

# **Chapter Twelve**

## **Environmental Pollution, Weathering And Diseases:**

- Environmental pollution occurs when poisonous substances are released into the environment in large amount. - Items which cause the pollution of the environment are called pollutants.

### **Types of pollution:**

- The types of pollution we have are:
  - (1) Air pollution.
  - (2) Water pollution.
  - (3) Land pollution.
  - (4) Noise pollution.

### **Air pollution:**

- This occurs when items such as gases, smoke or dust are released into the air. --- Air pollutants refer to those items, which when present in the air cause it to become polluted. - Some of the air pollutants are sulphur dioxide, mercury, nitrogen dioxide and carbon monoxide.

### **Effects of air pollution:**

- Polluted air can make us become sick.
- It can affect the weather.
- It can affect the growth of plants.

### **Ways of controlling air pollution:**

- This can be done by:-
  - (a) Releasing or putting waste gases high into the atmosphere.
  - (b) Using machines which do not cause air pollution:

### **Water pollution:**

- This is caused when we put large amount of waste materials into water bodies. \_-- Water pollutants are those items, which when present in a water body cause it to become polluted.
- Water pollutants include the following:

- (a) Waste from industries and our homes.
- (b) Sewage i.e. urine and the faeces of man.
- (c) Hot water from industries.

### **The effects of water pollution:**

water can cause diseases.

cause the death of the creatures or living things, which live in the water.

- Polluted
- It can

### **Ways of controlling water pollution:**

- (i) We must not put waste from our homes and industries into water bodies.
- (ii) Hot water from industries must first be cooled, before it is dumped or put into water bodies.

### **Land pollution:**

- This occurs when items which do not easily rot, are left on the land.

also caused when we add harmful chemicals to the soil.

Items which can cause land pollution are called land pollutants.

- It is
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### **Effects of land pollution:**

- Some land pollutants enter the plant, and this can affect its growth or kill it.

Refuse when left on the land, can serve as the home of germs and dangerous animals such as snakes.

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### **Ways of controlling land pollution:**

By not adding too much chemicals such as fertilizer to the soil.

By recycling waste such as metals or plastic, i.e. to melt these metals or plastic and use them to make other items.

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### **Noise pollution:**

This is caused by loud noise from places such as churches and factories as well as items such as radio sets and vehicles.

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### **Effects of noise pollution:**

- It causes people to feel uncomfortable.

- It can damage the ear.

### **Control of noise pollution:**

Items such as the sound system and the radio, must not be opened loudly.

- Factories which create a lot of noise must not be built in areas where people live.

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## **Weathering:**

- This refers to the breaking down of rocks into smaller particles.

There are three types of weathering and these are:

- (a) Physical weathering.
- (b) Chemical weathering.
- (c) Biological weathering.

## **Physical weathering:**

- This

is the type of weathering which occurs as a result of changes in temperature.

- On hot days when the sun shines on the rocks, they become heated and expand.

- They contract when the weather becomes cold.

- This

expansion and contraction causes cracks within the rocks, causing them to break down into pieces.

## **Chemical weathering:**

- This is caused by rain water which is a form of acid, and referred to as carbonic acid.

- When rain water or carbonic acid falls on the rocks, it dissolves or destroys the cementing material which binds the rocks together.

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This causes the rocks to break down.

## **Biological weathering:**

- This is caused by the roots of plants which grow deep into the rocks.

- They cause cracks in the rocks which finally lead to their breakdown.

## **Diseases:**

- Diseases can be divided into different groups and these are:

- (i) Infectious diseases.
- (ii) Non infectious diseases.
- (iii) Air borne diseases.
- (iv) Water borne diseases.

- Pathogen is the name given to a germ which causes diseases.

- Examples are bacteria, virus and fungi.