

## Parasitism and Mutualism

2

The **survival** of some species completely **depends on another species**. This dependence is illustrated by either a **parasitic** relationship or a **mutualistic** relationship.

### Parasitic Relationships

In this type of relationship one species **benefits** and the other species **often suffers**. The species that benefits is called the **parasite** and the species that suffers is called the **host**.

The parasite lives **in or on** the host and takes what it **needs to survive** without giving anything back. This often **harms** the host.

### Examples of Parasites



**Fleas** – live in the fur and bedding of animals, including **humans**.

They **feed by sucking the blood** of their host and can reproduce quickly.

The host **gains nothing** from having fleas.

**Head Lice** – these are insects that live on **human scalps**. They suck the blood for **food** and make the person **itch**.

**Tapeworms** – attach themselves to the wall of the **intestine** of the host.

They absorb lots of **nutrients** from the **host's gut** causing them to suffer **malnutrition** and **lose weight**. Tapeworms can grow so large they **block** the host's intestines, which prevents the host from digesting its food causing further malnutrition and weight loss.



**Mistletoe** – is a **parasitic plant** that grows on **trees and shrubs**. Its leaves can photosynthesise, but its roots grow into the host tree. The roots absorb **water** and **nutrients** from the host, which can **reduce** the **host's growth**.

Q1.

In the human-head lice feeding relationship name with a reason :

- a) the parasite is the head lice because they suck human blood for food.  
digested food as the head lice's food.
- b) the host the human is the host because it gains nothing from head lice but it suffers because the human has a itchy head.