

The background is a vibrant blue underwater scene. Sunlight filters down from the top center, creating a bright, glowing effect. In the foreground, there are silhouettes of seaweed or coral. The word "SEALIFE" is written in large, white, bold, sans-serif capital letters. A small orange starfish is positioned between the "A" and "L". A small "TM" trademark symbol is located at the bottom right of the word "LIFE".

SEALIFETM

Food chains

Life processes

All animals have to carry out seven life processes.
These are:

1. Movement – being able to move its body
2. Respiration – taking in one gas and getting rid of another
3. Reproduction – being able to produce young
4. Nutrition – being able to get energy out of food



Life processes

5. Growth – using energy to get bigger and repair damaged cells
6. Sensitivity – using senses, like smell and taste, to find out about the world
7. Excretion – getting rid of waste products from food



Producers

Every living thing needs energy to survive. This energy is used for everything - growing, moving, even breathing.

Plants get their energy from the sun. The green color in their leaves helps them to capture this energy. Plants are called **producers** because they produce energy from the sun.



Seaweed



Consumers

All animals are **consumers** because they have to consume food provided by other animals or produced by plants.

Consumers can be broken down into three groups:

1. Herbivores
2. Carnivores
3. Omnivores



Herbivores

Animals get their energy by eating food.

Some animals eat plants.
These are called **herbivores**.

They can also be known as **primary consumers**.

Carp is a herbivorous fish.



Carnivores

Some animals eat other animals.

These are called **carnivores**.

They can also be known as **secondary consumers** because they are consuming consumers.

Penguins are carnivores.



Omnivores

Some animals eat both plants and animals.

They are called **omnivores**.

Humans are omnivores.

Turtles are omnivores.



Predators

Predators eat other animals.

Sharks eat fish so they are predators.

Turtles eat fish and jellyfish so they are also predators.



Prey

Any animal which is hunted and killed by another animal for food is called **prey**.

Fish are prey because they are eaten by sharks.



Predators and prey

Some animals are both **predators** and **prey**.

The penguin is a predator because it catches fish.

But it is also prey because it is eaten by sharks.



Food chains

A food chain can be used to show what eats what.



The otter eats the fish.



Food chains

Food chains always start with a plant because they are producers.

A food chain can only go in one direction.

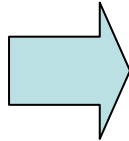
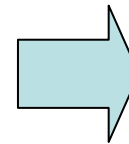


Photo credit Sue Pizarro

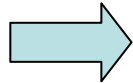
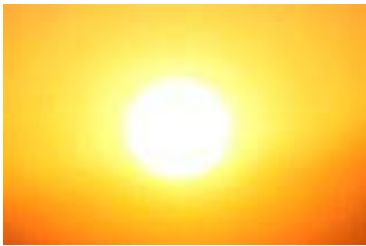


The Hermit Crab eats the seaweed, the octopus eats the Hermit Crab.

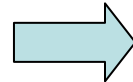


Food chain 1

The sun



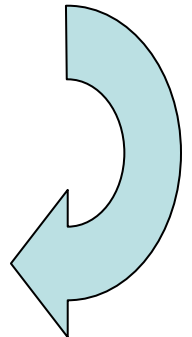
Phytoplankton



Zooplankton



Blue Whale



Food chain 2

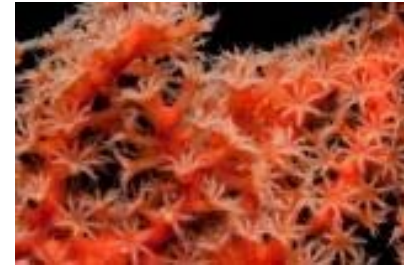
The sun



Phytoplankton



Zooplankton



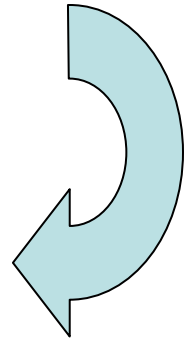
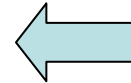
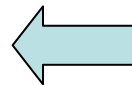
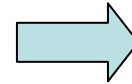
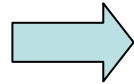
Tiger Shark



Loggerhead Turtle

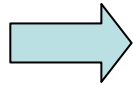
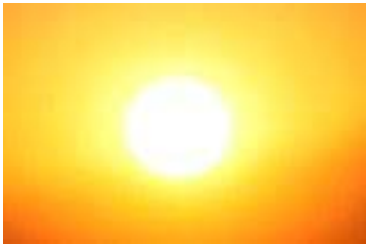


Jellyfish

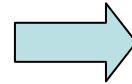


Food chain 3

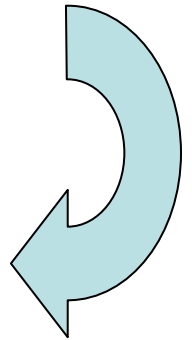
The sun



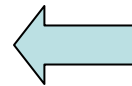
Phytoplankton



Zooplankton



Herring



Seals



Food chain 4

The sun



Phytoplankton



Zooplankton



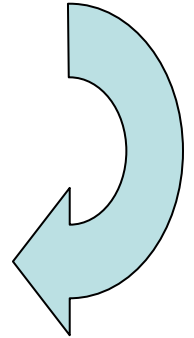
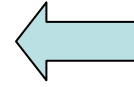
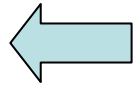
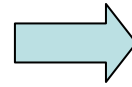
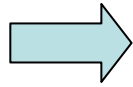
Shark



Seal

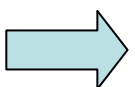
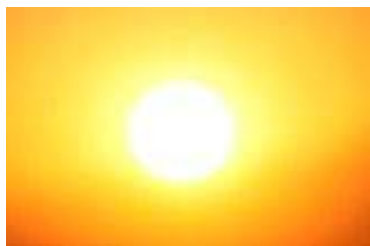


Mackerel

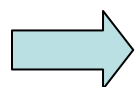
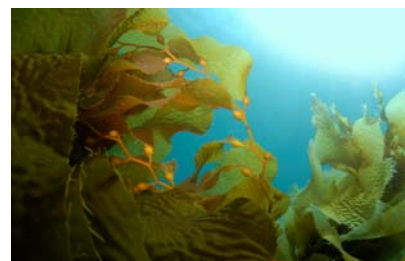


Food chain 5

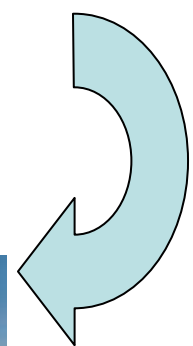
The sun



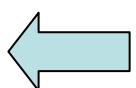
Phytoplankton



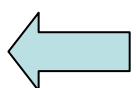
Zooplankton



Crab



Octopus



Sea Otter



Top of the food chain

Some animals don't have any predators. These animals can be described as the top of the food chain.

Nothing hunts the shark so it is top of its food chain.

Humans can also be described as top of the food chain.



Food webs

Most predators eat more than one type of food and most prey are eaten by more than one type of animal.

A Great White Shark eats tuna, seals and sea turtles as well as lots of other animals.

Plankton is eaten by Blue Whales, shrimps and jellyfish as well as lots of other animals.



Food webs

Food webs are a way of showing what animals eat.

They can show that a prey has a number of predators and predators have a variety of different foods which they eat.



How your food web should look

Diagram 1



Breaking the chain

The living things in a food chain depend on each other to survive.

If one part of the food chain dies out then the animals which consume that will either die out or have to find another prey. If they find a different prey then this can have an effect on another food chain.



Breaking the chain

It is important that humans take care not to damage food chains and eat sustainably sourced food.

Changes to the environment, caused by pollution or global warming can lead to certain animals becoming extinct, affecting lots of food chains.

We should do everything we can to protect habitats, food chains and the animals which depend on them.

