

Save our Seas by reducing your use of Plastics

Eco-Schools/GLOBE committee

Gozo College Rabat Primary School, Victoria

Introduction

The seas are an integral part of the human and animal lives on planet earth. Oceans give us 70% of the oxygen we breathe and has an impact on climate change, so we need to care for it. We put forward a simple question, "Is there a problem with our oceans today?" Yes, waste, especially one-time use plastic waste which doesn't get recycled has had a negative impact on the seas affecting our food, water, etc. We decided to take a deep look into why this is happening.

Since we live on an island, we are surrounded by beaches/bays, they are all around us. We started out by choosing one area – Xwejni Bay in Marsalforn, Gozo, Malta. This is mainly a rock beach.

At first glance you don't see any plastic on the beach or in its waters. But getting onto the beach was a different story altogether. We wanted to know if this waste is affecting our seas to be more specific – The Mediterranean Ocean. We were amazed to find that this was on the beach we sunbath and swim in.



Xwejni Bay, Marsalforn, Gozo, Malta

Research Questions

- Is it possible to make the general public aware of the impact of plastics and what they can do to better safeguard our waters for us and future generations?
- What are the effects of plastic litter on the coastal environment?

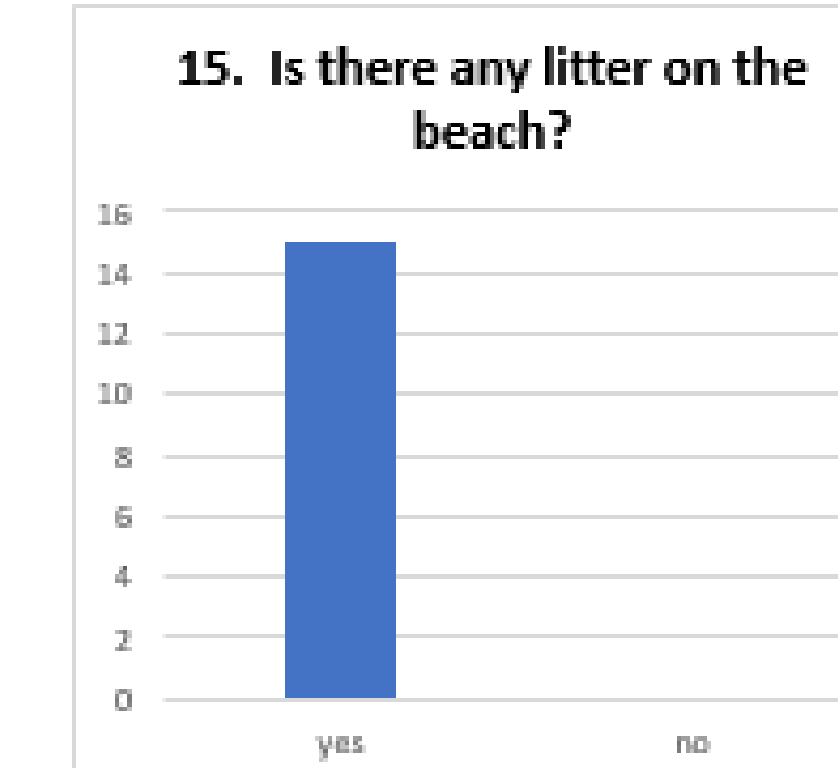
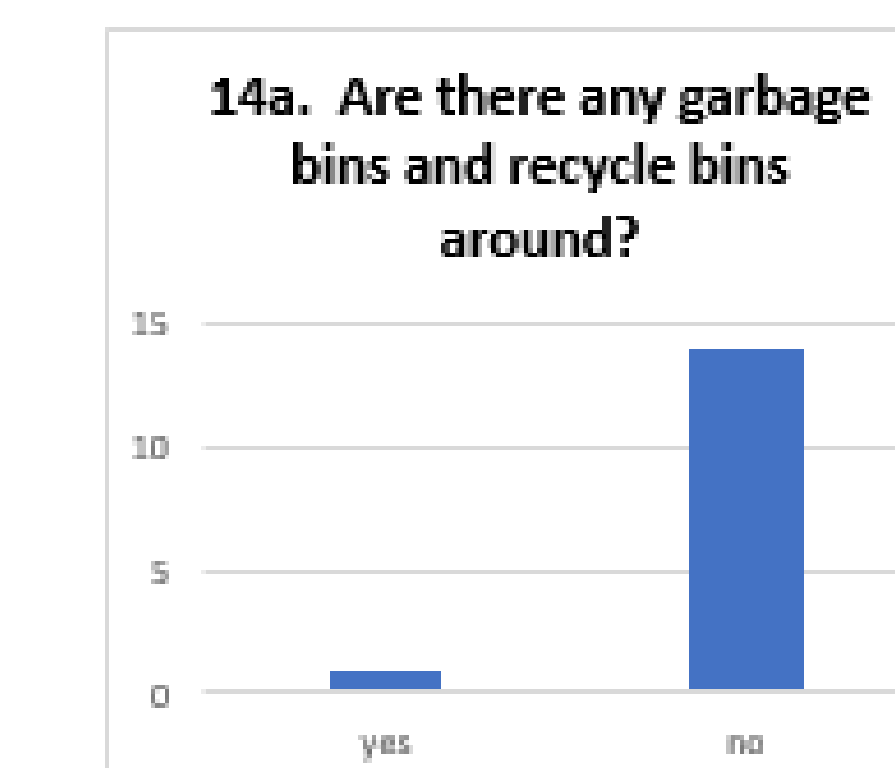
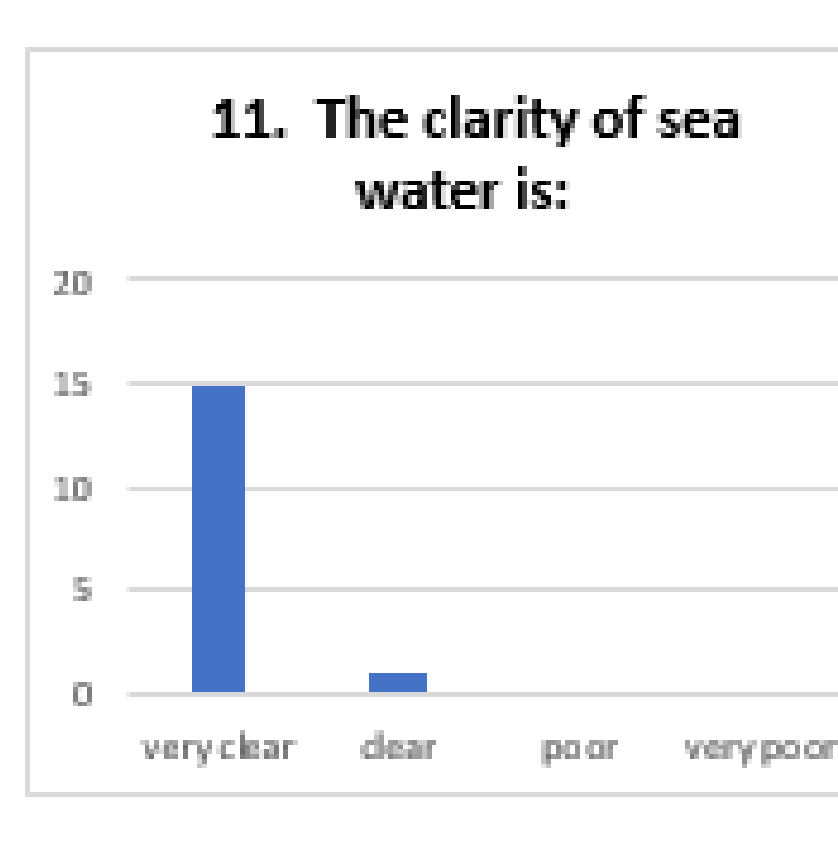
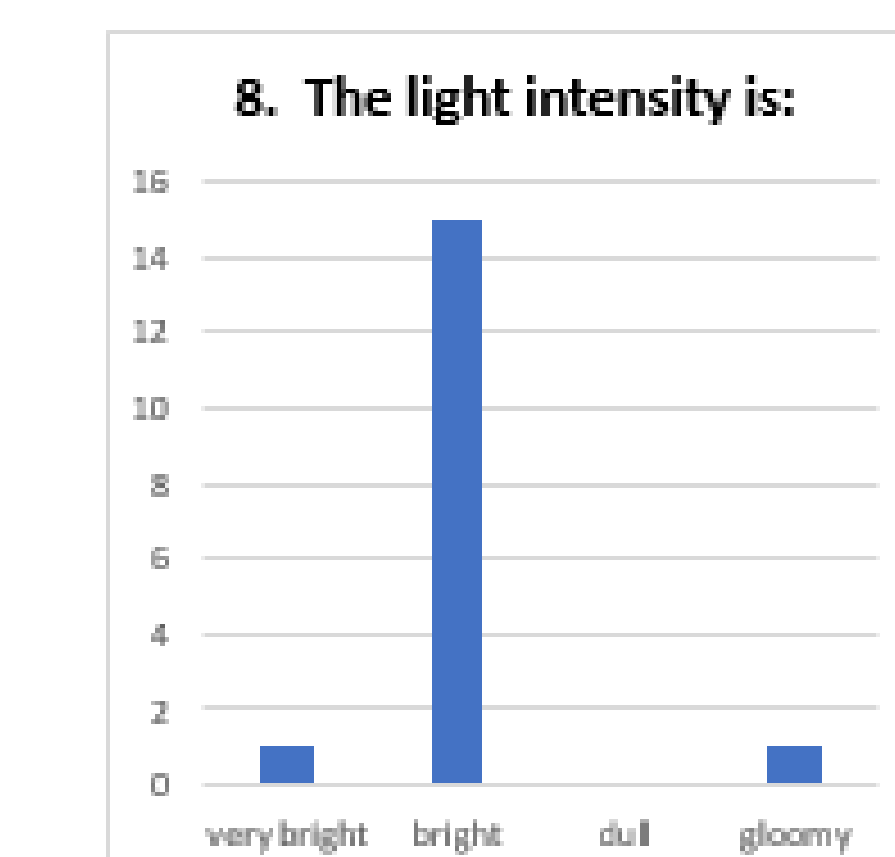
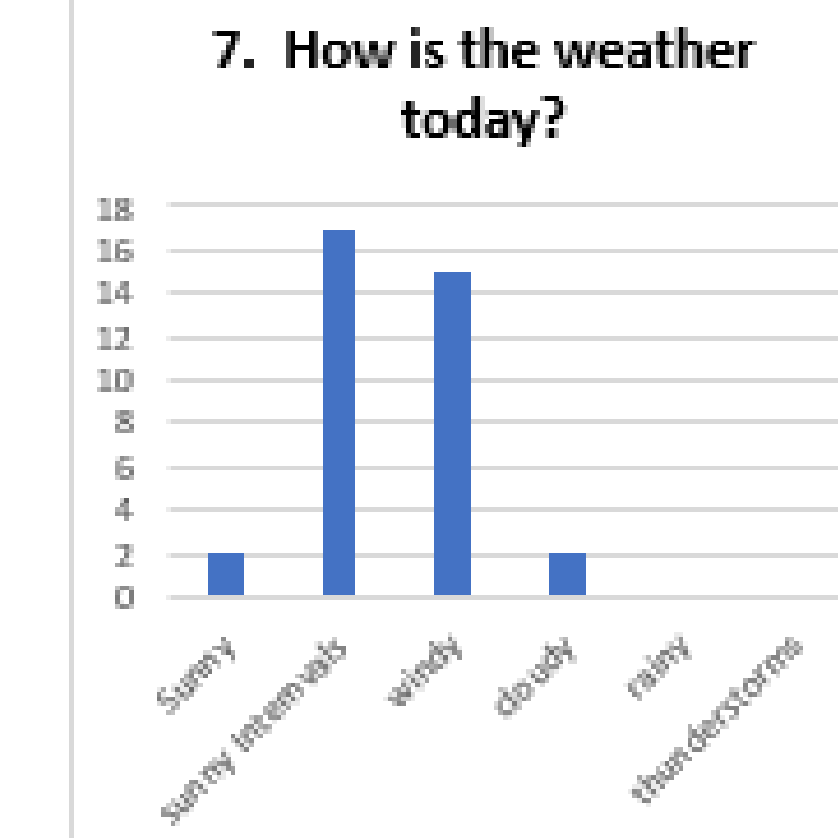
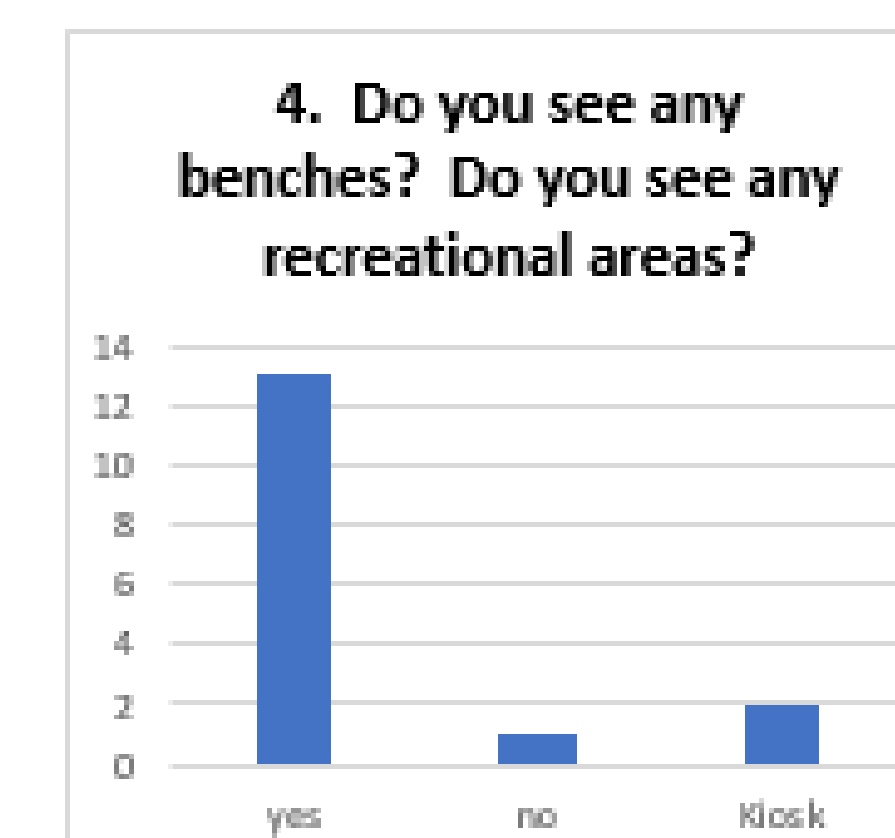
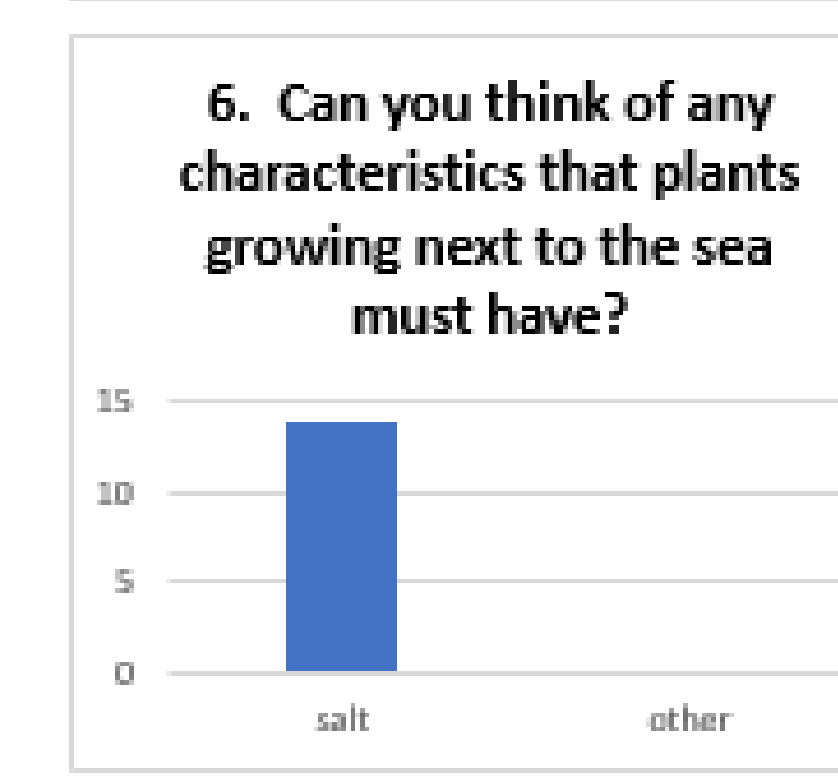
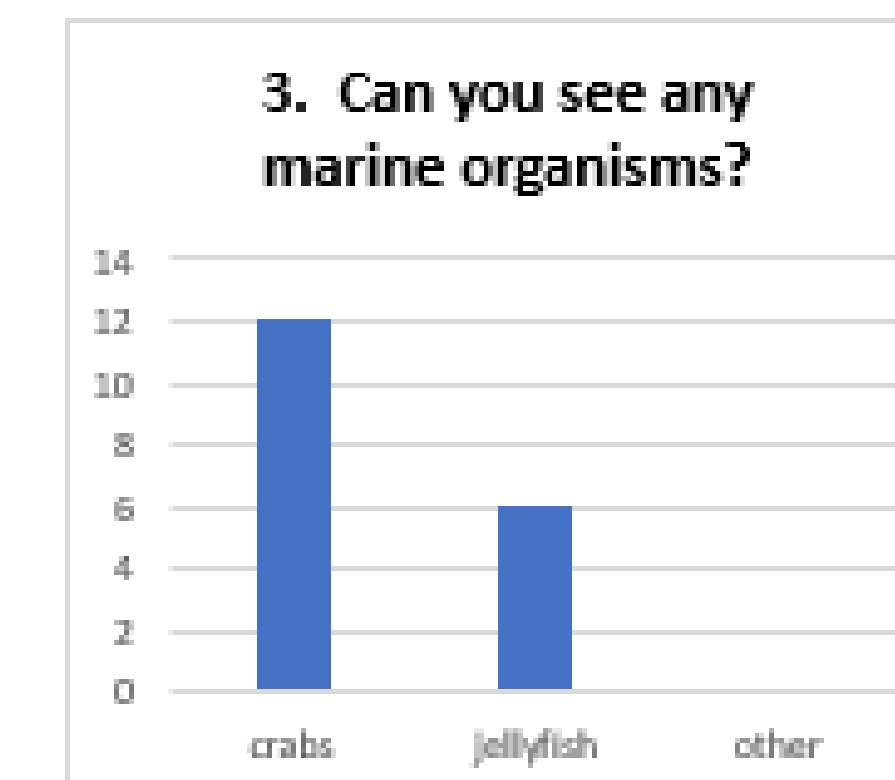
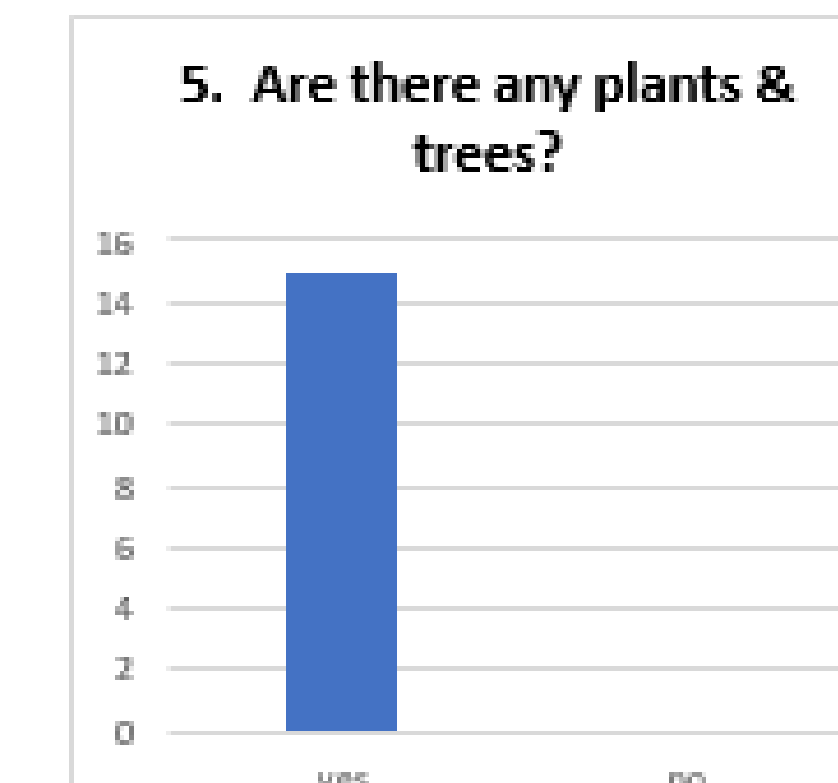
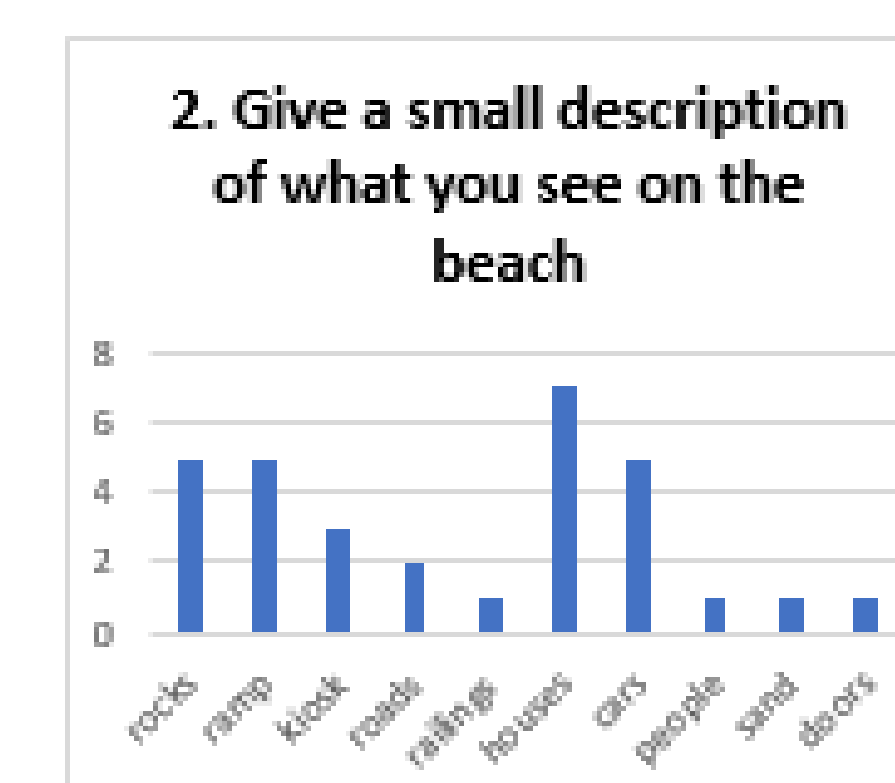
Research Method

The students measured sea water temperature, pH level, air temperature, air pressure and humidity. The students also observed and reported cloud cover and surface conditions. They also sampled shingle/sand for microplastics using a handheld digital microscopes attached to mini laptops.



Results

After the fieldtrip at Xwejni Beach all data was analysed and presented in graph form.



Conclusions

From the fieldtrip it was concluded that the litter found at the beach was brought up by the waves. During this time of year fewer people visit and make use of the beach, in fact no human activity was reported at time of visit with kiosk and nearby restaurants closed. This highlights that marine litter is an international problem and waste generated by other countries affects everyone.

Thus a questions came to mind, "Is it possible to make the general public aware of the impact of plastics and what they can do to better safeguard our waters for us and future generations?" **YES, EDUCATE THEM TO DO BE BETTER!**

Was our fieldwork fruitful? What was our conclusion to our fieldwork? These are some of the questions put forward to our students/teachers/parents at the end of our investigation.

All in all, as per our students and parents, this was a productive, enriching and enjoyable outdoor learning session. To sum it up suggestions were put forward: More litter and recycle bins should be placed on the beach

Incorporating school lessons with our fieldwork. For example data collected during fieldwork was used during a Math's activity called 'X'hemM Jghaqqadna' (What connects us). This activity was conducted with Year 6 students during which they calculated recyclable and non-recyclable garbage by weight. Through Maths, students find ways to help and improve the environment.

Getting the word out there for all to benefit from a clean beach

Having posters made;

To show that our school children did a clean-up on the beach

Why is it so important to keep our seas/oceans clean – the ripple effect

And finally, it was determined that another outing, during the summer months when there are visitors, will be planned to compare our current data.

