



Rainforest Food Web

Audience

Activity designed for ages 10 years old and up.

Goal

Students will be able to understand the importance of food webs.

Objective

- To create an African rainforest food web.
- To be able to define producer and consumer in relationship to a food web.

Conservation Message

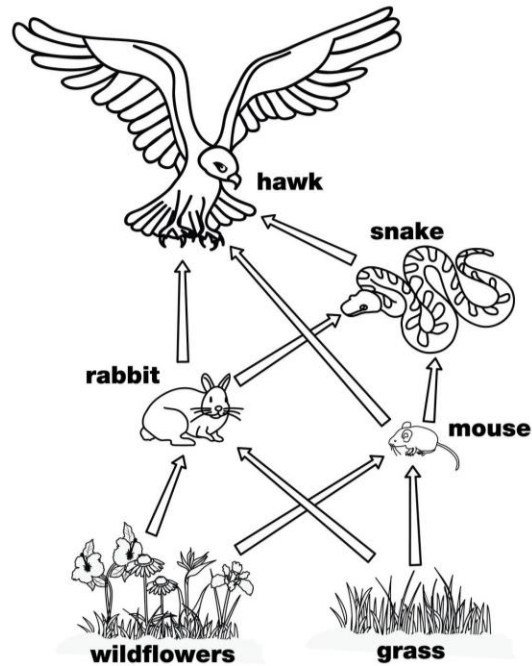
Tropical rainforests are home to 80% of the world's terrestrial biodiversity. Rainforest ecosystems are endangered due to unsustainable farming and logging. We use many products that come from the African rainforest such as wood, oil, diamonds, gold and coltan (used to make cell phones). By educating yourself, friends and family on the issues that arise with these products you can help make sustainable choices when purchasing these products.

Background Information

A tropical rainforest is described by an area that receives more than 80 inches of rain each year. These unique ecosystems are typically found along the equator. The African rainforest can be found in the Congo River Basin, in central Africa. It spans for approximately 1.5 million square miles, the world's second largest tropical rainforest. It is home to variety of endemic animals.

A food web is the natural interconnection of food chains and a physical representation of what-eats-what in an ecological community. In a food chain, each organism occupies a different trophic level, defined by how many energy transfers separate it from the basic input of the chain. Energy is transferred between trophic levels when one organism eats another and gets the energy-rich molecules from its prey's body. When energy enters a trophic level, some of it is stored as biomass, as part of organisms' bodies. Only about 10% of the energy that's stored as biomass in one trophic level ends in the next trophic level.

Food webs consist of producers and consumers. Producers or autotrophs make their own energy, these organisms are plants. Consumers or heterotrophs get their energy by eating the producers or other consumers. Consumers can be herbivores (only eats plants and fruits), omnivores (eats other animals/insects and plants/fruits) and carnivores (only eats meat/other animals). An example of a food web:



Some of the unique animals that make up an African Rainforest food web include the Okapi, Crowned eagle, and Grey parrot. The Okapi is an herbivore that eats bamboo and the only living relative of the giraffe. The Crowned eagle is a fierce predator that eats mostly small mammals but can take prey that weighs 40 pounds! Grey parrots are omnivores eating mostly nuts, seeds and fruit, sometimes, they will also eat insects. The Leopard is a strong carnivore that eats a variety of mammals and reptiles. The Pygmy hippo will occasionally fall prey to the leopard. The Tree hyrax eats a variety of nuts and seeds and is a prey animal to the rock python. A Chimpanzee is an omnivore that will eat a variety of insects, fruit and nuts but when they are young, they must be cautious of the Crowned eagle.

Materials Needed

- African Rainforest Animal Cards (provided)
- Scissors
- Blank piece of paper
- Markers or crayons
- Glue (optional)

Length of Activity

30 minutes

Procedure

- Print, color and cut out cards.
- Organize cards into a producer pile and a consumer pile. The producers have a green box around them, the herbivores have a blue box, the omnivores have an orange box, and the carnivores have a red box.
- Place all the producers at the bottom of your sheet of paper.
- In the next row, place the consumers that would eat the producers.
- On the top row, place the consumers that eat other consumers.
- As an option, glue all your pictures in place.
- Draw arrows pointing the direction that the food energy goes. For example, grass → mouse → hawk.
- An example of the food web we made is included below.

African Rainforest Animal Cards



Ants



Flower



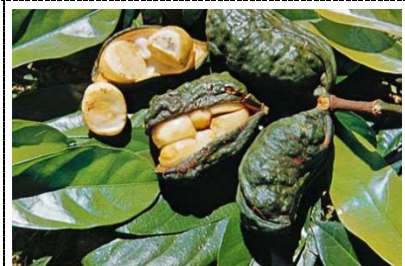
Crowned Eagle



Fruit



Grey Parrot



Nuts and Seeds



Leopard



Caterpillar



Hercules Beetle



Chimpanzee



Tree Hyrax



Grass



Bamboo



Frog



Okapi



Pygmy Hippo



Gorilla



Python

Diet Key	
Producers	<input style="border: 2px solid green;" type="text"/>
Herbivores	<input style="border: 2px solid blue;" type="text"/>
Omnivores	<input style="border: 2px solid yellow;" type="text"/>
Carnivores	<input style="border: 2px solid red;" type="text"/>

Example

