ENVIRONMENT OF THE SEA

~Beach's aprearance ＆Micro-plastic's problem~

"INTRODUCTION"

Have you ever been to the beach? Oceanic pollution has become a problem in the world. This poster will talk about the environment of the sea, some environmental problems like the micro-plastic problem and the apperance of the beach. I was intrested in the sea since I was a little child, so I searched about it when I was a junior high school student. Therefore I want to save the sea.

"PURPOSE"

The purpose of this investigation is to increase my know-ledge of the environment of the sea and micro-plastics. I want to find a solution to the micro-plastic problem by learning more about them; for example, how could we recycle them.

"METHOD"

Garbage survey on the beach.
- Find out what kind of garbage is on the beach.
- Take some pictures.

Observation of micro-plastics.
- Use a microscope and take pictures.
- Observe the state of the micro-plastics.

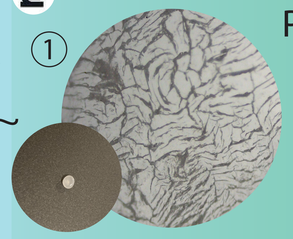
"HYPOTHESIS"

I think that micro-plastics are everwhere. The most abundant type of garbage will be plastic bottles and the surface of the micro-plastics will be bumpy and dirty.

"REFERENCES"

WATER STAND
https://waterstand.jp/waterlife/water_environment/waterlife00067.html

プラスチックスープの海~北太平洋巨大ごみベルトは警告する~
Capt. Charles Moore/Cassandra Phillips. Trans.海輪 由香子. NHK. 2019, 349p

①


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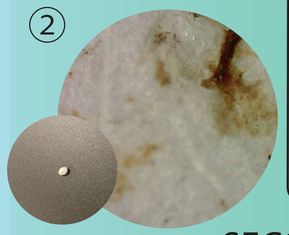
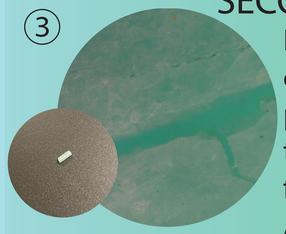


PRIMARY MICRO-PLASTICS

Plastics of 5mm or less.
They are the components of bigger plastic products.
For example, resin pellets and very small plastics that are included in toothpaste. They are very difficult to pick up, because they are too small. As a result of observing them with a micro-scope, they are finer than secondary micro-plastics. (Picture①)

③


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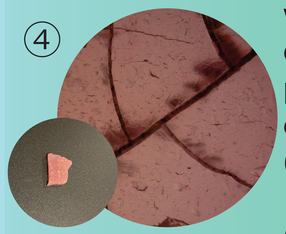

SECONDARY MICRO-PLASTICS

Plastics of 5mm or less, but they come from deterioated plastic products. They are sensitive to the sun's UV rays and physical friction, such as waves and rocks. As a result of observing them with a microscope, the cracks are deeper than in primary micro-plastics, the cracks are larger, and dirt was seen in the cracks. (Pictures ③ and ④) Brown stains were observed on the styrofoam. (Picture②)

"DISCUSSION"

There is a lot of garbage on the beach, such as plastic bottles, glass, ropes and styrofoam used in fishing. On the beach, most of the garbage was plastic waste. And micro-plastics have a lot of dirt, so it will become difficult to remove the dirt. The dirt was diffierent by primary micro-plastics or secandey micro-plastics.

"CONCLUSION"

Many polluants, such as pesticides and incecticides, are attached to micro-plastics. If the dirt in micro-plastics is not removed, they can't keep their purity, so we can't recycle them after they have fallen into the sea. I want to find a solution on how to remove the dirt from micro-plastics and how to reuse micro-plastics. I think that the number of micro-plastics is going to keep on increasing if we don't stop using plastic products. Now, There is a lot of garbage on the beach, so we have to use as few plastic products as possible to clean the sea.
For example, using an Eco-bag for shopping and recycling.