

Examples of impacts of climate change on the marine environment:

Algae and plankton are at the bottom of the food chain. Plankton includes many different kinds of tiny animals, plants, or bacteria that just float and drift in the ocean. Other tiny animals such as krill eat the plankton. Fish and even whales and seals feed on the krill. In some parts of the ocean, krill populations have dropped by over 80 percent as a result of climate change. This has a massive impact on the food chain of the marine environment

Coral is a very fragile animal that builds a shell around itself. It lives in harmony with a certain kind of colourful algae. The algae make food using sunlight, a process called photosynthesis. They share the food with the coral, and, in turn, the coral gives the algae a safe and sunny place to live. Fish love coral too, because there are lots of places for them to hide and live. Remember the film Finding Nemo! But the algae cannot carry out photosynthesis in water that is too warm. The algae either die, or the coral spits it out. The corals lose their colourful food sources and become weak. This is called coral bleaching, and it is happening on a grand scale in many places around the world.

Sea- Level rising - as the global temperature rises more sea ice and glaciers melt resulting in a rise in sea level. Water expands when it gets warmer, so thermal expansion of the oceans is also causing the sea levels to rise. This rise in sea level has many impacts for both the animals and plants dependant on the marine environment and for humans, in particular people living on the coastline.

Ocean Acidification – As the ocean absorbs more and more CO₂ it is also becoming more acidic. This is not good for marine wildlife, in particular for shell building animals such as mussels. In order for these animals to build strong protective shells they need to live in a slightly alkaline (less acidic) environment. Therefore, if the oceans are becoming more and more acidic these animals will not be able to build strong enough shells to protect them from predators and from drying out. Ocean acidification can also have an effect on coral reefs as their structure is also made from the same shell-like substance.