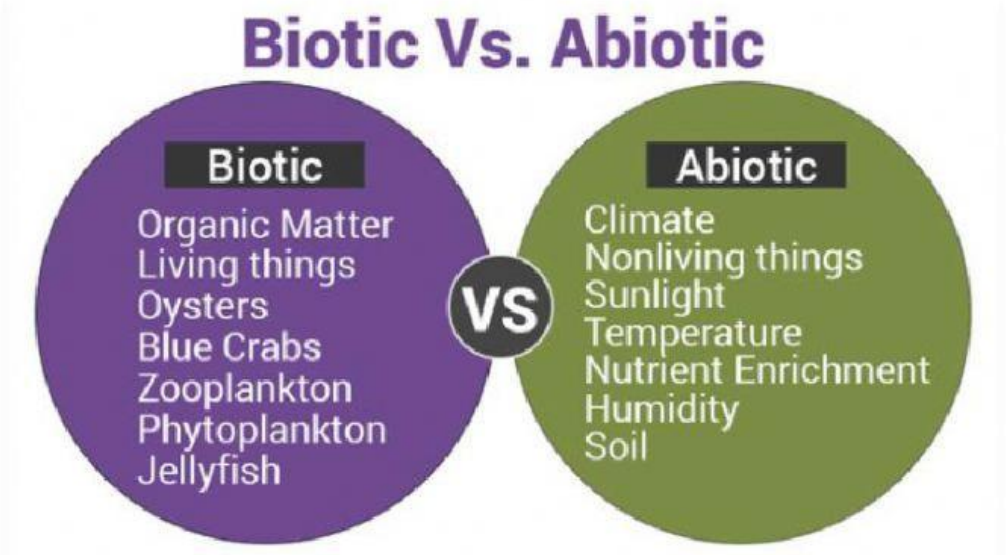
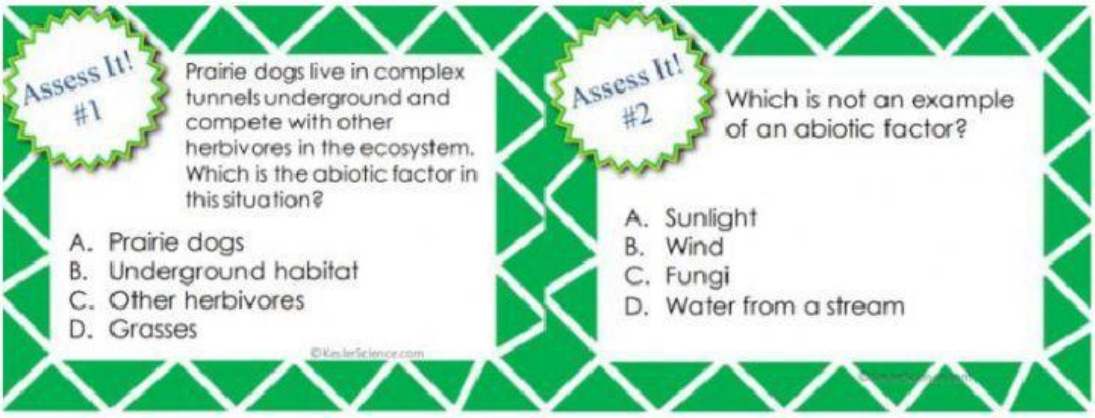


Biotic and abiotic are the two essential factors responsible for shaping the ecosystem. The biotic factors refer to all the living beings present in an ecosystem, and the abiotic factors refer to all the non-living components like physical conditions (temperature, pH, humidity, salinity, sunlight, etc.) and chemical agents (different gases and mineral nutrients present in the air, water, soil, etc.) in an ecosystem. Therefore, both the abiotic and biotic resources affect survival and reproduction process.



LIVEWORKSHEETS

Abiotic vs Biotic Factors

1. What is the definition of an abotic factor?

2. What is the definition of a biotic factor?

Label the following items as either abiotic (A) or biotic (B):

3. _____ whale	8. _____ glass	13. _____ snail	18. _____ wool
4. _____ clock	9. _____ aluminum	14. _____ steak	19. _____ gold
5. _____ water	10. _____ metal ruler	15. _____ bread	20. _____ plastic
6. _____ fish	11. _____ sand	16. _____ plant	21. _____ grapes
7. _____ paper	12. _____ clouds	17. _____ pipe	22. _____ air

All biotic and abiotic factors are interrelated. In nature, you will find that if one factor is changed or removed, it impacts the availability of other resources within the system. Knowing this, give an example of what might happen given the following situations:
(In the open space place either an **(A) for abiotic** or **(B) for biotic** to identify the **bolded** object.)

23. All of the **rocks** (___) are removed from a desert ecosystem, what would happen to the population of rock dwelling **lizards** (___) and in turn the animals which eat them?

24. A ten mile area of **trees** (___) is removed from the tropical rainforest. How will this affect the amount of **water** (___) and the amount of **oxygen** (___) in the area?

Abiotic and Biotic Factors

How do <u>biotic</u> factors limit other organisms in their environment?

<u>Parasitism</u> – when an organism lives off of a host organism sometimes killing the host.

- Worms in animal digestive tracts
- Mistletoe in trees
- Pine bark beetle invade and kill pine trees.

How do abiotic factors limit organisms in their environment?

Example: Drought, floods, pollution.

LIVEWORKSHEETS