

UNIT 4: THE HYDROSPHERE

OIL SPILL

Dear language assistant,

This class is for showing a [presentation about oil spills](#). Here you can see some comments for the slides. The students have to listen to your explanations and they have to copy some slides which include small summaries. You can recognise them because they are written in capital letters.

1. Title. (tell de students spill means derramar-verter and oil-spill means marea negra).
2. The accident of Prestige took place on the 13rd of November 2002, near Galicia. The oil tanker (petrolero) Prestige was a 26 years old ship. It was loaded with more than 77,000 tons of fuel. Six days later the ship broke in two parts. Since then, innumerable black spots (manchas) arrived to the Galician coasts destroying an important part of their natural wealth. Galicia has lived one on the worse economic and environmental catastrophes of its history. Today we are going to study the causes, the consequences and the ways to fight against oil spills. This is the Prestige. It's broken in two parts. It was floating like this several days before it sank (hundirse) to the bottom of the sea. Many oil spills are caused by accidents of oil ships. But there are other important causes.
3. This is an oil rig (plataforma petrolífera) inside the sea. If it suffers an accident it can cause an oil spill too. One of these towers sank of the Brazilian coast some years ago.
4. Look at this ship spilling oil. Sometimes it's an accident but sometimes it's due to the cleaning works inside the ship. It's forbidden; they must clean it at the ports but they don't go there because it is expensive. Most of the oil pollution in our seas is not accidental but deliberated. Coasts of Cadiz suffer this pollution because there are many ships sailing through the Strait of Gibraltar. In Algeciras Bay fuel is transfered from a ship that works as a petrol station to other ships travelling through the Strait of Gibraltar.
5. This slide summarise the information of the previous pictures. Students can copy it. **OIL SPILL: CAUSES. a)oil tanker accidents, b)oil rigs at sea, c)transferring, unloading and cleaning of tankers.**
6. Now we are going to study the consequences of an oil spill, like the Prestige disaster.
7. First of all, consequences on the living beings. Marine birds die because of the oil. Their bodies get dirty and they can't fly. Some of them can be rescued and cleaned but most of them die.

8. Many fish also die. They take oil and it is a poison (veneno) for them. So many animals die impregnated and poisoned but many others are going to die slowly not directly taking oil.
9. A big fish can eat poisoned food during a long time (without dying) but, in the end, it will become ill. Look at the big fish eating a medium fish and this one eating a smaller one. But, what do they eat? They eat plankton.
10. Plankton is made up by very small living beings floating in the water. We can't see them. We need a microscope. Here you can see some species, they are tiny algae (seaweed). They need solar light to live and they are the food for many small animals...
11. These little animals are also part of the plankton. They eat tiny algae and they are the main food for other animals like fish, shells, sea urchin... Remember plankton is the food for whales, too.
12. Oil floats so there is a layer of oil upon the water. This is a problem because this layer prevents light to go into the water. So tiny algae can't get light to do photosynthesis and if there are no plankton there are neither other animals. Besides oxygen can't get into the water and animals can't breathe.
13. Galicia is very famous because of its seafood. Here you can see mussels (mejillón), crabs (cangrejos) and some prawns (gambas, king prawn=langostinos).
14. Fishermen can get fish and seafood from open sea but very often, in Galicia, they have put very big cages (jaulas) and animals grow up inside these cages. So fishermen have to wait they to grow up and collected them. This image is very common at "Las rías gallegas" (Galician coast)
15. Here we can see a woman collecting mussels. Mussels use to live on the rocks at the coast. They need clean water and very lively water (rough sea). You can collect them when tide is down. How did the oil spill affect them?
16. Here are mussels covered by a dirty black substance? What's that? Would you eat these mussels? People who collect them have been out of working during months and, in some places, they aren't collecting mussels yet.
17. A beach in Galicia. Although Galician climate is not so warm as Andalusian one many people like going to these beaches in Summer. It's an attractive place for tourists who like fresh weather. Besides there are many interesting monuments in Galicia, above all, churches, convents and monasteries built up in the Middle Ages.
18. Do you think tourists like going to this beach?
19. This slide summarise the information of the previous pictures. Students can copy it. **OIL SPILL: CONSEQUENCES. a)Animals covered in oil, b)Poisoned**

- animals, c)No oxygen and no light, d)No plancton, e)No fishing, f)No tourism.**
20. Solutions.What to do before the disaster? Can we prevent it? What to do if we have an oil spill?
 21. Floating barriers to round the oil spot. Then we can aspire the oil and get it out by ship.
 22. The same idea
 23. These are machines to aspirate oil from the sea.
 24. When the oil spot is too big you can't round it with barriers. The spot caused by Prestige was too big. It affected Spain, Portugal and France. Barriers were use to avoid oil to arrive some interesting places like Rías Gallegas.
 25. These are fishing ships plenty of oil. These fishermen went out to sea to collect oil. They didn't wanted the oil to arrive to the coast. Oil is bad on the high seas but it is worse on the coast. So they caught the oil as they could. Often using a simple shovel (pala). Imagine a man with a shovel in the middle of the sea. Then they came back to the port and unloaded the containers full of oil.
 26. Unfortunately oil arrived at the coast. Thosands and thousands of volunteers went to Galicia to clean the coast. Some young people from Ubrique were there, too. You can see the hard work at the beggining. It seemed you woud never finish collecting oil.
 27. And when the beach seemed to be clean they found more and more little "biscuits" of oil (fuel was very dense). Sometimes under a very clean layer of sand there were many biscuits.Cleaning the beach was a very hard work but imaging cleaning the rocks.....
 28. That was a terrible work. Days and days and you hardly see the difference. Fuel was like glue. How many days will you need to clean these stones only with your hands?
 29. Another bucket (cubo).
 30. Team work
 31. When the beaches were clean (more or less), they have to follow cleaning the rocks. Now with pressurised hoses(agua a presión)
 32. Summary: **WHAT TO DO? a) Floating barriers, b)Vacuuming oil out of the sea, c)Cleaning oil from the beaches, d)Washing the oil off the rocks.**
 33. Más vale prevenir que curar or Better safe than sorry. **PREVENTIVES MEASURES: a)Better ships (two hulls=doble casco), b)Forbid unsafe ships**

from sailing, c)Stop using oil (less oil, carbon and gas, solar power, wind power, water power).

34. By the way, do you use oil? We are all responsible

Thank you