





Engage

Biotic and Abiotic Factors

Is it a Living Thing?

Place a Y for yes and an N for no in each of the boxes below.

You must have a yes in each box for the thing to be living.

Thing	Does it eat and drink?	Does it move on its own?	Does it breathe?	Does it grow?	Does it reproduce?	Living Yes/No
Cat 						
Fire 						
Plant 						
Feather 						

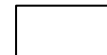
Questions:

1. Which two things in the chart are living things? _____

2. Why isn't fire a living thing? _____

3. The feather was once attached to a bird, which is a living thing. Some people like to make another category that they call once living. What do you think about adding a category?

Explore



Which One is Alive?

Materials: 2 bags of mystery powders, 2 packets of sugar, plastic spoon, 4 spoonfuls of slightly warm water

What To Do:

1. Observe the bags without opening them.
2. Describe both of them in the space below.

Mystery Power	Description
1	
2	

3. After your observations predict if either or both are alive in the space below.

Mystery Power	Living or Nonliving?
1	
2	

4. Add a packet of sugar to each bag.

5. Add 4 spoonfuls of warm water to each bag.

6. Close the bags tightly but make sure to leave some space.

7. Answer the questions below while you observe the bags for 5 minutes.

Questions:

1. What do you think the sugar might be for?

2. Do all living things need water? _____

3. What was in the space you left in each bag?

8. While you are waiting discuss with your group what observations would tell you if either of the powders is alive. List them below.

9. List observations of each bag in the space below.

Mystery Power	Observations
1	
2	

10. What do you observe that tells you one of the powders might be a living thing?

Factors In Ecosystems

Explain

BIOTIC

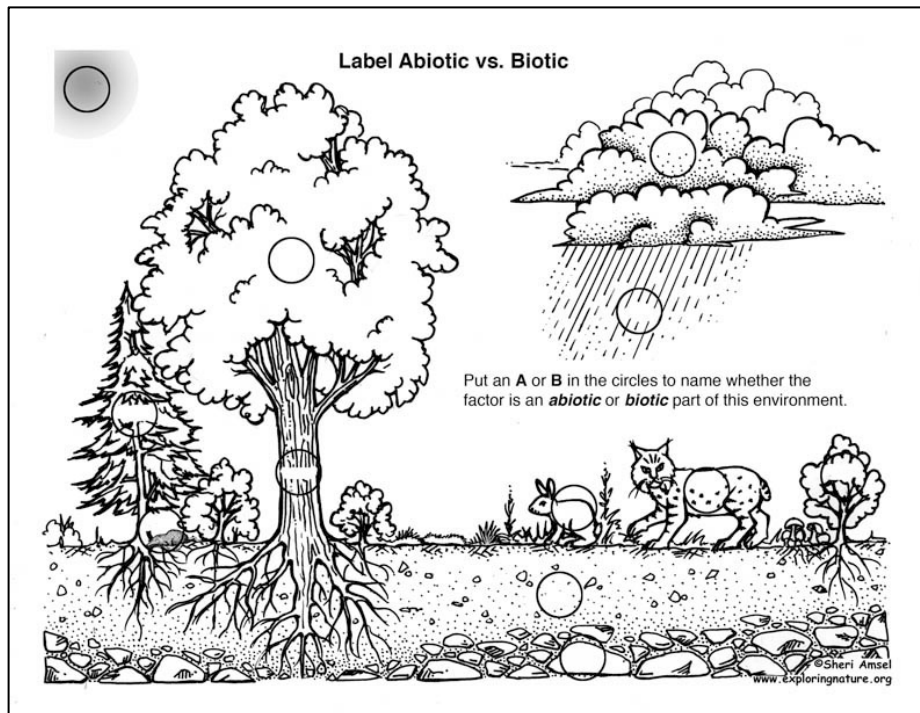
ABIOTIC

Elaborate

Watch the video *Abiotic and Biotic Factors* from https://www.youtube.com/watch?v=E1pp_7-yTN4

Write down three things you learn from the video below.

Label the items in the picture below as biotic or abiotic. Be sure to look closely for the moss under the tree. There are 11 circles.



Evaluate

Name _____ period _____

EXIT TICKET

Biotic and Abiotic Factors

1. What do all of the following have in common? Lion, pine tree, paramecium, mushroom, bacteria

- A. They are all abiotic factors in the environment
- B. They are all biotic factors in the environment
- C. They are all members of the same kingdom

2. From which abiotic factor do plants get their energy?

- A. water
- B. soil
- C. The Sun

3. Which of the following is an abiotic factor in the environment?

- A. water
- B. tiger
- C. bacteria

4. Which of the following is a biotic factor in the environment?

- A. water
- B. air
- C. duck

5. Which of the following is a requirement to be a living thing?

- A. It must grow.
- B. It must be able to talk.
- C. It must not breathe.