COCAINE FOUND IN BRAZILIAN SHARKS

Scan to review worksheet

Expemo code:
1EQT-D1L7-A0F

1 Warm up

Look at the pictures and discuss the following questions.

Picture A

Picture B

Picture C

Picture D

1. How do you think drugs like cocaine end up in the ocean?
2. Why is plastic waste dangerous for marine animals?
3. How can marine research help to protect aquatic life and human health?

2 Vocabulary

Add vowels to create words that match the definitions.

Group 1

1. **tw _ st (n)** - an unexpected development in a situation
2. **gr _ _ ndbr _ _ k _ ng (adj.)** - new and innovative
3. **c _ nd _ ct _ d (v)** - carried out an activity or task
4. **d _ ss _ ct _ ng (v)** - cutting apart to study internal parts
5. **v _ ss _ ls (n)** - large boats or ships
6. **m _ t _ b _ l _ t _ (n)** - a substance produced during metabolism

Group 2

1. **sm _ ggl _ ng (n)** - the illegal movement of goods in or out of a country
2. **d _ mp _ d (v)** - disposed of waste or unwanted items carelessly
3. **s _ _ z _ d (v)** – taken possession of something
4. **_ st _ n _ sh _ ng (adj.)** – very surprising or hard to believe
5. **st _ rk r _ m _ nd _ r (n phrase)** - a clear and severe indication of something important
6. **cr _ c _ _ l (adj.)** - extremely important or necessary

3 Listening for gist

You are going to listen to a report about sharks in Brazil. What is the main idea? Listen to the audio first and choose the correct option.

1. ☐ A research team looked at the effect of drugs on sharks' livers.
2. ☐ Sharks in Brazil have been made to eat cocaine as part of an experiment.
3. ☐ Scientists made a surprising discovery about marine life in South America.

4 Watching for comprehension

Watch or listen to the report again and complete the following sentences with one or two words.

1. Brazilian _____ sharks were found to contain cocaine.
2. All _____ of the sharks tested positive for cocaine.
3. Scientists were able to detect drugs by using _____.
4. Drugs were found more often in the _____ of the sharks than in their livers.
5. The US Coast Guard _____ huge quantities of drugs last year.
6. The discovery raises _____ about the consequences of human activities.

5 Reading: forever chemicals

You are going to read a short text about PFAS. Scan the text and choose the correct preposition for each gap.

The dangers of forever chemicals

PFAS are often called 'forever plastics' because they don't break down **in / out / with**[1] the environment. They can end **in / on / up** [2] floating in oceans and rivers, where they are harmful to marine life. Aquatic animals, such as fish and dolphins, can take in PFAS **by / from / with** [3] water, food, or sediment.

When marine animals absorb PFAS, these chemicals can affect their health. PFAS can interfere **at / to / with**[4] their growth, reproduction, and immune systems. For example, fish exposed to PFAS might have problems reproducing or getting sick more often. This can also affect animals higher **by / out / up** [5] the food chain, including humans, who eat seafood.

Addressing the problem of PFAS is important **for / in / with** [6] protecting marine life and the health of our oceans.

sources: epa.gov, chemtrust.org

6 Talking point

Discuss the following questions.

1. What effect do you think chemicals can have on aquatic animals?
2. Who should be held responsible for plastic pollution?
3. Should there be more rules to protect sharks and other aquatic species?

7 Scanning for vocabulary

Skim-read the article on page five about how drugs are affecting marine life and find the following words that match the definitions below.

Group 1

1. _____ (adj., para. 1): related to activities done for enjoyment or pleasure
2. _____ (n, para. 1): medication used to relieve symptoms of depression
3. _____ (n, para. 1): a hormone involved in the development of female reproductive features
4. _____ (v, para. 1): cause to develop or behave in a way considered typical of women
5. _____ (n, para. 2): substances made from two or more chemical elements
6. _____ (n, para. 2): substances that pollute or make something impure

Group 2

1. _____ (n, para. 2): chemicals used to kill or control pests
2. _____ (n, para. 3): drugs or substances used to treat or prevent diseases
3. _____ (n, para. 3): wastewater and excrement in sewers or drains
4. _____ (n, para. 3): the release of substances into the environment
5. _____ (n, para. 4): distinct parts of an economy, industry, or field of activity
6. _____ (v, para. 4): act in accordance with rules, regulations, or requests

High levels of drugs found in sea off English coast

Study says marine life being harmed by drugs in wastewater

1. A study looking at water pollution on the south coast of England has revealed high levels of harmful chemicals, including recreational drugs and antidepressants. Scientists involved in the research say marine life is in serious danger, pointing to evidence that oestrogen in water can even feminise male fish. Bianca Carr, the co-founder of the Clean Harbour Partnership (CHP) that organised the work, said: "We are looking at what's in human waste. We know the chemicals that are in it, the next step will be to look across the UK at what cocaine and other human drugs are doing to our water, to our food chain."
2. In more than 288 samples, researchers have so far found more than 50 chemical compounds across some of the 22 sites. Prof Alex Ford, from the University of Portsmouth's School of Biological Sciences, said: "This project is enabling us to see what chemical contaminants are in our marine life and coastal waters. We have found a large variety of illegal drugs, plus a variety of pesticides in marine organisms, such as crabs. This is important, because we know that aquatic ecosystems are under threat from drugs and farming practices."
3. Ford has previously published research showing that even tiny quantities of antidepressants in water can affect wildlife. Drugs will affect the behaviour and biology of these creatures, including causing them to change colour or reproduce in a different way. Ford said: "The release of human pharmaceuticals into aquatic ecosystems is an environmental problem we should consider seriously." The professor called for a full public inquiry into the actions of water companies as sewage discharges into rivers and coastal waters more than doubled to record levels in England last year, new figures show.
4. Campaigners have also been highlighting the amount of waste entering Britain's seas in recent months. However, Southern Water said removing chemical substances from wastewater was not asked for by the Environment Agency. The director of wastewater operations, John Penicud, said: "Removing 'forever chemicals' is a global challenge that requires close collaboration of industry, agriculture, and other sectors, including water companies and regulators. Our processes already comply with strict Environment Agency rules."

sources: theguardian.com, independent.co.uk

8 Reading for comprehension

Read the article on page five in more detail and decide if the following statements are true (T) or false (F).

1. Some types of marine life have high levels of drug use. _____
2. Bianca Carr hopes to look at the effects of the drugs. _____
3. All of the samples taken contained chemicals. _____
4. Drugs can alter how different species look. _____
5. Professor Ford believes there does not need to be any further investigations. _____
6. Southern Water has not done its job to remove chemicals. _____

9 Optional extension / homework

Write an essay agreeing or disagreeing with one of these statements.

1. "The discovery of high levels of cocaine in sharks will affect environmental policies."
2. "Recycling programs need to be improved to reduce the amount of waste entering the ocean."
3. "Stricter rules should be introduced to stop drugs from contaminating marine environments."

You should:

- write at least 250 words,
- check your grammar, spelling, and punctuation.