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AN OCEAN FREE OF PLASTIC

The ocean is the life blood of the planet earth and human kind. Ocean can be seen to be as a large body of water constituting a principal part of the hydrosphere. The ocean is the entire body of salt water that covers more than seventy percent of the earth's surface. Precipitation causes fresh water and chemical compounds to be released from the atmosphere into the oceans. Some of the inorganic salts and other chemical compounds become dissolved in the ocean water once they reach the ocean. Sodium, chlorine, magnesium and calcium are inorganic salts that become dissolved in the oceans. Ocean water is approximately ninety-six percent pure water and four percent naturally occurring dissolved substances.

Our future lies in the ocean, oceans are the cradle of life contributing fundamentally to the earth's functioning through their sheer size, productivity, biomass and diversity! Over ninety-five percent of the volume of the biosphere is occupied by marine organisms, inland and offshore water provide resources and services estimated as sixty percent of the total economy value of the biosphere. The ocean produces more than half of the oxygen in the atmosphere and absorbs the most carbon from it.

The ocean itself has some problems which includes overfishing, which drains the life from the water, ocean acidification, mercury pollution and so on, but, the most alarming of them all is the plastic pollution in oceans which has caused damage to the oceanic lives of today.

Plastic is the name given to a group of substance made from carbon-based molecules arranged in many repeat units in a long chain known as polymers. Most plastics are derived from petroleum although some newer ones, known as

bio plastic are derived from building blocks produced by microbial fermentation or from corn syrup. Chemicals including colourants, foaming agents, plasticisers, antioxidants and flame retardants can be added to different types of plastic to give them special qualities such as colour, texture, flexibility and durability.

The world's first fully synthetic plastic was Bakelite invented in New York in 1907 by Leo Baekeland who coined the term plastic. Many chemists have contributed to the material science of plastic including Nobel Laureate Hermann and Hermann Mark known as the father of polymer physics

The success and dominance of plastic starting in the early twentieth century led to environment concern regarding its slow decomposition rate after being discarded as trash due to its composition of large molecules.

Plastic has its own advantages despite the problem it's causing in the oceans which includes; light weight, low cost, durability, ability to be recycled, versatility, odorless, non-conductivity, transparency, heat resistant and so on.

Plastic gets into the ocean through various means some are; illegal dumping of rubbish, cosmetic which contain pieces of plastic known as micro beads are washed directly down the drain from face scrubs. As many of these micro beads are too small to be filtered out by waste water plants these plastic pieces are retained in water that may end up flowing into the ocean. Plastic can also get into the ocean through industrial leakage.

It has been figured out that plastics are also homes to microbes in a phenomenon called the plastisphere. These microbes may be simply using the plastic to float around the ocean but there are some evidence that they may be playing a role in breaking down the plastic.

The presence of plastic in oceans has caused sea creatures to be starved of nutrients. The aquatic animals eat plastic thinking they are food and consequently die from lack of nutrition. Whales and other aquatic animals are being found decreased. Is this the legacy that we want to leave our future generation with? In the oceans today, there is growing concern about the trend of micro plastic.

As to every problem there are solutions, the increasing rate of plastic pollution in our oceans have solutions which includes cooking more at home to prevent eating outside thereby reducing the purchase of food and drinks

packaged with plastic products, recycling of used plastic, purchasing of items in bulk, putting pressure on manufacturers of plastic products. The government has a fundamental role in stopping plastic pollution in oceans which includes making laws that prevent people from dumping refuse into the ocean, and punish those who goes contrary to the rules put in place, setting up of agencies and organizations that will help in the recycling of used plastic materials in order to reduce the amount of waste needed to be disposed, placing of security officers who will guide and prevent those who will disobey the laws made and finally appointing people who will help in removing plastic materials which have already been dumped into oceans.

In conclusion, when our ocean is free of plastic we are sure of a healthy ocean which is accompanied by a healthy life. This may look tasking because one may seem to be one in a million, but by doing the right thing not disobeying given orders, not disposing used plastic product illegally, you are making a vital contribution.