

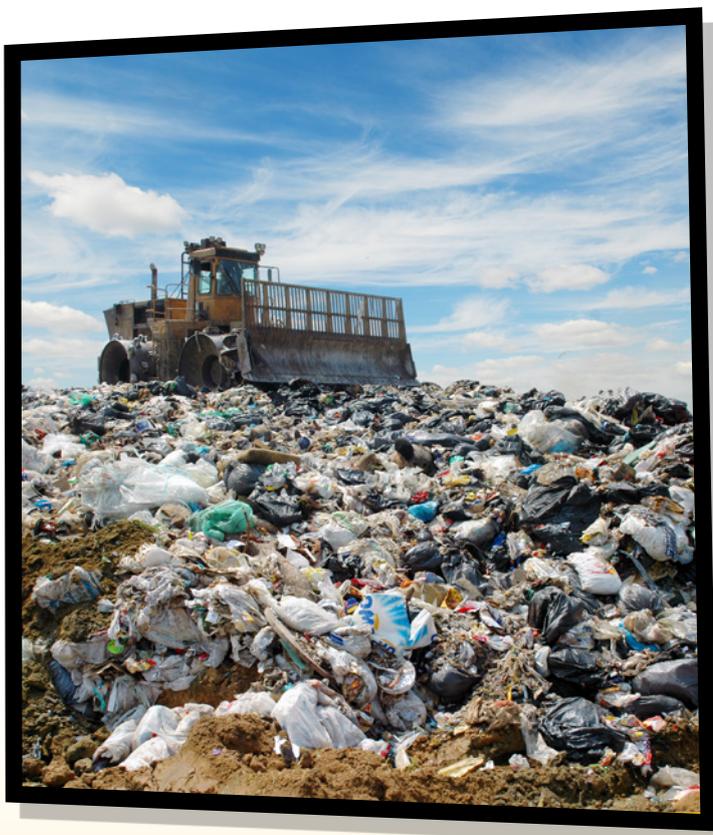
## ENVIRONMENT ISSUES: Types of Pollution

### What is waste?

Waste or rubbish is what people have thrown away when it's worn out, not needed or left over. Nearly everything we do creates waste, and the problem is how to get rid of the waste so it doesn't 'pollute'.

### What is pollution?

Pollution is something that damages or contaminates the environment. It can be in the form of land, air or water pollution and is especially attributed to man-made waste.



### Land pollution

Pollution can be found in soil, and most of it is due directly to waste. When rubbish is put into a landfill and then buried, the rotting waste decomposes and this process creates harmful gases (such as methane and carbon dioxide) that creep into the soil beneath.

Farmers use artificial fertilisers and chemicals to kill pests that eat their crops. This is a form of pollution, and use of these chemicals can also lead to 'soil erosion' - where the soil is eaten away and can eventually disappear (like in a desert).

Litter is also regarded as polluting waste. When it's left on the streets or in the countryside, it is not only thoughtless and unsightly, but can also cause problems for wildlife.

### Air pollution

Air pollution can be caused by things like car or aeroplane exhaust fumes - a combination of carbon monoxide, carbon dioxide, nitrogen oxide and other harmful substances.

Power stations burn fossil fuels to create electricity. This releases harmful chemicals into the air and when they react with water (in clouds) they cause the production of sulphuric and nitric acids - resulting in 'acid rain'. Wherever acid rain falls it can have a negative effect on the trees, plants, soil and wildlife it touches.

The biggest threat to our air and atmosphere, however, is the production of carbon dioxide and chlorofluorocarbons (CFCs), which come from use of aerosols, manufacture of refrigerators and polystyrene packaging.

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## ENVIRONMENT ISSUES: Types of Pollution cont'd

### Water pollution

Most of the pollution in water comes from chemicals. As well as the effects of acid rain, pesticides and fertilisers used in fields are washed off the crops into streams and rivers. Often factories are built next to rivers and can sometimes discharge chemical waste directly into the water, affecting aquatic life.

Unfortunately all too often water creates an area where thoughtless 'criminals' dump their rubbish. They are criminals as they pollute our water by illegally dumping bedsteads, fridges, wheels, supermarket trolleys, old petrol cans, anything they can't be bothered to dispose of properly. Most of these remain unseen under the water, polluting and killing wildlife. It's only in droughts or riverways, canals or streams where the extent of damage can be seen.

In the sea, the main pollutants are sewage (often untreated), oil tanker spills and radioactive waste (where containers that have been disposed of deep beneath the sea have started to leak). All of these pollutants can wipe out wildlife in that area of the ocean or sea and can have farther reaching effects too. Please see fact sheet 3.2

**Environment Issues - Protection of Ecosystems** for examples.



### How does pollution impact on people?

Pollution can have several impacts on people. Air pollution and 'smog' can be harmful for those with asthma, as this can make it difficult to breathe. Similarly, air pollution can increase asthma especially in those most vulnerable (e.g. the young and elderly) and can cause disease in lungs.

### What can be done about pollution?

- Reducing your waste, reusing or repairing items and recycling can avoid waste being sent to a landfill.
- Ensure all waste is disposed of properly and report any illegal dumping you see.
- Using renewable sources of energy rather than burning fossil fuels like oil can reduce CO<sub>2</sub> emissions, and also using energy efficiently.
- Lakes and rivers affected by acid rain can be neutralised by a process called 'liming', which is when a powdered limestone substance is added to the water.



### Did you know?

The UK produces 530 million tonnes of waste every year!