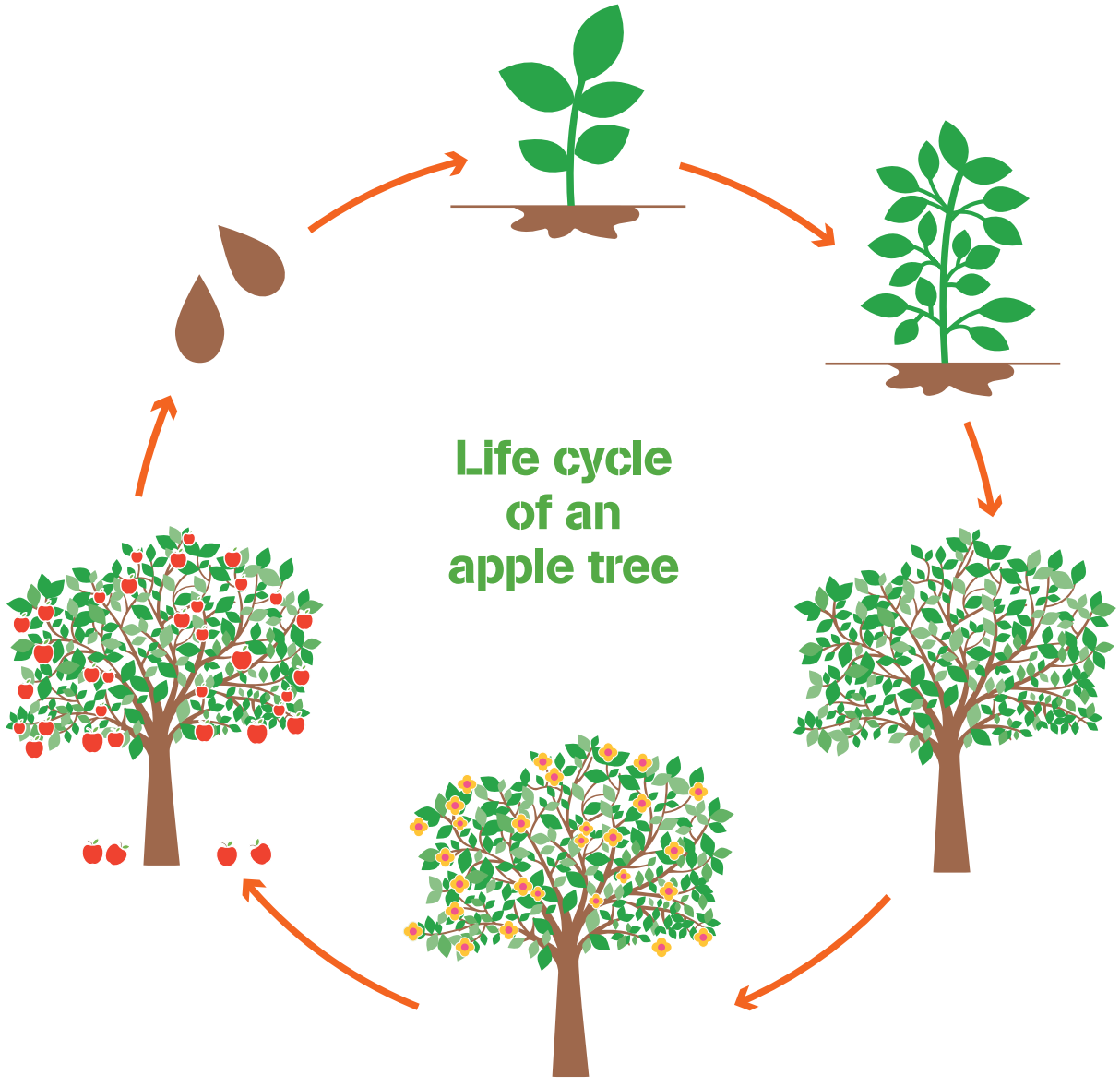
Orchard life cycles and food chains

Life cycles

A life cycle is the stages a living thing goes through during its life. All animals and plants go through different stages. In some cases, this process is gradual and in other cases these life stages can occur rapidly. Life cycles are a continuous process, with seeds or offspring being produced to begin the cycle again.



An orchard supports fruit tree life cycles, but they are also an important habitat which supports other species including a variety of insects and birds. The diversity of flora (plant) and fauna (animal) supported by a habitat is called biodiversity. Fruit trees, with their flowers, fruits and branches provide a range of food and shelter, supporting a diverse range of flora and fauna and are therefore fantastic for biodiversity.

For example:

- **Blue tit**

For example:

- **Ermine moth**

Food chains

A food chain is a linear sequence of what eats what, a representation of how species get their energy and nutrients. A biodiverse orchard supports a wide range of different food chains.

A food chain always starts with a producer, this is an organism that makes its own food, usually a green plant. Plants make their own energy by photosynthesis. They get their energy from the sun and therefore do not need to consume other organisms to get energy. In the food chain, a consumer is a living thing that eats other plants and animals for energy. Animals that eat other animals are called predators. The animals that predators eat are called prey.

- **Producer** – the start of the food chain, can make its own food, usually a plant
- **Consumer** – eats producers (herbivore), other consumers (carnivore), or both (omnivore)
- **Predator** – animal that preys upon other animals
- **Prey** – animal that is eaten by predators

Common food chains that can be observed in an orchard include:

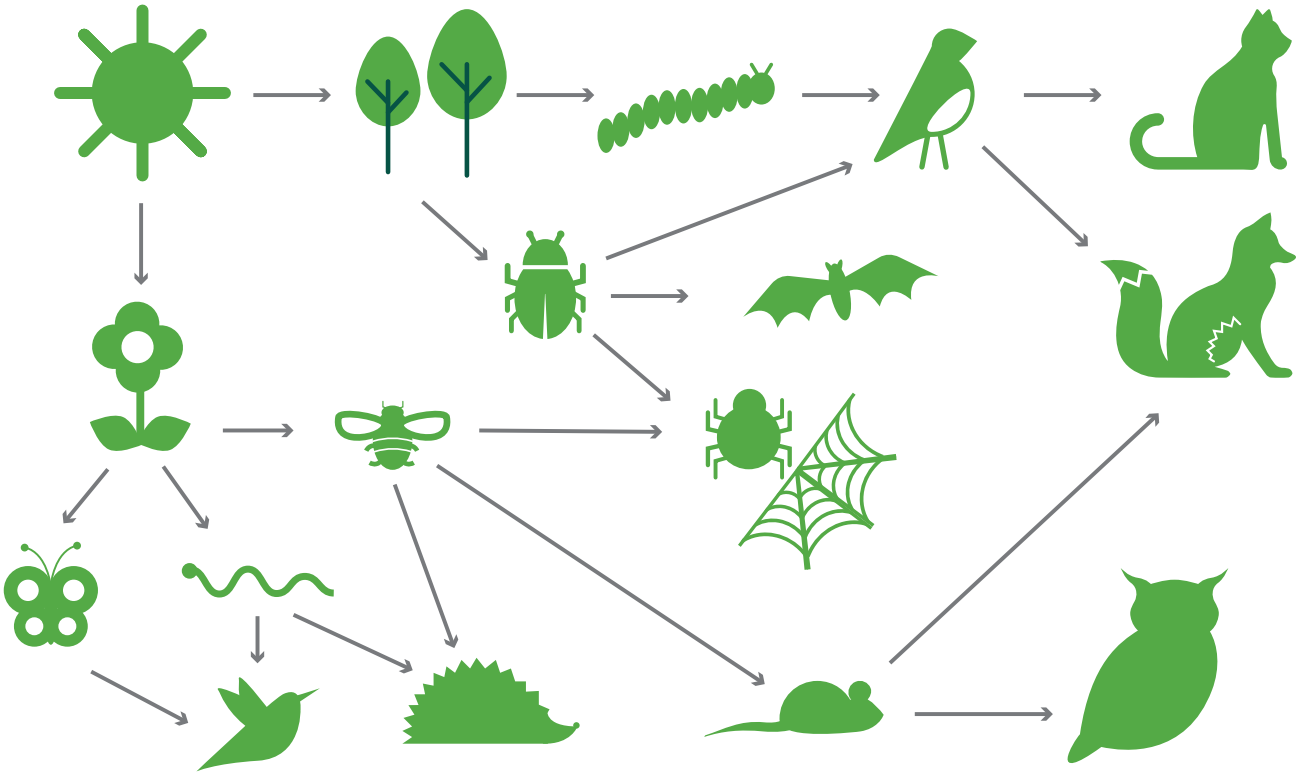
- **Leaves – Caterpillar – Blue tit – Cat**
- **Flowers (pollen and nectar) – Bee – Bird**
- **Fruit – Slug – Bird – Fox**
- **Rotting leaves- Worm – Hedgehog – Owl**
- **Fruit – Mouse – Owl**
- **Fruit – Moth – Bat**

Food chains are important to understand the basics of how energy travels between species, however they provide a simplistic view and in reality, many food chains overlap.

Food webs

Many animals aren't confined to one habitat, therefore food webs include the range of habitats supporting the flora and fauna of an area. This biological community is called an ecosystem. Food webs consist of many interconnected food chains and provide a more complex and realistic representation of consumption and energy transfer within an ecosystem.

Example of an orchard food web:



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