms

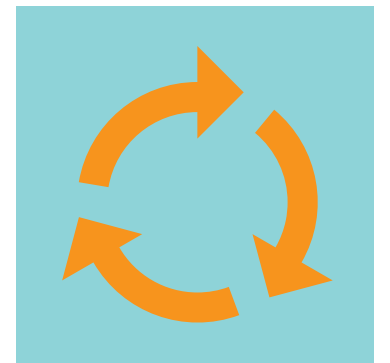
10. Natural Resource: materials that are naturally found on the Earth (wind energy)



F.



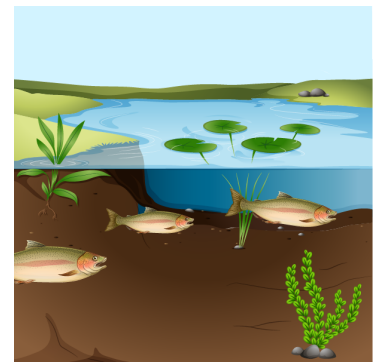
G.



H.



I.



J.

## How it relates to you!

## For more information visit these websites down below:

<http://www.ecology.com/ecology-kids/>

<https://www.grownyc.org/>

<https://www.nycgovparks.org/greening/sustainable-parks/green-roofs>

<https://www.greenroofsny.com/>

<https://citygrowers.org/>

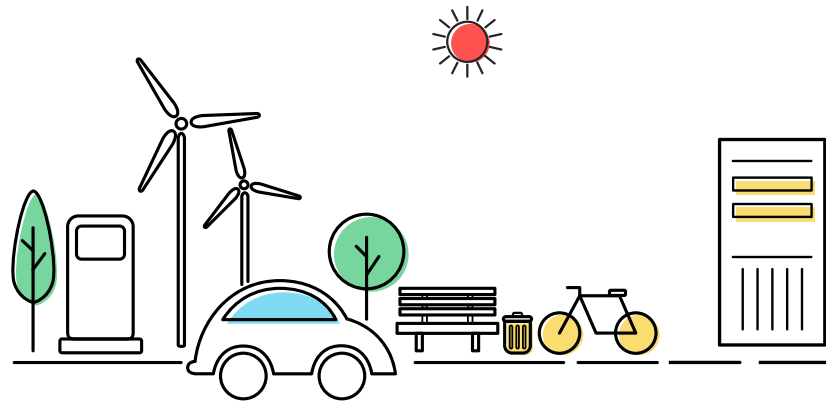
<https://www.brooklyngrangefarm.com/>

## Reflection Questions:

1. What is ecology? Is it important?
2. What are examples of ecosystem?
3. What happens in an ecological cycle?
4. What are natural resources?
5. What is the difference between a community and ecosystem?

## Multiple Choice Questions

In the picture below:



**1. What is an example of a natural resource in the picture above?**

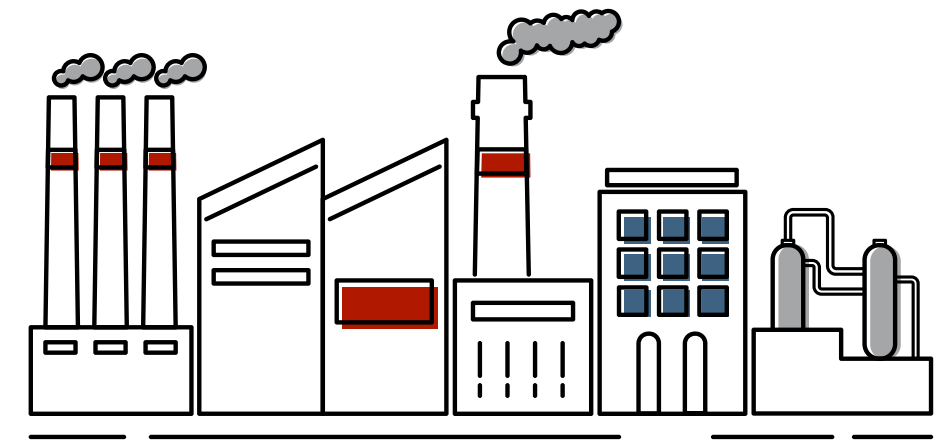
- a. the car
- b. wind power
- c. the park bench
- d. the trash can

**2. What is an example of a producer in the picture above?**

- a. the tree
- b. the bike
- c. the windows on the buildings

**3. The picture above is an example of**

- a. decomposer
- b. cycle
- c. environment



**1. What is an example of a non renewable resource in the picture above?**

- a. smoke from the buildings
- b. wind power
- c. the park bench
- d. trash

**2. What would happen to the air quality if the smoke continues to be used as fuel?**

- a. the air would be more polluted
- b. more trees would grow
- c. the sky would clear up