

## TECHNOLOGY AND SUSTAINABILITY - WORLD ENVIRONMENTAL PROBLEMS

### VOCABULARY

Acid rain = rain which is polluted by chemicals. **Lluvia ácida**

Deforestation = rain forests and wooded areas being cut down. **Deforestación**

Loss of biodiversity = species becoming extinct. **Pérdida de biodiversidad.**

Ozone layer depletion = the ozone layer is being destroyed and becoming thinner. **Agujero capa de ozono.**

Land degradation = soil and land pollution as well as desertification. **Degradación de la tierra.**

Resource depletion = lack of natural resources worldwide. **Agotamiento de los recursos.**

Climate change = negative changes to the world weather patterns. **Cambio climático.**

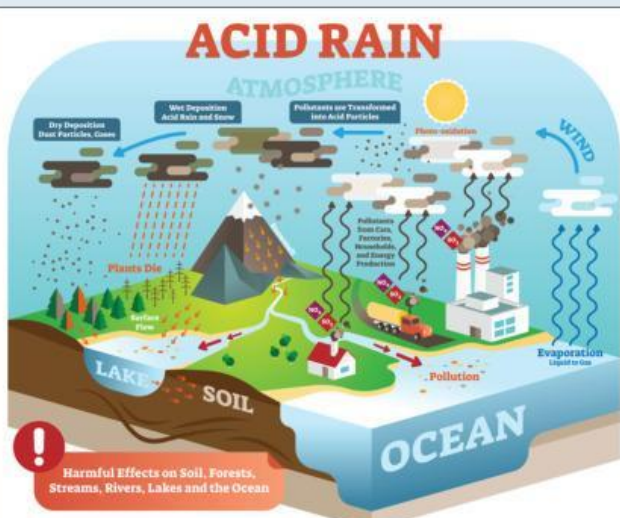
Air pollution = air that contains pollutants. **Contaminación atmosférica.**

Marine pollution = the pollution of our oceans and seas. **Contaminación marina.**

Over population = the increasing population of the world. **Sobrepoblación.**

*Fill in the gaps using the following words.*

Science and technology - Greenhouse gases – lungs - food security - 8 billion – abundant - yields - waste disposal – longer life span – power plants - sun's - aquatic weather patterns – absorb - productive potential – break down – crops – soil erosion - loss of fertility - creatures - buildings- draining world sources – surface life – low lying – crime rates – hazardous - farm chemicals – deposit – 70% - humans – premature – fossil fuels – 30% - deforestation – two fifths – exacerbated – ecosystem (x2) – natural sustainability - biodiversity – habitat – chemicals – seep

ACID RAIN – LLUVIA ÁCIDA	
<p>Rain that contains large amounts of (1) .....This can cause serious health problems as particles of pollution can enter people's (2) .....</p> <p>Acid rain can (3)..... into the ground causing soil pollution.</p> <p>As rain falls into lakes and river this can cause <b>water pollution</b>.</p> <p>Acid rain can also be responsible for damaging (4).....</p>	 <p>The diagram illustrates the acid rain cycle. In the <b>ATMOSPHERE</b>, <b>WIND</b> carries <b>Pollutants (Sulfur Dioxide, Nitrogen Dioxide, and Carbon Monoxide)</b> from <b>Factories and Power Plants</b>. These pollutants are transformed into <b>Acidic Particles</b>. These particles can be removed from the air through <b>Wet Deposition (Rain and Snow)</b> or <b>Dry Deposition (Dust Particles, Gases)</b>. The diagram shows <b>Plants Die</b> due to acid rain falling on them. It also shows <b>Evaporation (Liquid to Gas)</b> from the <b>OCEAN</b> and <b>SOIL</b>. A red box at the bottom states: <b>Harmful Effects on Soil, Forests, Streams, Rivers, Lakes and the Ocean</b>.</p>

### DEFORESTATION

**Deforestation is the destruction of forests and the cutting down of trees on a large scale.**

As forests are cut down, it affects the atmosphere and (5)..... as trees play a large part in the water cycle. Another problem is the loss of (6)..... Some species of plants and animals have already been lost while others remain endangered. This is due to the loss of their (7).....



This process affects climate change. Trees (8).....

CO<sub>2</sub> and give off oxygen. By destroying forests more CO<sub>2</sub> remains in the atmosphere affecting the climate.

In the area where the trees have been removed, (9)..... occurs as the earth is exposed to the sun's heat. This evaporates much needed nutrients contained in the soil and is very difficult to reverse.

### LOSS OF BIODIVERSITY

Each species, no matter how small, has a role to play in the (10).....

"A larger number of plant species means a greater variety of (11).....

Greater species diversity ensures (12) ..... for all life forms, and healthy ecosystems can better withstand and recover from a variety of disasters.



The loss of biodiversity can affect our (13)....., access to clean water and also the range of raw materials.

### OZONE LAYER DEPLETION

The ozone provides essential protection from the (14)..... ultraviolet radiation.

Certain industrial compounds (15)..... the ozone layer.

This reduces the ability of the ozone to protect (16)..... from UV radiation.

This is a global issue as the compounds affecting the ozone come from other parts of the world to where the problem lies.





## TECHNOLOGY AND SUSTAINABILITY - WORLD ENVIRONMENTAL PROBLEMS

### LAND DEGRADATION

This relates to changes in the land which reduces its (17).....

Factors that have contributed to land degradation include soil erosion, (18).

....., desertification and loss of vegetation cover.

Many of these factors are (19)..... by human activities.

With a growing world population, land degradation can have serious effects on our ability to feed everyone due to reduced (20)..... in major food crops.



### RESOURCE DEPLETION

Humans are using (21)..... more resources than the Earth can replenish each year.

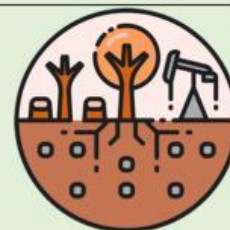
This leads to pollution, land degradation, soil erosion and (22).....

This problem is worsening as populations and consumption keep growing.

(23)..... are unable to keep up with the rate of resource depletion.

Some scientists believe that by 2030 we will need two planets to provide our wants.

The US and China account for more than (24)..... of the planet's ecological footprint, with 21% each.



### CLIMATE CHANGE

The build up of (25)..... into the atmosphere have led to changes in the world's climates.

The cause of this can be found in carbon emissions and the combustion of

(26).....

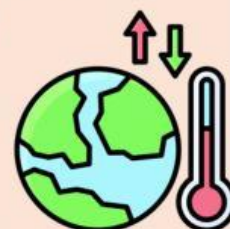
Climate change can be felt in the rise in temperatures and the changes of (27)

..... on a global scale.

As a result, droughts, floods, wildfires and storms are becoming more frequent.

With the increase in temperatures comes the rise in sea levels which threaten (28)..... lands.

The future consequences are potentially devastating.



### AIR POLLUTION

Combustion, mining, factories, (29)....., farming, fires and automobiles all pose threats as potential air pollutants.

This endangers our health and ecosystem.

Smog, mainly from factory smoke, is (30)..... and can produce chronic

problems such as lung disease, asthma and heart disease, resulting in an estimated 200,000

(31)..... deaths per year.



## TECHNOLOGY AND SUSTAINABILITY - WORLD ENVIRONMENTAL PROBLEMS

### MARINE POLLUTION

The main contributor of ocean pollution begins on land, namely non-point pollution from septic tanks, sewage sludge, car oil leaks, boats and (32)....., which make their way to the sea.

Other reasons for the pollution is that some boats and even countries

(33)..... their waste directly into the ocean.

Water covers approximately (34)..... of our globe, it would seem that it is an

(35)..... resource but it is not.

Humans are destroying the homes of millions of (36)....., some of which we know little to nothing about.

Ocean pollution is not only devastating for the sea creatures, it can also be devastating for (37)..... as well.



### WORLD POPULATION

The world population is currently 7 billion and is estimated to be (38).....by 2024.

This is due to improved living standards and medicine which results in a (39)..... and lower infant mortality.

Over population will result in (40)..... and an increase in carbon emissions worsening climate change.

In urban areas it may result in lower standards of living and increasing (41).....

Feeding such a large population will also create challenges.

Safe, environmentally friendly (42). .... will also become a problem as the world population grows which can result in growing pollution.



Information and images were collected from various sources including:

<https://ieltsliz.com/world-environmental-problems-vocabulary/>

<https://www.flaticon.es/>

<https://ixwater.com/acid-rain-is-still-a-thing>