

Ecosystem Guide

Biotic	Abiotic
Plants	Soil
Animals	Climate

Ecosystem Guide

An ecosystem, short for 'ecological system' includes all the living organisms existing together in a particular area. These plants and animals within an area interact with each other and with the non-living elements of the area, such as climate, water, soil and so on. An ecosystem can be very small, such as the area under a large rock, or it can be vast, such as an ocean.

Biotic factors include all living things within an ecosystem. Chances are there are many living plants and animals within the area you are exploring. Take your time when making observations about plant and animal life and collect as much evidence as you can.

1. Plants: When exploring the plant life in your ecosystem you'll want to zoom out and zoom in. Zoom out and count how many different plants you can find – draw the one you see the most. Now choose one spot on the ground and look really close. What plants make up the **understory**? Are there trees in your ecosystem? Flowers?
2. Animals: When exploring an ecosystem for animals patience is key! You will not find any wildlife if you're running around or being loud. Find a sit spot and listen for 5 minutes. What kinds of sounds are coming from the animals in your area? Do you know what's making those sounds? (If not you can write a description as evidence) You may not see any animals at all and that's ok! You can find evidence of the animals that live in your ecosystem (feathers, scat, footprints, habitats etc). Think about all the types of animals you know and where they might live. You might want to look underneath a rock or a log – be careful!

Abiotic factors include all non-living things within an ecosystem. In order to make a guide to your ecosystem you'll want to focus on abiotic factors that will set your ecosystem apart.

1. Soil: Time to be a scientist! (and to get a little dirty) First you'll want a soil sample. You'll need to dig down into the soil a little (about 3 inches or the length of your pinky). Now grab a bit of soil and rub it in between your fingers. Is it: Gritty, Sticky, or Soft.
 - a. Gritty = Sandy soil
 - b. Sticky = Clay soil
 - c. Soft = Silty soil

The type of soil determines what kind of plants can live in the ecosystem.

2. Climate: This will be a difficult abiotic factor for you to test. Climate refers to the usual temperatures and rain fall in your ecosystem. Make some observations about how hot or cold it is, how wet or dry and how sunny or shady it is. Time to be a scientist again and do some research! Search for the "climate" of the area you are exploring. (hint: Make sure you find the average temperature and average rain fall!)