

THE FUNCTIONS OF THE SEA

INTRODUCTION

If you see a picture of the earth taken from a spaceship, you will discover its beautiful blue colour. This beauty of our earth graced by the presence of water is what gives it other name, the "**water planet**." Among the other planets in the solar system, as far as we know, the earth is the only one with oceans.

The term sea refers to certain large bodies of water, but there is inconsistency as to its precise definition and application. Colloquially, the term is used as a synonym for ocean.

In biology, the term **sea** describes a large expanse of saline water connected with an ocean

THE SEA

Seawater's constituents

Most of seawater's constituents are **inorganic ions**.

Sodium and **chloride** are the two primary ions in seawater.

The next two most common ions are **magnesium** and **sulphate**.

Together, these four ions comprise almost 96% of the weight of ions present.

The ocean is alive

The sea appeared on earth soon after the earth was created, and from it came the first signs of life. Human beings and other living things can all be traced back to the sea, meaning that it was our "first home." Even now, no matter how advanced our society becomes, all living things on earth, including us human beings, could not exist without the sea. Humans and other creatures that live in the same area maintain a very close, interrelated balance with each other. The ocean is part of this balance, and it is easily affected by any changes. When people catch too many fish, this balance is destroyed, and it damages the ocean's health.

Purposes of the sea

The sea has many purposes such as supplying food, energy and various resources.

It is also used to transport people and goods.

Finally, it helps balance the climate of the entire world and releases oxygen into the atmosphere.

A GIANT GARBAGE DUMP

What is the largest **garbage dump** in the world? Sadly, the answer is "the sea!"

About 3.5 billion years ago the first life on Earth emerged from the ocean. So, it makes sense to think of the sea as our home.

But, now the sea, our precious home, is a garbage dump.

Plastic bags, plastic bottles, cooking oil, leftover food, cleaners, empty cans, oil leaked from tankers are kinds of garbage thrown into the sea. Even cars and submarines have been dumped at the bottom of the deep sea.

The cycle of garbage

Most garbage on the beach flowed from rivers out to the sea and then washed back up on the shore.

The garbage found on the beach comes from everyone, everywhere.

GOOD ATTITUDE TO RESPECT ENVIRONMENT

If we throw away used cans or snack wrappers into a river after playing at the riverside, they will reach the sea and will make seabirds and fish suffer.

Bring your **trash** back home with you. Also, by picking up trash you see along the riverside, it is helpful not only for the rivers but also for the sea.

Wastewater in our house

Without our knowing it, **wastewater** from households is contaminating the rivers and oceans. In our houses, wastewater is generated in the kitchen by washing vegetables and dishes, and in the bathroom by washing our bodies and hair, and by flushing the toilet.

Self-cleaning

Usually, rivers and seas can become clean by themselves if the **contamination** is not too severe. Today though, with so many people dumping various wastes into drains and other waterways, this kind of "**self-cleaning**" is getting more and more difficult. As a result, river and ocean **pollution** is becoming a serious issue.

Let's protect our rivers and oceans!

Sustainable Fish Catch

Do you know about any of the plans or activities that protect our precious seas?

First of all, setting a limit on **fish catches** and staying within that limit is one solution against **overfishing** (catching fish faster than they can reproduce). The fish population will naturally increase year to year as long as we don't catch more fish than can be replaced naturally, so we can continue fishing forever. The amount which is set for this limit is called a "**sustainable**" fish catch. The word "sustainable" means it can continue forever.

In order for fishing limits to work, it is necessary for countries, especially those around a common sea, to cooperate in protecting fish.

THE LAW OF THE SEA

The United Nations Convention on the Law of the Sea, or simply called "the Law of the Sea," is an international agreement about the rules governing the sea. It has many important laws designed to **protect the sea** and to **prevent pollution**.

Keep in Mind!

It's important to be careful not to pour water with waste in it into **drains**. We should keep in mind that even though we can't see it, oil and detergent poured into kitchen sinks travel through rivers and flow into the sea. Therefore, before throwing **garbage** into rivers or the sea, or before pouring waste liquids into the sinks, just think about the invisible effects.

The most important thing is how we think and act as individuals. After reading this text, you will know the functions of the sea and its importance. Maybe it will make you think, "We are so lucky to have the sea!" "It's a terrible waste to pollute the sea!" and "How can we save the sea?"

Please think of one or two things you can do to help the sea. Then it is up to you to bring your ideas to life. Without action, your good ideas can't take effect.