

Pollution

- Pollution occurs when harmful substances called **pollutants** are released into the environment, such as **land**, **air** and **water**.



Land pollution

- **Land pollution** occurs when we do not dispose of wastes and garbage properly.
- This is caused by littering or using too many materials or products that cannot be broken down easily by decomposers.
- Such waste take up space and can pile up and catch fire.
- The waste also gives off a bad smell when it breaks down.



Think about it...



Products made of materials that can be broken down easily creates a more positive impact on the environment. Why?

Water pollution

- Bacteria and other harmful substances multiply very quickly in waste and can **cause diseases**.
- When these organisms get into water bodies, they **contaminate** the water that is used for drinking or Man's other activities.
- Pesticides or fertilisers used by farmers also contaminate the water when they are washed into rivers and lakes.
- They can **kill the organisms** living in the polluted water.



Water pollution

- Chemical waste that are discharged by factories into water bodies also **pollutes the water**.
- When the chemicals get into the bodies of the organisms living in the water, the organisms can be **poisoned** or even **die**.



Think about it...



Accidents between oil tankers can cause oil spills in the sea. What impact on the environment do these accidents cause?

Air pollution

- We have learnt that the burning of trees produces smoke and causes haze and increased carbon dioxide levels.
- Burning of fuels such as petrol, coal and wood also produces smoke.
- Vehicles contribute to air pollution when they burn fuels in order to work.
- The quality of air in places where there are more vehicles on the road is poorer.



Air pollution

- Factories also produce **smoke** and **harmful gases** when they burn fuels.
- When such factories do not install filters in their chimneys, harmful gases are released into the air.
- These gases can **dissolve in rainwater**.
- When such water evaporates and then condenses to form clouds, it falls as **acid rain**.



Air pollution

Acid rain

- It can **damage** buildings and structures.
- It can **contaminate** the water in the rivers, lakes and seas.
- It can **kill** organisms living on land and in the water.



Air pollution

CFCs

- The Earth is surrounded by a layer of ozone that protects us from most of the harmful ultraviolet (UV) rays from the Sun.
- Chemical substances such as CFCs (chlorofluorocarbons) used to be found in spray cans and refrigerators.
- These substances were found to **destroy the ozone layer** and cause it to become thinner.
- This results in more UV rays reaching the Earth more easily.
- This can kill plants and also cause **sunburns, eye problems** and **skin cancer**.