

Lesson 1

Impact of sea pollution

Before reading

1. Identifica la relación entre las imágenes y las palabras a continuación.

trash

household items

sea life

tide

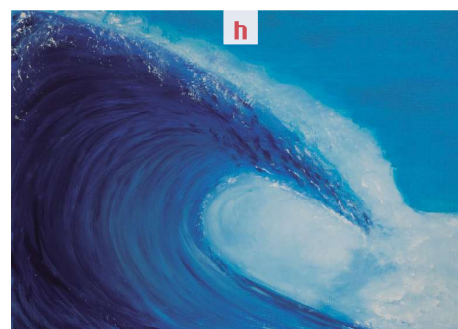
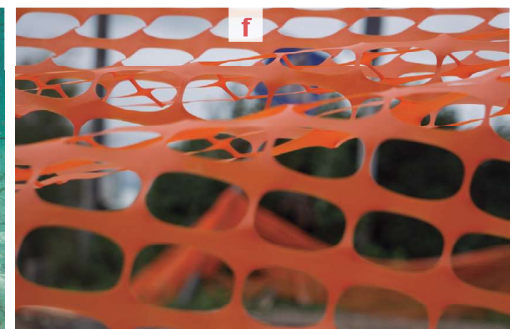
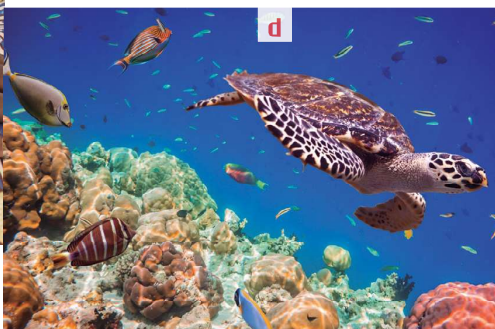
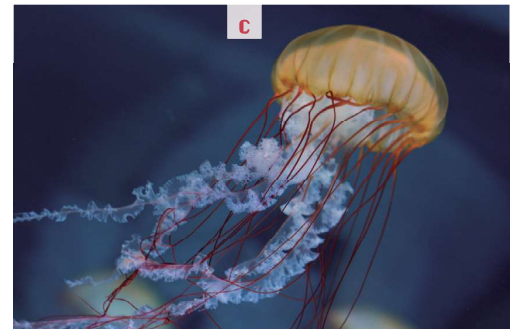
microplastic

plankton

jellyfish

plastic netting

recycling



2. Responde estas preguntas.

- What do you think are the major factors that contribute to sea pollution?
- How is sea life being affected?
- Which problems do you think the text will address?



While reading

1 Lee el texto y confirma tu predicción en la pregunta c del ejercicio 2

Palabras clave

- pristine
- swept
- dumped
- disposal
- outweigh
- resemble
- entangled

Estrategias a aplicar

- Skimming to find main and general ideas quickly.
- Scanning to find specific pieces of information.

Smart reading

1. Lee rápidamente el texto para obtener las ideas generales
2. Lee y responde las siguientes preguntas
 - a. What was discovered over the plastic?
 - b. What are some properties of plastic that make it a problem pollutant? Cite evidence from the text.
 - c. What was detected in 2015?
 - d. Why is wildlife at risk?



An Ocean of Plastic

Plastic is polluting the seas, but there's still time to turn the tide.

By Jennifer Barone

Today, it seems that no part of the ocean is safe from plastic. In recent years, oceanographers have searched in vain for a **pristine** marine environment. "It's a global problem," says Chelsea Rochman, a marine ecologist at the University of Toronto in Canada.

It was discovered that plastic harms wildlife and introduces dangerous chemicals into marine *ecosystems*. Once plastic enters the environment, it lasts a long time.

INTO THE OCEAN

When people litter, or when trash is not properly disposed of, things like plastic bags, bottles, straws, and foam beverage cups get carried to the sea by winds and waterways. About 80 percent of ocean plastic originates on land. The rest comes from marine industries such as shipping and fishing.

In 2015, it was calculated that at least 8 million tons of plastic trash are **swept** into the ocean from coasts every year. That's the equivalent of a full garbage truck of plastic being **dumped** into the sea every minute. If current trends in plastic production and disposal continue, that figure will double by 2025. Last year, it was predicted that by 2050, ocean plastic will outweigh all the fish in the sea.

NOT-SO-FANTASTIC PLASTIC

In today's world, plastic is everywhere. It is found in shoes, clothing, household items, electronics, and more. There are different types of plastics, but they are all made of *polymers*—large molecules made up of repeating units. Their chemical structure gives them a lot of advantages: They're cheap and easy to manufacture, lightweight, water-resistant, durable, and can be molded into nearly any shape.



Unfortunately, some of the same properties that make plastics great for consumer goods make them a problem pollutant. Plastic does not *biodegrade* or break down naturally. It just fragments, or breaks into tiny pieces known as *micro plastic*, and can stick around for hundreds or perhaps even thousands of years.

Also, as plastic contains dyes and flame retardants, when it is not disposed of properly, those additives end up in the environment.

Plastic also tends to absorb harmful chemicals such as pesticides and industrial chemicals. So, if marine organisms eat that plastic, they may be exposed to higher concentrations of these contaminants.

WILDLIFE AT RISK

One of the biggest impacts of plastic pollution is its effect on sea life. Seals, sea turtles, and even whales can become entangled in plastic netting. Sea turtles eat plastic bags which **resemble** jellyfish, and pieces of micro plastic can resemble plankton, small organisms that many marine animals consume. In 2015, it was detected that nearly 700 marine species have been observed **entangled** with or eating plastic.

Plastic and its pollutants can even make it into our own food supply. That means we are eating plastic, too.

TURNING THE TIDE

It was determined that one way to keep the ocean cleaner and healthier is through cleanup efforts. Scientists are also working towards new materials that are safer for the environment such as a new polymer that breaks down more easily in seawater. Disposing of plastic properly for recycling or trash collection is a key step.

Adapted from: An ocean of plastic. Retrieved from <https://scienceworld.scholastic.com/issues/2016-17/041717/an-ocean-of-plastic.html#1050L>

Tu análisis

1. Lee las ideas a continuación y describe las consecuencias que pueden llegar a tener.
 - a. Once plastic enters the environment, it lasts a long time.
 - b. About 80 percent of ocean plastic originates on land. The rest comes from marine industries such as shipping and fishing.
 - c. Scientists are also working towards new materials that are safer for the environment.



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