

Energy and Biomass

All living things are **interdependent** and **depend on each other** for things like food, pollination, shelter, etc. in order to **survive** and **reproduce**. For example, bees depend on flowers for nectar (food) and flowers depend on bees for pollination so they can make seeds.

Food Chains and Food Webs

A food chain shows **what eat what**. In a habitat food chains can be **joined together** to form a **food web**, which shows the feeding relationships **between the organisms**.

Both food chains and food webs have **trophic levels**, which show organisms feeding at the **same level**. For example:

Trophic level 1 – organisms at this level are all **plants** and are called **producers**.

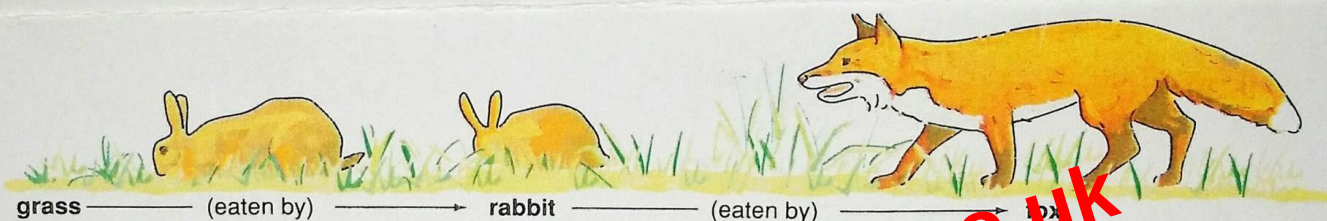
Trophic level 2 – are **primary consumers** called **herbivores** that **feed** on the producers.

Trophic level 3 – are **secondary consumers** called **carnivores** that **feed** on the primary consumers.

Trophic level 4 – are **tertiary consumers**, also called **carnivores** that **feed** on the secondary consumers. Animals at this level are **top predators**.

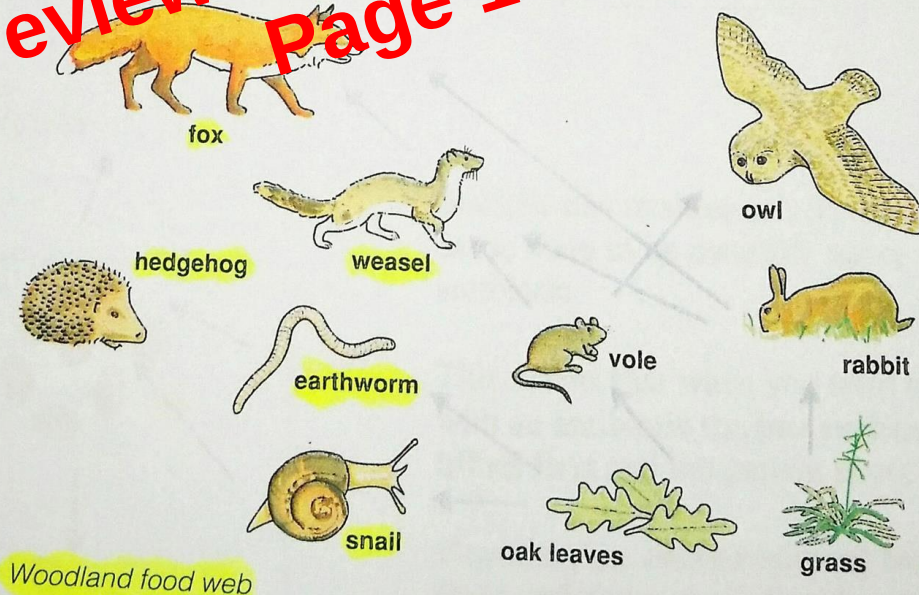
If the numbers of **one** organism changes in a trophic level other organisms are affected, so **relationships** among the organisms are **always changing**. This is called a **dynamic** relationship. The word **dynamic** means **changing**.

Example of a Food Chain



The arrows show the direction in which the food energy is transferred from one organism to the next.

Example of a Food Web



The resistant bacteria survive and reproduce, producing a new colony of resistant bacteria.

Key

spread to other people, they could cause an infection that **cannot** be treated with that **antibiotic**. This also applies to the original patient.