

Topic 4: Nature, the environment and energy

About Topic 4

The **Nature, the environment and energy** topic includes fossil fuels and renewable fuels, climate change, threats to the environment (deforestation, pollution etc) and their effects, the biosphere, and animal life/human attitudes to animals.

In this topic, remember to show that you can write in an impersonal, academic way, even if you feel strongly about something. Remember that emotional words such as *terrible, shocking, disgusting* or *wonderful, fantastic, brilliant* cannot be used in Academic English essays of this type. You can use Academic English such as *regrettable, worrying, inadvisable* or *admirable, helpful, invaluable* instead, which are more accepted in these situations.

This topic is often used for Ideas>Cause/effect type Tasks.

Topic 4 example Task

Pollution of rivers, lakes and seas is a major concern for people who seek to protect the environment. What are the possible causes of water pollution, and what effects does this have on animal life and human society?

Explanation of the Task

This is an Ideas>Causes/effects type Task. It does not ask for your opinion, but it wants you to think of some possible ideas on the topic. You should introduce the topic, describe two or three causes, then two or three effects, and then summarise briefly.

Band 9 model essay

Water **contamination** is a serious form of pollution, and one that can be challenging to rectify. There seem to be two main causes involved, and a variety of damaging effects on people and **the biosphere**, which we will discuss here.

Probably the main factor is the issue of **emissions** from cars, factories and other human activities. These emissions contain damaging **pollutant particles** which can contaminate rainwater **run-off** and thus enter **the water cycle**, by transferring through the water table into **aquifers**, streams and rivers. **Filtration** and processing are not really viable options for such large volumes of water, and so the **water table** remains **tainted** with these elements over long periods, as we see in Eastern Europe today. In situations where **soil erosion** and **logging** have already damaged the local environment, the accumulation can be very serious. The other major cause is accidental or deliberate **dumping** of **waste** products in places outside of controlled **landfills** or **waste processing** centres. Even small amounts of abandoned waste can enter water supplies through the ground, often undetected.

The effects on animal life can be severe, especially for species which are already endangered

by such threats as **poaching**, **habitat loss** and **food chain** disruption. Contaminated water can lead to **dwindling numbers** or even potential **extinction**, as may indeed happen to the Asian tiger populations. The impact on human society can also be distressing, including the poisoning of drinking water, **famine** or **drought** due to lack of safe **irrigation**, and long-term loss of land as we see, for example, after the Bhopal poisoning **catastrophe** in India. Such effects tend to have an especially grave impact on the very poorest in society, with the least resources to counter the environmental effects.

Overall, we see that emissions and dumping are the main origins of the problem, and that the effects on both humans and animals are **exacerbated** by the existing environmental, criminal or social problems.

(316 words)

Explanation of the topic vocabulary and examples in Speaking

contamination = pollution by poisons or dangerous elements

The atmosphere in large cities is often contaminated by smog, as we can see in China.

the biosphere = the relationship between all living things on the planet

Children should be educated on the biosphere through field trips and practical experiments.

emissions = gases entering the atmosphere

Scientists spend their whole careers studying the effect of emissions on the climate.

pollutant particles = microscopic elements of pollution

I remember going to a factory and seeing the snow covered with pollutant particles.

run-off = water that runs from the ground into rivers and lakes

We should try to collect and use more run-off water, to avoid having to recycle water so much.

the water cycle = the natural process of water moving from clouds to rain and seas

Scientists believe the water cycle is responsible for various natural events, especially in coastal areas.

aquifers = underground, natural water stores

My family have a well which connects to an aquifer, giving very pure water.

filtration = the process of filtering and removing impurities

Water filtration might be a solution to water shortages in very hot countries.

water table = the layer of water below ground

In my town, the water table is very high, and water will appear in even a small hole.

tainted = polluted or contaminated

The Mediterranean is badly tainted in some areas by sewage pollution.

soil erosion = the loss of soil by wind and rain activity

Deforestation has increased soil erosion seriously in Brazil.

logging = cutting down trees for timber and industrial use

Logging has endangered many species throughout the world.

dumping = leaving waste deliberately without storing or treating it

In most countries, dumping rubbish is a criminal offence.

waste = any material not wanted or needed after a process

In my country, we use waste from cotton manufacture for lighting fires.

landfills = organised areas where waste is buried in the ground

Surprisingly, Britain still sends most of its domestic waste to landfill sites.

waste processing = recycling or reducing waste into manageable forms

My brother has a waste processing company, which is subsidised by the local authority.

poaching = illegally hunting and killing animals

Elephant poaching should be a much higher priority for the world authorities, as elephants are an endangered species.

habitat loss = destruction or disappearance of an animal's natural home

Logging has caused substantial habitat loss for wildlife in many countries.

food chain = the natural system of animals eating other animals and plants

The food chain has been disrupted by the loss of certain species, with widespread impacts on all animals.

dwindling numbers = (to dwindle = to steadily decline in quantity)

States seem to have dwindling funds to pay for animal sanctuaries, although they are still able to pay for government officials and their perks.

extinction = the final death of all animals in a species

Dinosaur extinction may have been caused by a meteor or volcano, but scientists seem unsure about this.

famine = a situation where there is a lack of food in an area for a long time

Many singers help make charity songs to raise funds for famine relief.

drought = similar to famine, but a lack of water

Drought in central Africa can continue for many years, apparently.

irrigation = supplying water to land for agriculture

If we want quick solutions to famine, better irrigation and farming methods would probably be the first step.

catastrophe = a great disaster affecting many people

The continuing destruction of the rain forests is a catastrophe for the global biosphere.

exacerbated (= to exacerbate = to make an existing problem worse, accidentally or deliberately)

Famine in Africa has been exacerbated by civil war and political instability.
