



The Ocean and Plastic Pollution 2



Use the information and tasks on these pages to continue finding out about the ocean and the trouble plastic causes for marine life and potential repercussions of plastic in the oceans.

Task 1

Answer the following true or false questions from the WWF. Find out if your choices were correct at the bottom of the next page.

1. Oceans cover about 70 per cent of our planet's surface.
2. In the UK, we eat £2.5 billion worth of seafood each year.
3. Only 30 per cent of the ocean is protected.
4. Around half of the oxygen that we breathe comes from the ocean.
5. It can take fishing lines 300 years to degrade in the ocean.
6. By 2050 oceans could contain more plastic than fish.
7. About 75 per cent of plastic waste is properly recycled.
8. On average there are 358 items of litter per square kilometre on Britain's sea floor.
9. Over 80 per cent of pollution in the sea comes from activities that have taken place on land.
10. Microplastics are found in over 75% of mussels taken from British beaches.

Local councillor

Plastic rubbish is a big problem in Greensea Cove. They need visitors to keep coming to the beach (it brings in money) but it costs the council a lot to provide rubbish bins and recycling services. The council does not have a lot of money to spare and there are many service to pay for including local transport, care for the elderly, education services, libraries and parks. Who would pay for the rubbish disposal?



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Task 2 – Greensea Cove

These pictures show the wonderful seaside town of Greensea Cove.



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Recently, residents are finding that their seaside town is getting more and more polluted by plastics in the sea and on the beaches. They have decided enough is enough and so have decided to write letters to the local councillor, due to social distancing measures, to discuss the problem.

Read through the information about the local councillor at the bottom of this page. Read through the information about the other residents and choose to write the letter as one of them. We have included a table on the next page which shows facts about the causes of plastic pollution, impacts and potential solutions that you could use in your letter – this could also include your own facts from your tasks last time.

Resident of Greensea Cove

You moved to Greensea Cove to live near its beautiful beaches. But you have noticed that it's becoming more littered with plastic. You help to organise a beach clean-up every year, but the rubbish keeps piling up. Visitors enjoy picnics on the beach, but they often leave their litter behind. The rubbish bins are always full and litter blows into the sea. **You know that this pollutes the seas and can kill wildlife.**



Photo: Photopin

Manager of Greensea Cove Tourist Office

Tourism brings much-needed money into your quiet seaside town. But the beaches are full of litter and most of it comes from food packaging and plastic bags that people leave behind. You are worried that unsightly rubbish on the beach will keep tourists away. Hotels, shops and other local businesses will lose customers. **You believe the council should do more to clean up the beaches and provide better rubbish disposal and recycling services.**



Photo: Photopin

Supermarket manager

You are the manager of the supermarket in Greensea Cove. You know that your customers expect the best food at low prices. Plastic packages keeps your food fresh and clean. It's also strong, which means that less food is damaged when it is transported. This means that less food is wasted. **You want to keep your customers happy and keep prices down – after all, you don't want them to shop at a different supermarket!**

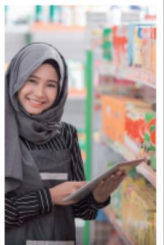


Photo: Photopin

Environmentalist

You are worried because of the plastic left on the beaches is polluting the seas and affecting wildlife. For you, the problem is not how to dispose of plastic waste, but how to make sure there is less of it in the first place. You believe that more than half the plastic rubbish that homes throw away comes from supermarket packaging. **You think that the supermarkets should pay a tax on all plastic packaging, just as they do on plastic bags.**



Photo: © WWF / iStockphoto / The Great

Causes	Impacts	Solutions
Throwing plastic in the bin when it could be recycled	Causes severe digestive problems that go untreated	UK Government has recently banned the use of microbeads
Plastic in the bin may go to landfill which can be blown away due to it being lightweight	Birds are tricked by bright colours of plastic waste which can lead to them being caught in debris – research has found 44% of all seabird species, cetaceans and sea turtles have plastic debris in or around their bodies	Carry a re-usable coffee cup or flask – around 2.5 billion coffee cups are thrown away every year in the UK (that’s seven million a day!)
Littering – rainwater and wind carries plastic into streams, rivers, drains and eventually to the sea	Studies have found that half of the sea turtles around the world have ingested plastic	Avoid using plastic straws where you can – they can take up to 200 years to decompose
Illegal dumping of waste adds greatly to the plastic surge in our seas	Other creatures in the food chain have an increased risk of eating plastic	Avoid using cling film – re-usable food papers can be used
Products that go down the drain, e.g. wet wipes or cotton buds	Studies have found that toxins in plastics cause several health issues including immune system problems	Use a reusable water bottle or shops to encourage people using their own
Microplastics/microfibres are released into the waterways when we wash our clothes in the washing machine	Plastic waste pollutes water when plastic breaks down. This also uses up oxygen as it breaks down, which badly affects the survival of marine animals	Invest in reusable containers and mugs
	Plastic can lead to the invasion of non-indigenous species which threatens marine ecosystems	

Answers to Task 1

1. True – oceans cover 71% of our planet's surface

2. False – In the UK we eat a staggering £4.5 billion worth of seafood a year (the most common are salmon, tuna and cod)

3. False – Only 4% of the ocean is under some form of protection. What do you think about this?

4. True – tiny marine organisms (phytoplankton) produce ~50% of the oxygen we breathe

5. False – according to some sources it can take twice as long (600 years)

6. True – we are producing 20t times more plastic than we did 50 years ago and this is expected to double in the next 20 years

7. False – just 9% of all plastics are recycled; ~40% ends up in landfill & one third in ecosystems

8. True – the amount of litter on Britain's sea floor has increased by 200% since 1992 and nearly 80% of this is plastic

9. True – most of our waste eventually reaches the sea

10. True – research has shown microplastics in up to 80% of mussels taken from British beaches!

Other facts you may wish to use:

In 1950, the world’s population of 2.5 billion produced 1.5 million tons of plastic; in 2015, a global population of more than 7 billion people produced over 320 million tons of plastic – this is set to double by 2034

Everyday approximately 8 million pieces of plastic enter the ocean

There may now be up to 269,000 tonnes of plastic (5.25 trillion macro and microplastic pieces) floating in the ocean

Approximately 5,000 items of marine plastic pollution have been found per mile of beach in the UK

How can I be persuasive?

Think back to when we made our persuasive speeches for people to join the Suffragette group – we used persuasive techniques that give the acronym AFOREST.

A – Alliteration

F – Facts

O – Opinion

R – Repetition / Rhetorical Language

S – Statistics

T – Triples (rule of three)

Useful Vocabulary		
shockingly	surprisingly	serious
staggering	irresponsible	recyclable
biodegradable	jeopardy	surely
clearly	definitely	possibly
must	should	

Sentence starters

How would you feel if...

I believe we must...

Do you think that it is acceptable that...

For sea creatures...

They are not the only organisms affected by this plight of plastic pollution...

It doesn't have to be like this...

Everybody knows that if...

Do we really need to...?

I strongly believe that...

It goes without saying...

If we act now...

Can you imagine a future where...

Do we want...?

If we choose to continue to ignore this plastic plague, we will...

In conclusion, I believe...