

Name:

Date:

Reading 1.2

Relationships in Ecosystems

What are biotic elements?

A **biotic element** is a living thing that shapes an ecosystem. Examples of biotic elements that can be found in ecosystems include producers, consumers and decomposers.

A **producer** is a living thing that produces its own energy. The most common example of a producer is plants. Plants convert the energy from photosynthesis into food. Plants then use this energy to help them grow. Other animals use the energy produced by plants for food.

A **consumer** is a living thing that consumes energy produced by producer. The most common example of a consumer is animals. Animals depend upon producers for food. They might even consumer other consumers, if they are carnivores, rather than herbivores.

A **decomposer** is a living thing that breaks down chemicals from producers and consumers. Common examples of decomposers include fungi and bacteria. Decomposers break down usually dead producers and consumers into a simpler form that can be reused.

What are abiotic elements?

An **abiotic element** is a non-living thing. Abiotic components of an ecosystem can include water, sunlight and temperature. They can also include rocks and soil. Although these elements might have living things living in them, or under them, they, themselves, are not living things.

Abiotic elements can also shape an ecosystem. Think about an example of a relationship that might exist between a biotic and an abiotic element.

Relationships between abiotic and biotic elements.

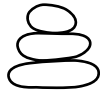
An example would be a termite mound. A **termite mound** is the home of mound-building

termites. However, the termite mound itself, is not a living thing. Most often, termite mounds out live the colonies that build it.

Termite mounds consist of a variety of underground tunnels. Termites will construct several shafts leading down to the main part of the mound. Termite mounds come in a variety of shapes and sizes. These mounds are held together with saliva, feces and lots of stored food.

These mounds might seem like they are living things because they have to be constantly maintained. However, you might think of a termite mound as the space you live in. Sometimes, the space you live in needs to be repaired. The same thing happens with termite mounds. Termites are always working repairing areas that require maintenance and adding new tunnels and corridors to the nest.

These mounds are usually located between trees in savannahs. They will attract other living things because of their size and the soil around them tends to be more fertile than other soil.



Abiotic vs. Biotic Elements



	BIOTIC ELEMENT	ABIOTIC ELEMENT
DEFINITION		
EXAMPLES		

Are abiotic elements just as important as a biotic element in an ecosystem? Discuss with your group and write your conclusions below!

Relationships between Biotic and Abiotic Elements