Create a Food Web

Alabama Wildlife Federation Habitat Lab Field Journal Activity

To use this interactive PowerPoint with your students:

1. Click on "Enable Editing."
2. Click the "Slide Show" tab at the top of the screen.
3. Then choose "From Beginning" from the menu.

To review…What is a Food Chain?

A **food chain** is the path of energy (in the form of food) from one organism to the next, linking the organisms in a chain with each dependent on the next as a source of food and energy.

Plant gets energy from sun!

Grasshopper eats plant…

Toad eats grasshopper…

Snake eats toad…

Hawk eats snake…

Example Food Chain: Sun → Plant → Grasshopper → Toad → Snake → Hawk

Are you part of a food chain?

What would an example food chain look like for humans?

Yes, we are part of a food chain!

Grass gets energy from the sun…

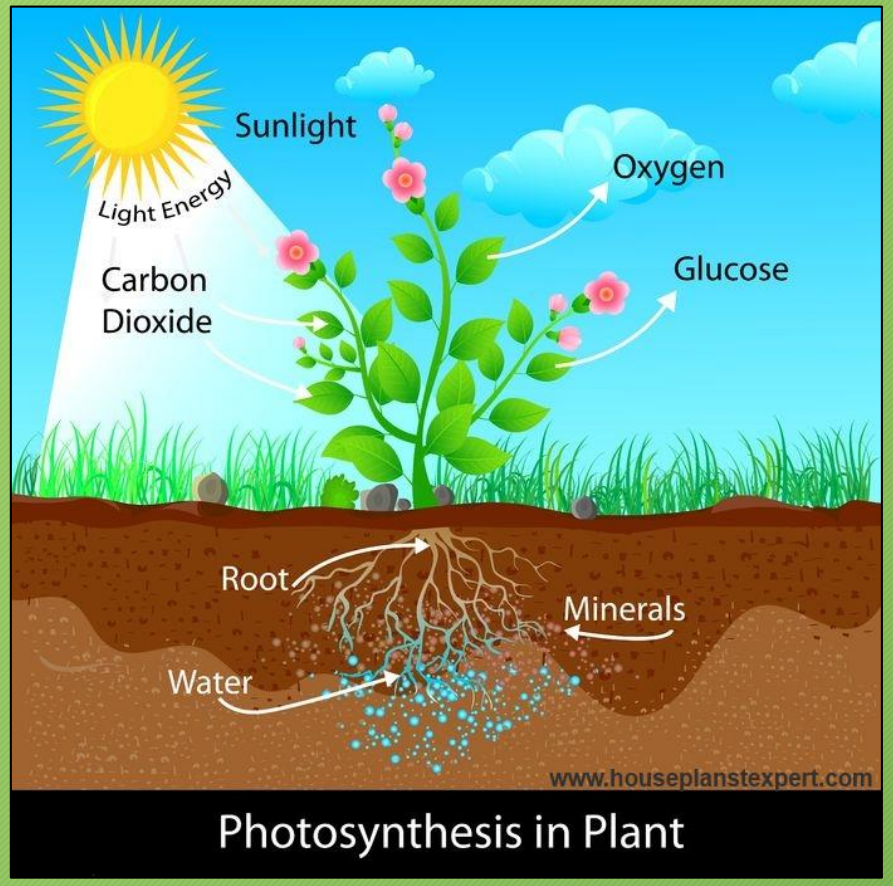
Cows eat grass…

We eat hamburgers (meat from cows)…

This is an example Food Chain that shows how energy flows from the sun to humans:

Sun → Grass → Cow → Human

How does grass (and other plants) get their energy from the sun?



Photosynthesis in Plant

The sun emits energy in the form of light.

Plants (like grass) absorb the energy from the sun in their leaves, and then use the energy to convert water (from the soil) and carbon dioxide (from the air) into sugars (or food).

Plants are the original "producers" of energy in food chains using this chemical process called **photosynthesis**.

In our previous example, is this food chain complete?

Sun → Plant → Grasshopper → Toad → Snake → Hawk

No, the final link in **ALL** food chains is the "**decomposers**".

When **organisms** (plants & animals) die then <u>scavengers</u> like vultures and <u>decomposers</u> like pill bugs eat the **detritus** including **carrion** (decaying animal carcasses) and plant matter.

The decomposers help break down the dead matter into smaller pieces and process the nutrients so that the nutrients are returned to the ecosystem where they can be used by other plants to grow and survive.

Complete Food Chain: Sun → Plant → Grasshopper → Toad → Snake → Hawk → Decomposers

Which parts of the food chain will be eaten by the scavengers and decomposers?

Example Food Chain:

Sun → Plants → Grasshopper → Toad → Snake → Hawk

ALL dead plants and animals
will be eaten and broken down into nutrients
by **scavengers** and **decomposers**.


vultures

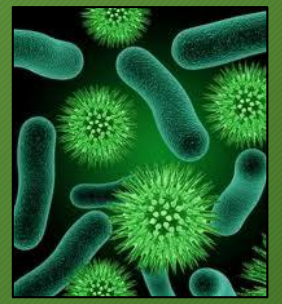

earthworms


fly larvae


slugs


pill bugs


fungi

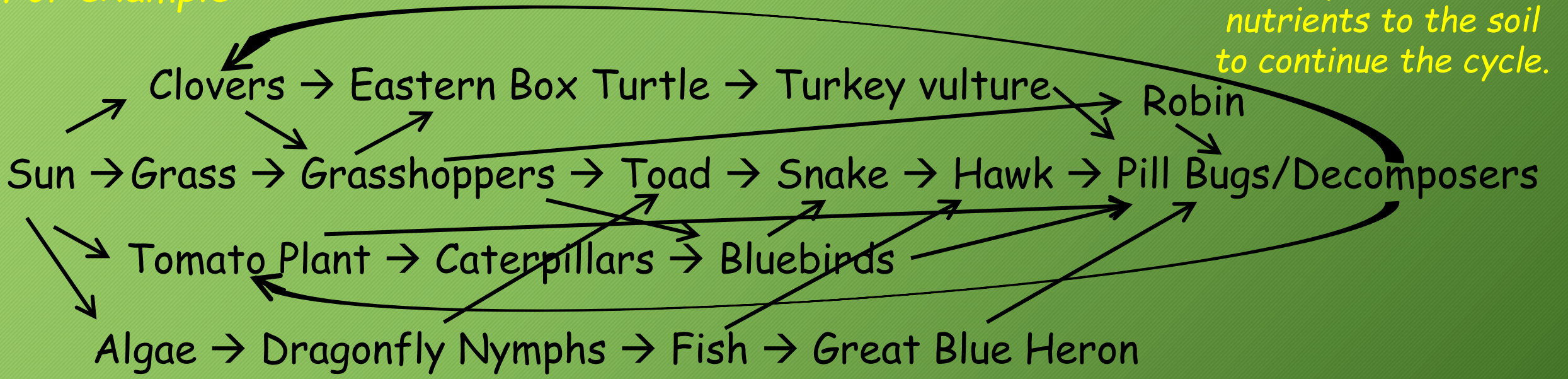

bacteria

What is a Food Web?

A food web is made of many interdependent food chains with overlapping members and is a representation of the flow of matter and energy through an entire ecosystem.

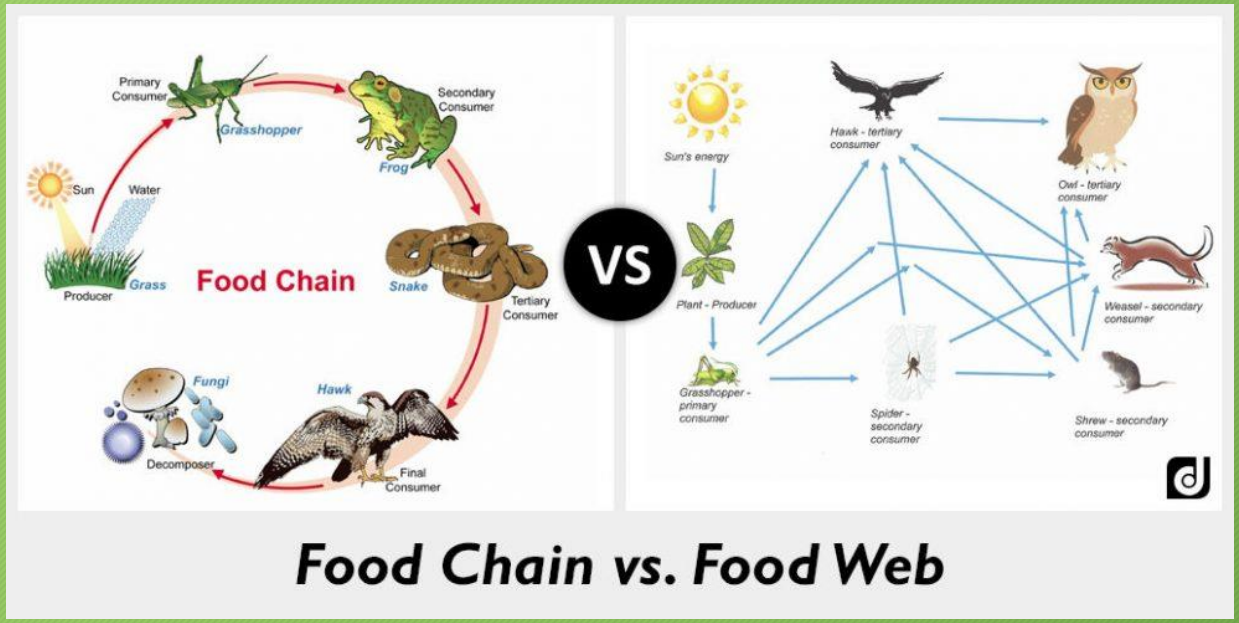
For example:

Decomposers return nutrients to the soil to continue the cycle.



How is a food web different from a food chain?

Food chains include one producer (plant), primary consumer (herbivore or omnivore), secondary consumer (omnivore or carnivore), apex predator, and decomposer.



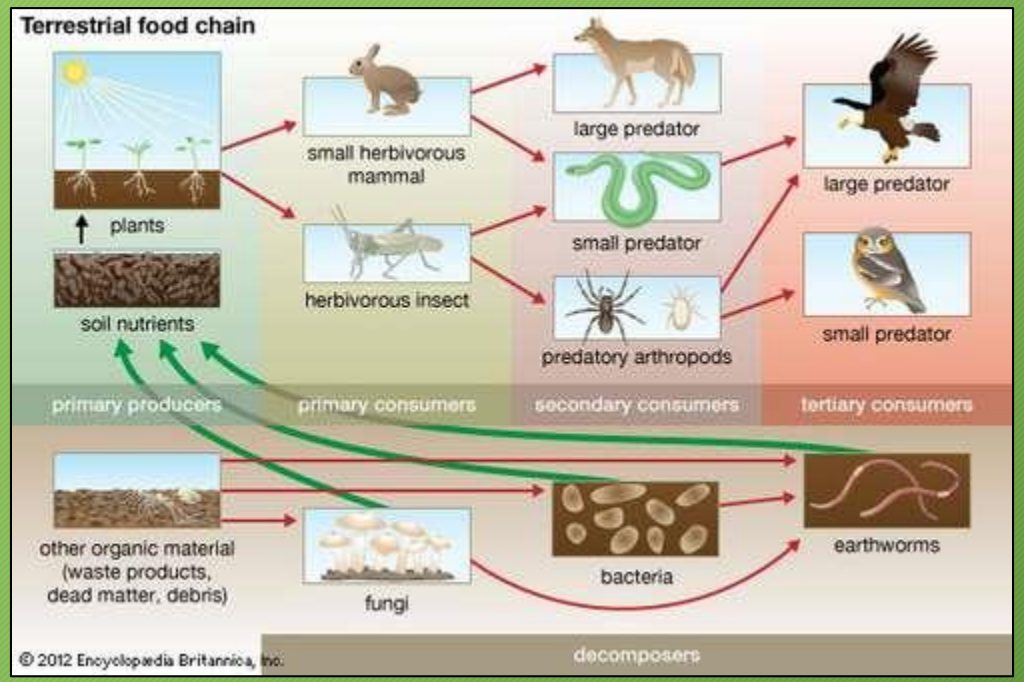
Food webs contain multiple producers, consumers, and decomposers that can be found in an ecosystem to demonstrate the interdependence of these organisms.

What organisms are dependent on one another for food and energy in our outdoor classroom?

Producers like…
- ✓ grass
- ✓ bushes
- ✓ wildflowers.

Consumers like…
- ✓ grasshoppers
- ✓ rabbits
- ✓ hawks.

Decomposers like…
- ✓ bacteria
- ✓ earthworms
- ✓ fungi (mushrooms).



What would a FOOD WEB for the organisms in our outdoor classroom look like?

Use your Outdoor Classroom Activity sheets to create an example food web.