

CHAPTER 18

In the last chapter you learned that a food chain is a relationship between species that use each other for food. Each organism is linked together into a "chain" because nutrients are passed from one organism to another...

Remember the sentence...



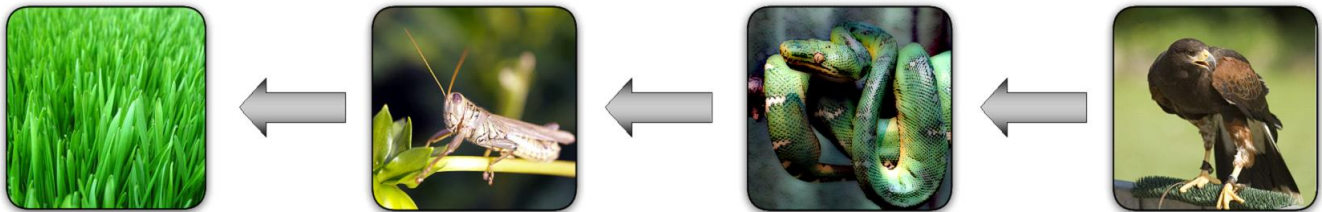
Everything in the world is connected together because:

Every living organism is food for another organism!

You also discovered that food chains have a very large problem...

Food chains don't show everything an organism can eat!

Let's look back at the food chain from last chapter:



As you learned in the last chapter, the animals in this food chain eat many, many, many more things in their life than what is in this picture!



So...this food chain does not show you what a snake, a bird, or a grasshopper can eat!

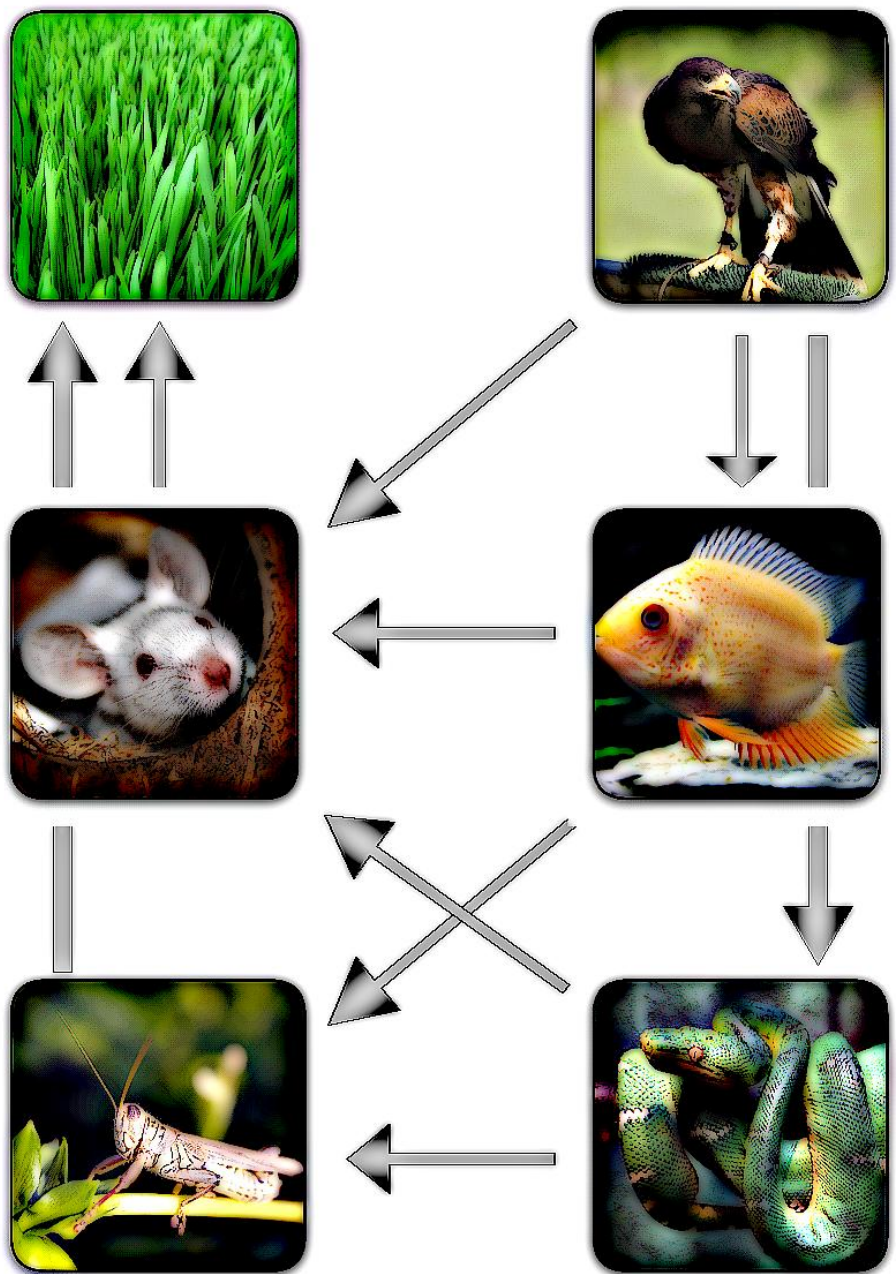
**Food chains
can never
show you
everything an organism can eat!**

Therefore, I give you:

THE FOOD WEB

Think of a food web as a lot of food chains grouped together!

Let's take a look at this food web from a grassland biome and see what we can find...



Within a habitat, each species within a food web may be inside several different food chains! This supports the fact that...



Now here's a chance to review a lot of what you have learned in the past several weeks...

In all food webs, plants provide most of the food to the organisms! But a lot of different kinds of organisms can eat plants. Fungi, archaeobacteria, eubacteria, protists and animals can **all** eat plants.

Do any of these organisms sound familiar to you? They should, since they are all different kingdoms of life! That means that in every food web, you could find different kinds of animals from all of the kingdoms!

Now for some more review...

Food webs exist wherever you can find living organisms.
So if you look in...

Tundras
Coniferous Forests
Deciduous Forests
Tropical Rain Forests

Grasslands
Aquatic areas
or Deserts

...you would find very large food webs that connect all of the different species in that area! That's right - all of the biomes have large food webs inside them!

Don't forget that every living organism is food for another organism!

Scientists sometimes call carnivores (animals that eat other animals for food) **predators** ("pread-ah-torz"). Predators get

their nutrients by eating other animals. The animal being eaten by a predator is known as their **prey**.

WHAT DID DTHE 20 POUND
RAT SAY TO THE CAT?



HERE KITTY KITTY..

Most predators are larger than their prey. They have body parts that may help them see far distances, run fast or smell their prey from far away!



In addition, most prey have body parts that help them defend themselves from predators. Some have very good senses which help them notice a predator before it

attacks. Others are very fast, which is helpful when you are trying to outrun a predator. Some animals have special traits that help them survive. Skunks, for example, have a powerful odor they can spray on predators to keep them away!

You might be thinking that without predators, the prey could live a long and happy life, right?

Nope!

Without predators, the number of prey would increase very quickly... and what are all of these organisms going to eat? That's right - everything! There would be no food left so they would all starve!

But what if there are too many predators? Well, in this case the large number of predators would eat all of the prey! They may be happy for a short while, that is... until they run out of food! Oops!

You cannot have too many predators or prey in one habitat. This is because too many of one kind of species in a habitat will use up the resources in that habitat! So, there must be a balance in the numbers of predators and prey. This balance is known as the **carrying capacity** ("kuh-pass-ih-tee").

WHAT DO YOU MEAN,



"WE'RE OUT OF PREY?"

True or false:

A food chain is a collection of many food webs joined together.

If this sentence is false, fix it to make it true!

Match the words in the first column to the best available answer in the second column.

- | | |
|-------------------------|---|
| _____ Food web | 1) animals that eat other animals for food; also known as a carnivore |
| _____ Predators | 2) animals that are eaten by predators |
| _____ Prey | 3) a balance of predators and prey in a habitat |
| _____ Carrying capacity | 4) a group of food chains linked together |

Draw a picture of a food web. Label your drawing with the following types of organisms:

Producer

Herbivore

and

Carnivore