

## Chapter 4 Section 1 Notes

### Ecosystems: Everything is Connected

**Defining an Ecosystem** – all the organisms living in an area and their physical environment

An ecosystem can be an empty lot, a pine forest, and a coral reef

**Ecosystems are connected**

### The components of an Ecosystem

The energy for most ecosystems comes from the sun.

#### **Biotic and Abiotic Factors**

Biotic Factors are the living parts of the ecosystem (includes both living and dead organisms)

Abiotic Factors are the nonliving parts of the ecosystem like air, **water** and rocks

**Organisms** – are individual living things

Species – a group of organisms that are closely related and can mate to produce fertile offspring (ex. a brown recluse spider)

**Populations** – all the members of the same species that live in the same place at the same time  
(ex. All the brown recluse spiders in a certain area)

**Communities** – a group of various species that live in the same place and interact with each other.  
(ex. Community in a forest would include ants, trees, deer, and squirrels)

### **Habitat**

A habitat is the place where an organism lives. It contains both biotic and abiotic factors and has specific characteristics that the organism needs in order to live there.

Most organisms CAN NOT survive if they are taken away from their habitat!

Ex) cacti need dry sandy soil and a lot of sunlight; amphibians need damp conditions to keep their skin moist.