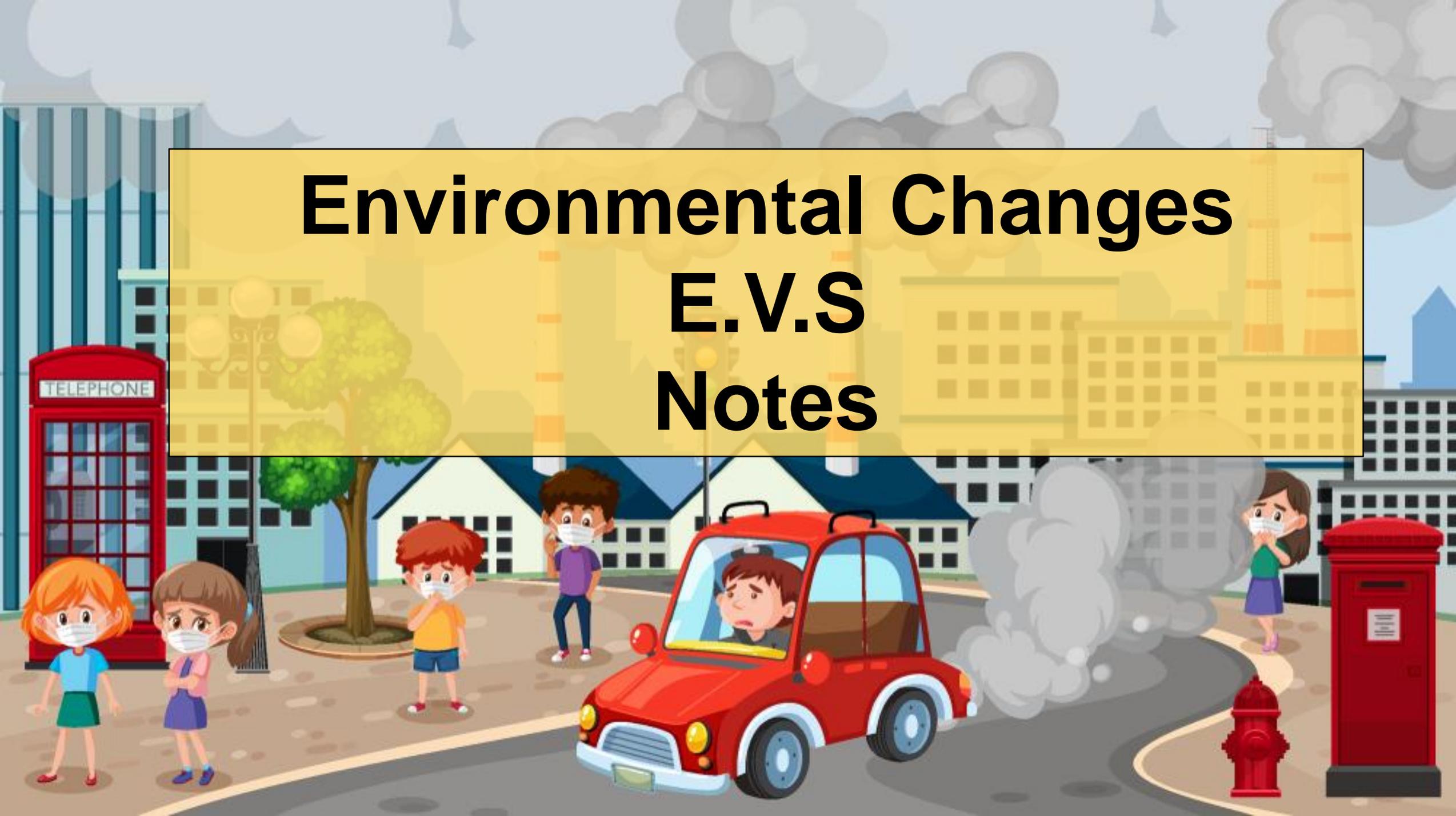


Environmental Changes

E.V.S

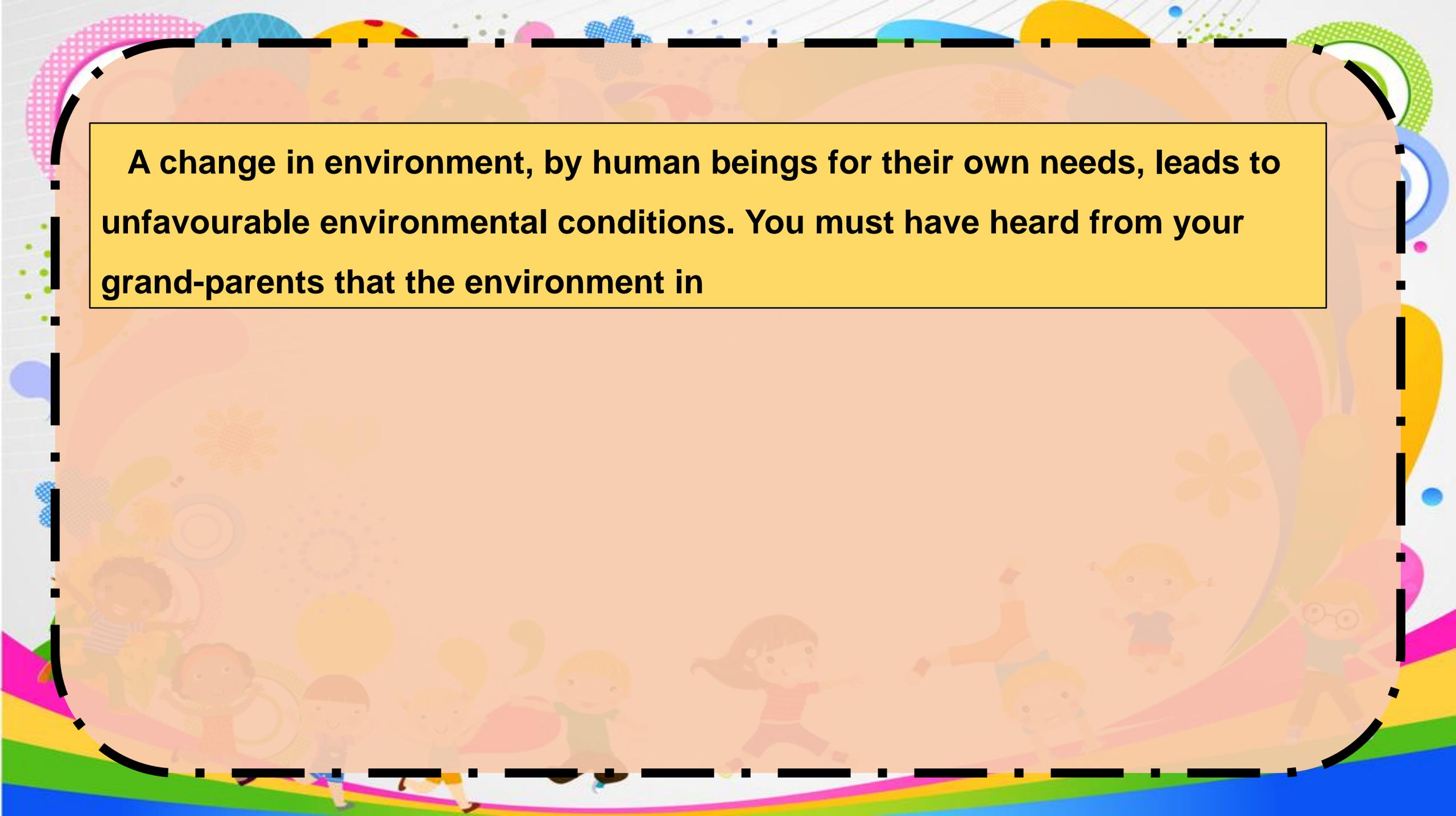
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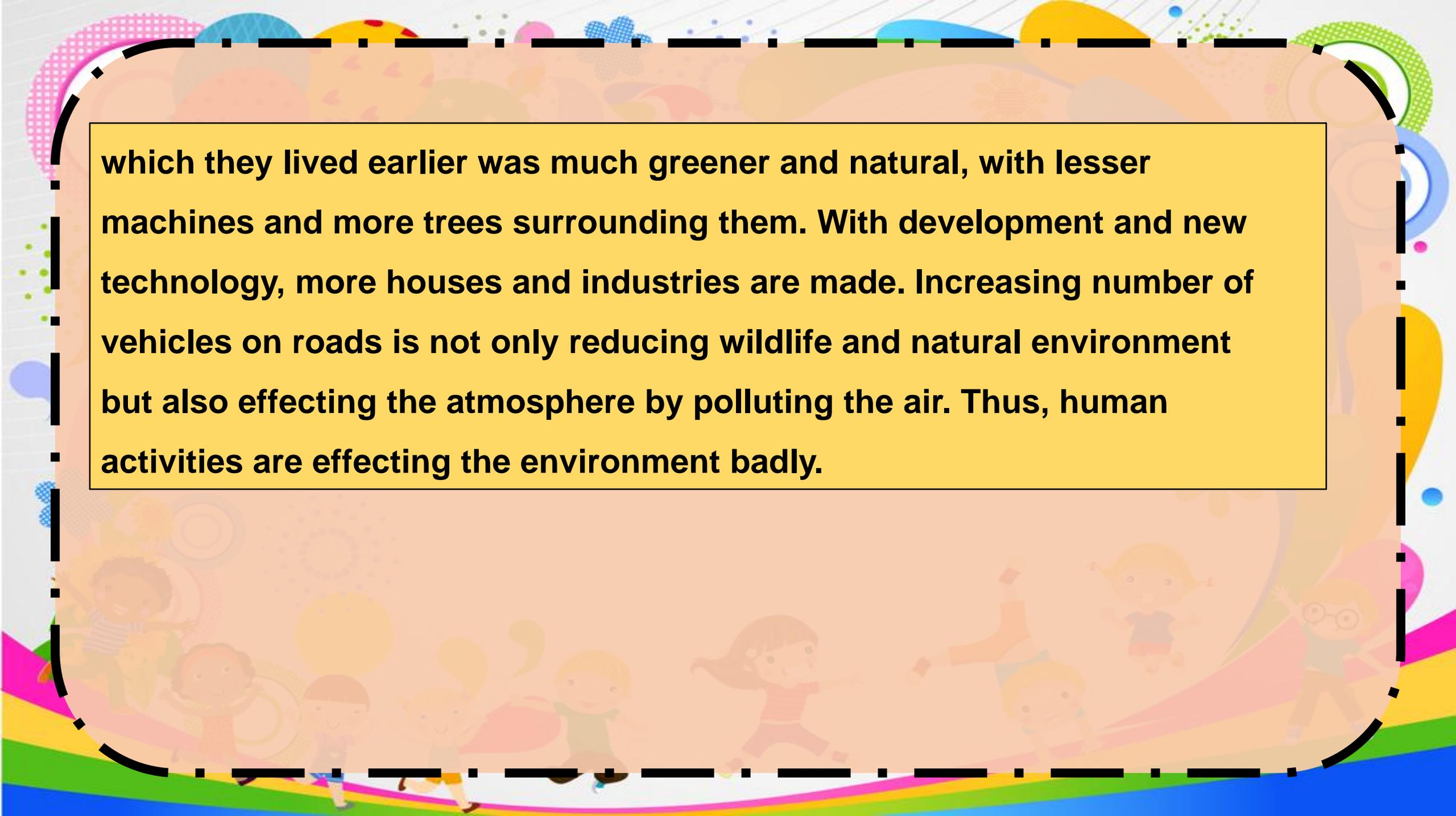


INTRODUCTION

Environment simply means, anything that surrounds us. It consists of many living as well as non-living things.

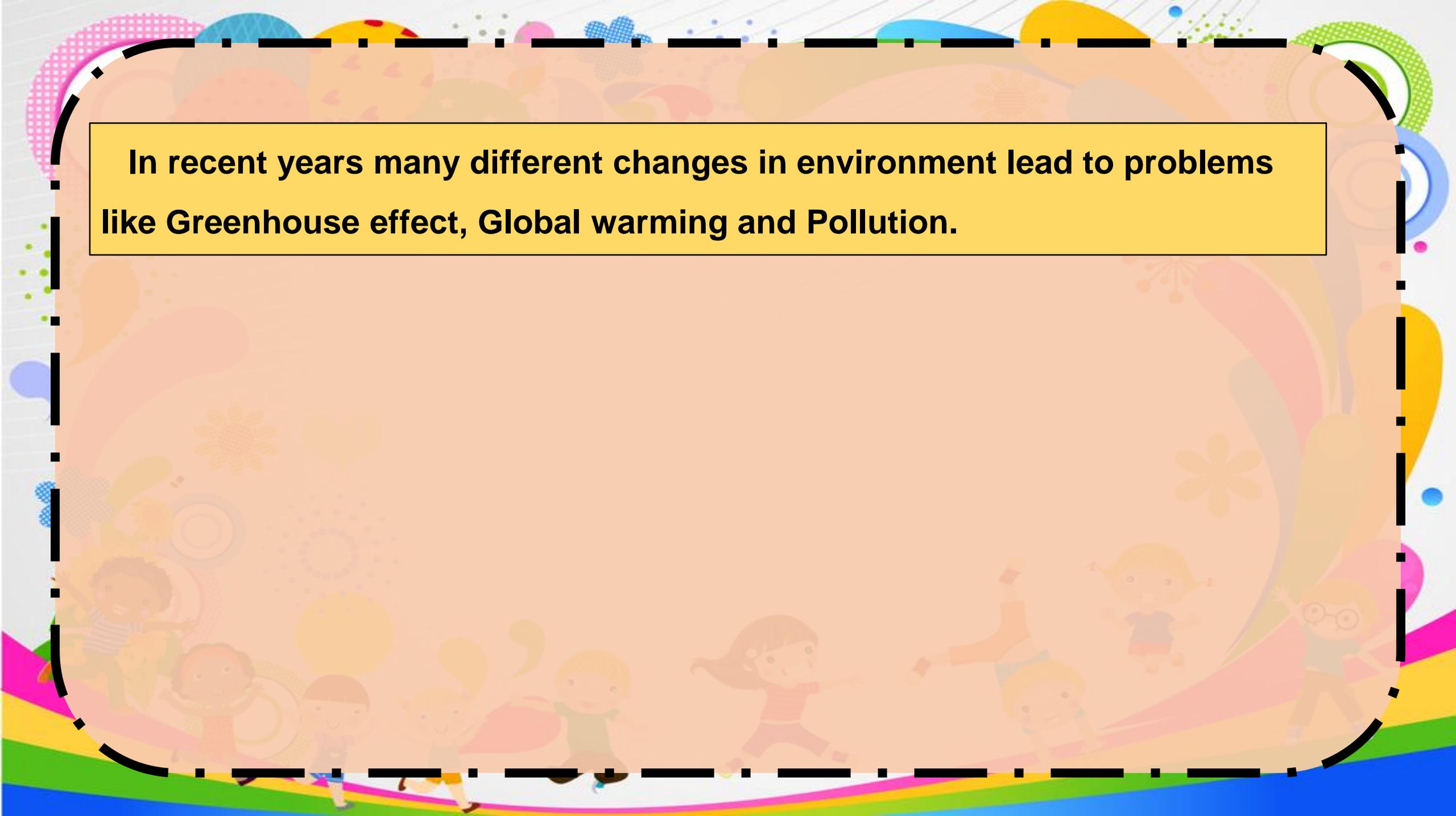
A change in environment, by human beings for their own needs, leads to unfavourable environmental conditions. You must have heard from your grand-parents that the environment in





which they lived earlier was much greener and natural, with lesser machines and more trees surrounding them. With development and new technology, more houses and industries are made. Increasing number of vehicles on roads is not only reducing wildlife and natural environment but also effecting the atmosphere by polluting the air. Thus, human activities are effecting the environment badly.



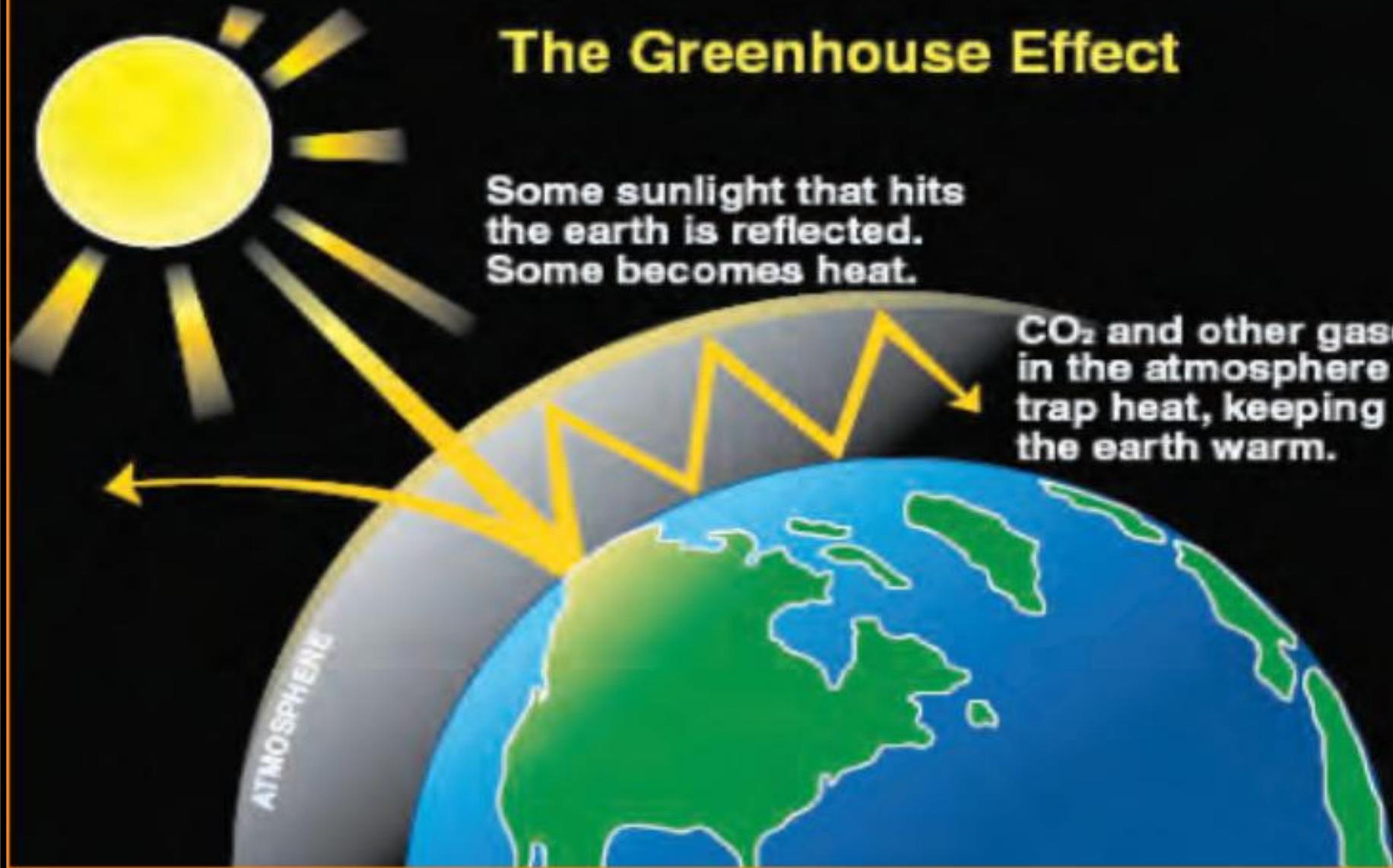


In recent years many different changes in environment lead to problems like Greenhouse effect, Global warming and Pollution.

The Greenhouse Effect

Some sunlight that hits the earth is reflected. Some becomes heat.

CO₂ and other gases in the atmosphere trap heat, keeping the earth warm.







GREENHOUSE EFFECT

Increase in the temperature of earth is known as the Greenhouse Effect. Earth's atmosphere is made of many different gases. Some gases like carbon dioxide, methane, nitrous oxide and water vapour, trap the energy and radiation from the sun and don't let the energy escape.

Thereby increasing the temperature of the earth. These gases are called greenhouse gases and this effect is called the greenhouse effect.

Greenhouse Gases

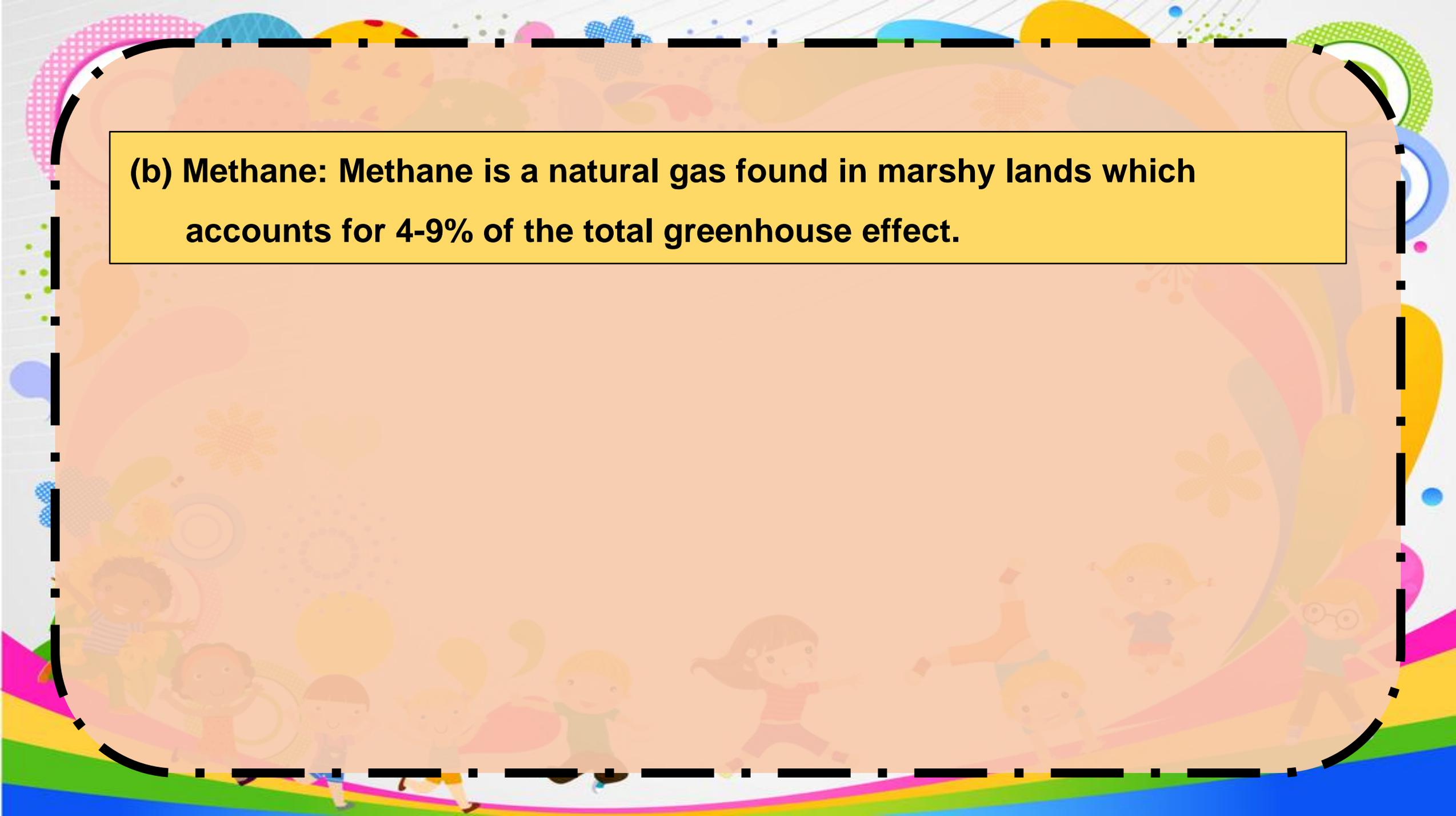
(a) Carbon dioxide: Carbon dioxide content is rapidly increasing in the earth's atmosphere. This is giving rise to greenhouse effect. The burning of fossil fuels and deforestation are contributing to the carbon emission. Carbon dioxide has increased in the past century causing a gradual rise in the earth's temperature. If suitable measures are not taken immediately this could lead to another problems like flood, drought etc.



Burning of fossil fuels

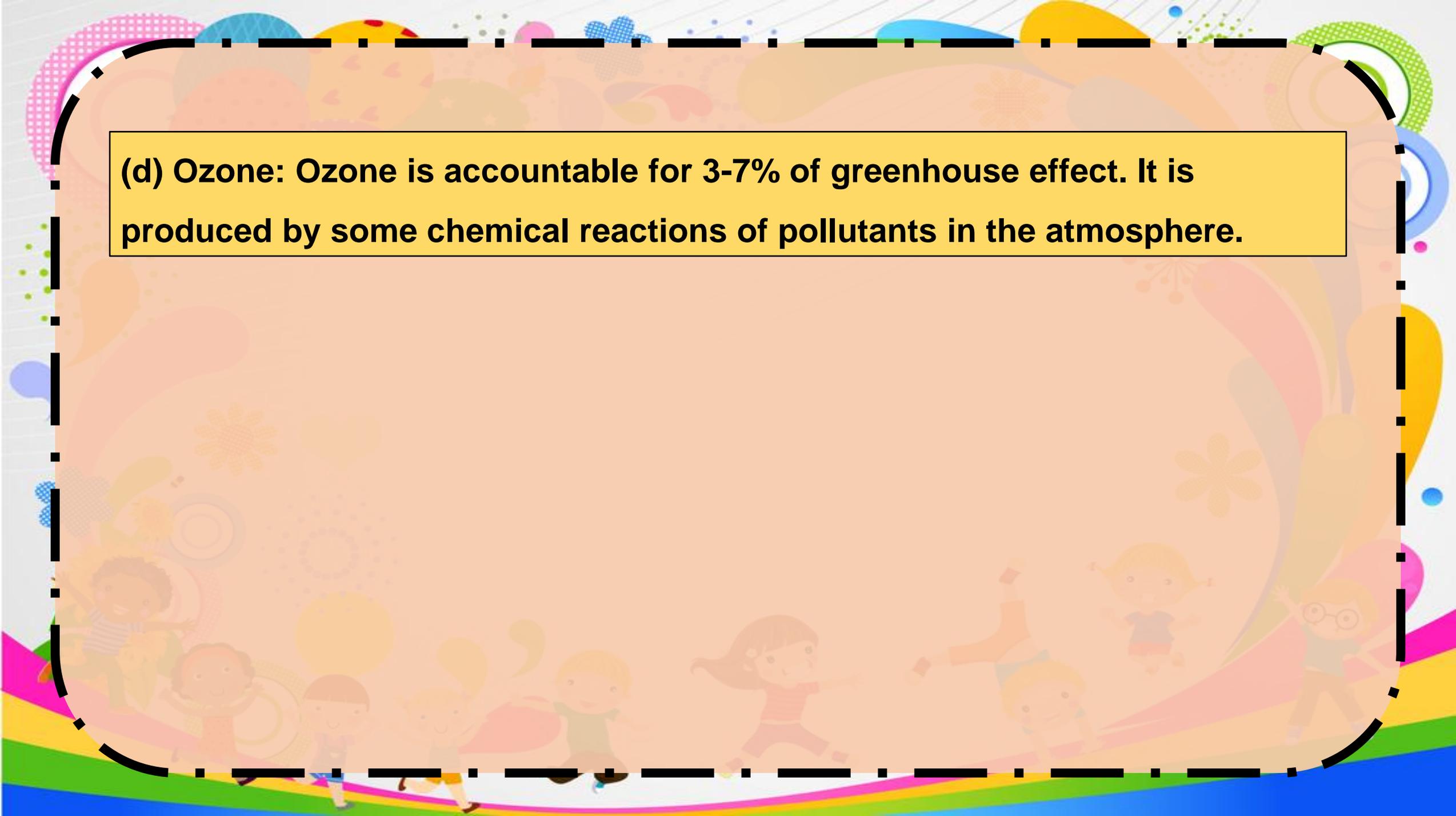


Deforestation



(b) Methane: Methane is a natural gas found in marshy lands which accounts for 4-9% of the total greenhouse effect.

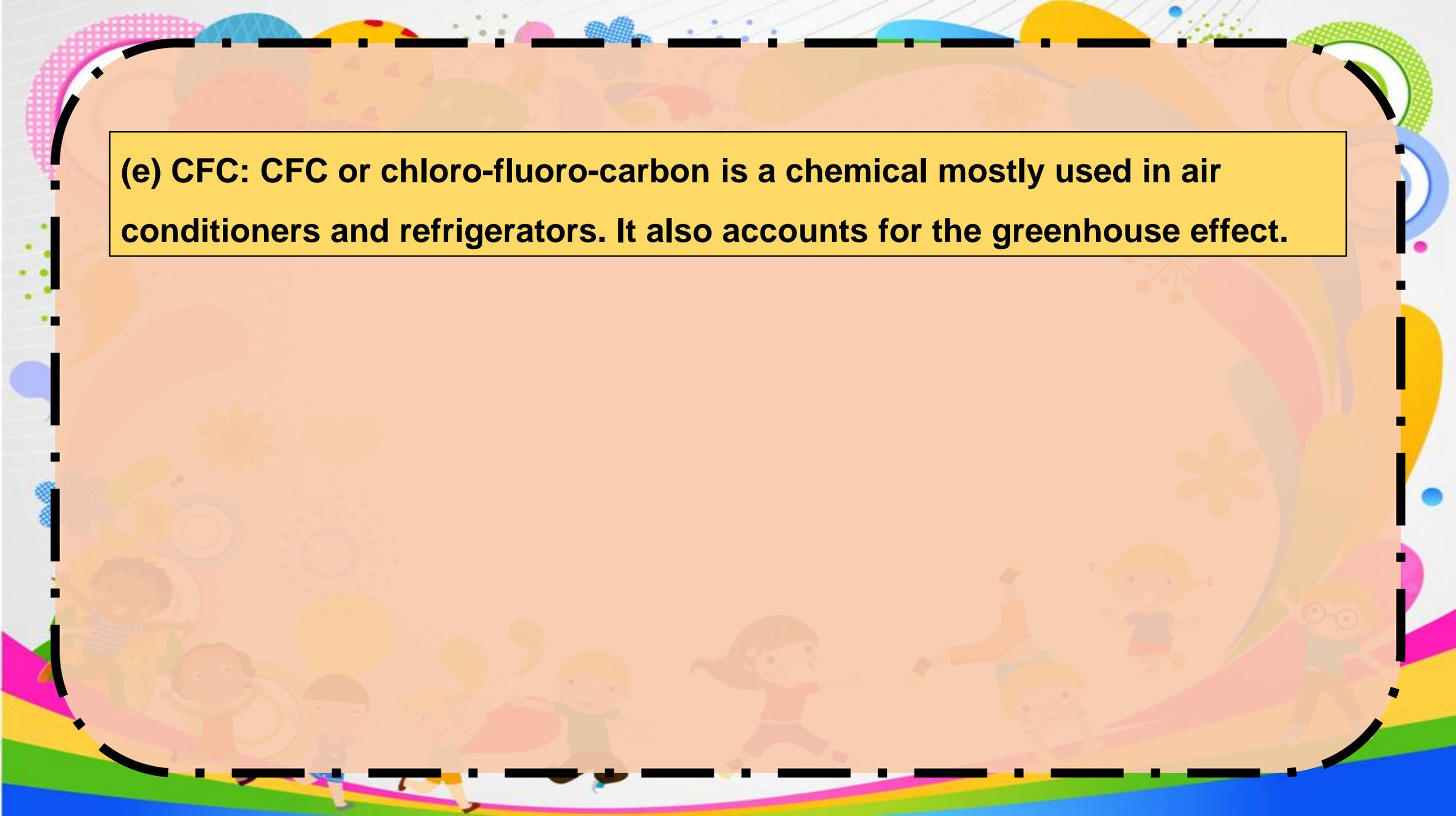
(c) Water vapour: Water vapour are present in the atmosphere naturally and accounts for 36-70% of the greenhouse effect.



(d) Ozone: Ozone is accountable for 3-7% of greenhouse effect. It is produced by some chemical reactions of pollutants in the atmosphere.



Water vapour



(e) CFC: CFC or chloro-fluoro-carbon is a chemical mostly used in air conditioners and refrigerators. It also accounts for the greenhouse effect.



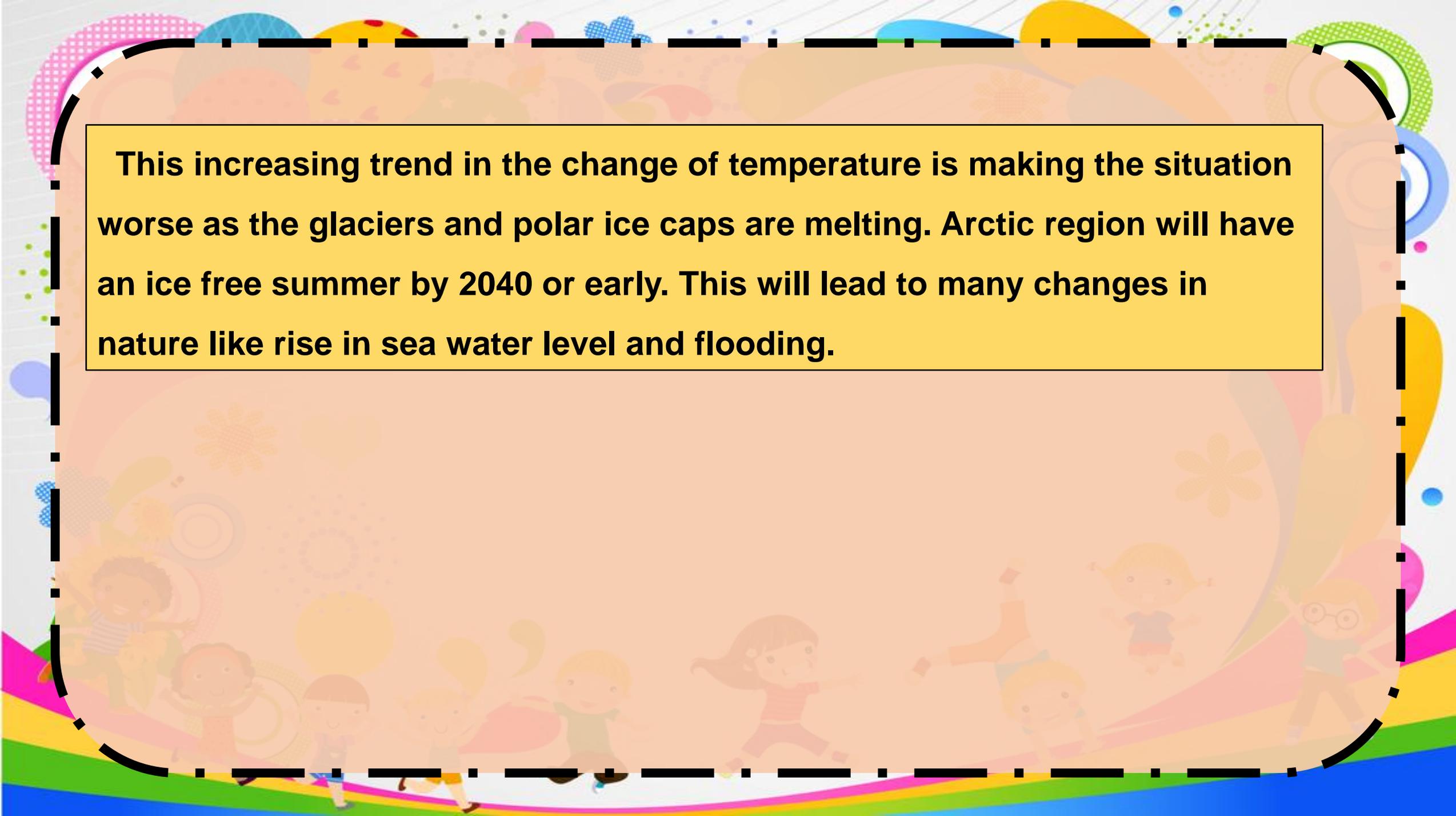
Air conditioners and refrigerators

GLOBAL WARMING

Global Warming is the after-effect of greenhouse effect. The radiation trapped by the greenhouse gases increase heat and temperature on the earth's surface. This is called global warming. Changes in the temperature has been very rapid in the last few decades and still increasing.



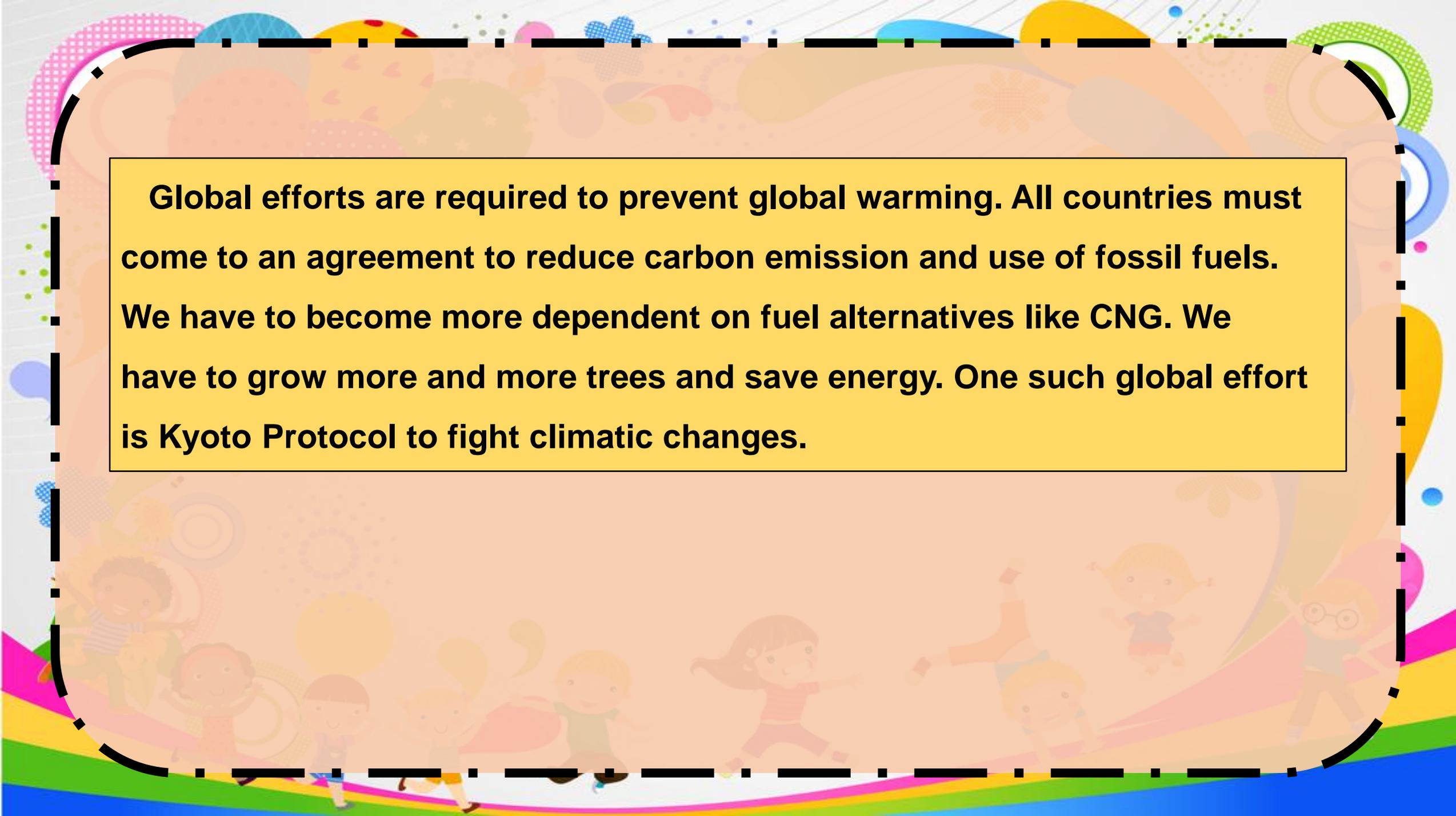
Melting of polar ice caps



This increasing trend in the change of temperature is making the situation worse as the glaciers and polar ice caps are melting. Arctic region will have an ice free summer by 2040 or early. This will lead to many changes in nature like rise in sea water level and flooding.



Flooding



Global efforts are required to prevent global warming. All countries must come to an agreement to reduce carbon emission and use of fossil fuels. We have to become more dependent on fuel alternatives like CNG. We have to grow more and more trees and save energy. One such global effort is Kyoto Protocol to fight climatic changes.



**KYOTO
PROTOCOL**
16 FEBRUARY 2005



POLLUTION

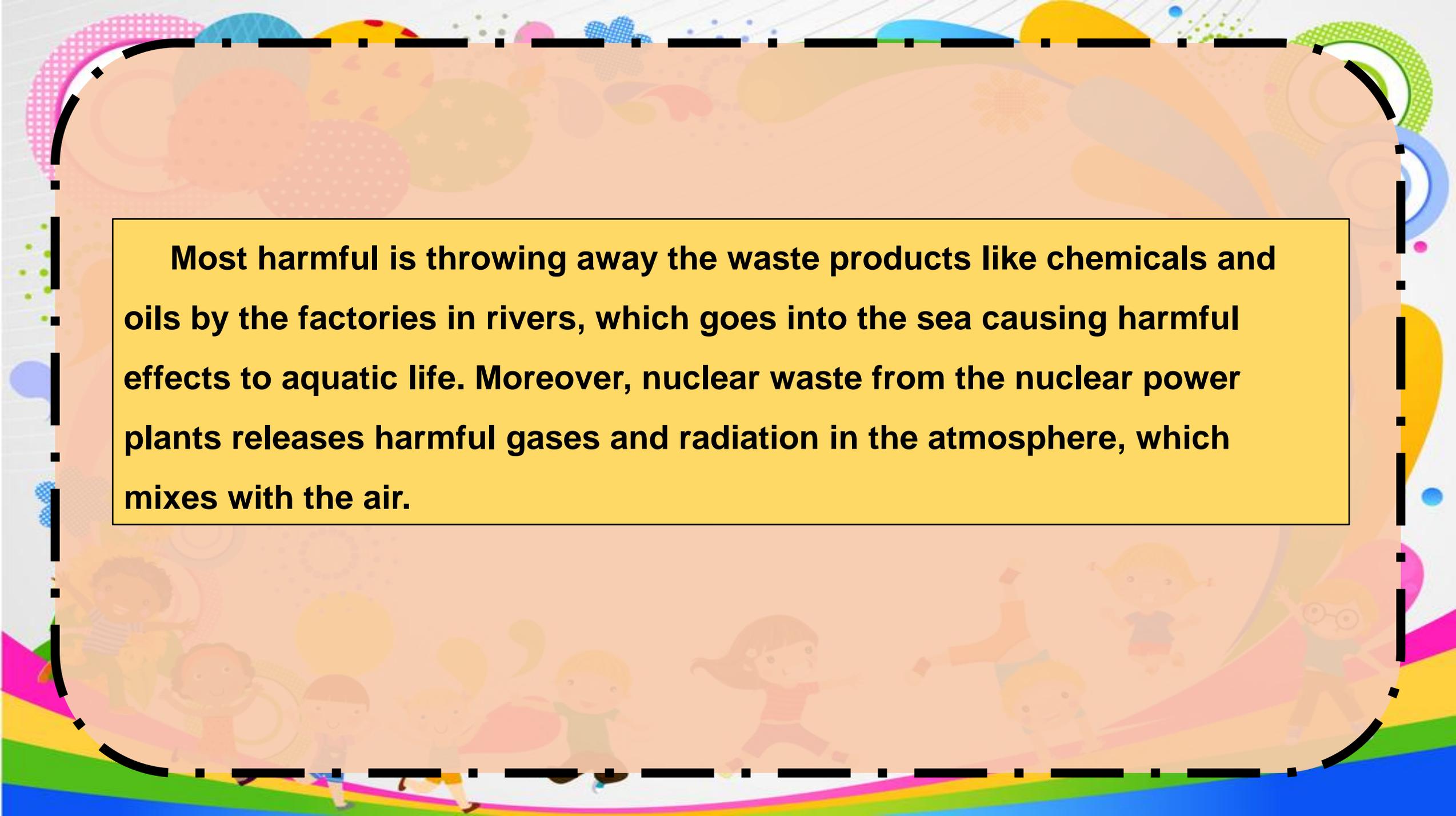
Pollution is contaminating the atmosphere, especially air, water and land with harmful or poisonous substances. Air pollution is most common in cities. Vehicles, factories and houses are polluting the air by smoke. Garbage from households and industries, is thrown in the water bodies like rivers, causing water pollution. Waste thrown in the open spoils land.



Water pollution



Land pollution

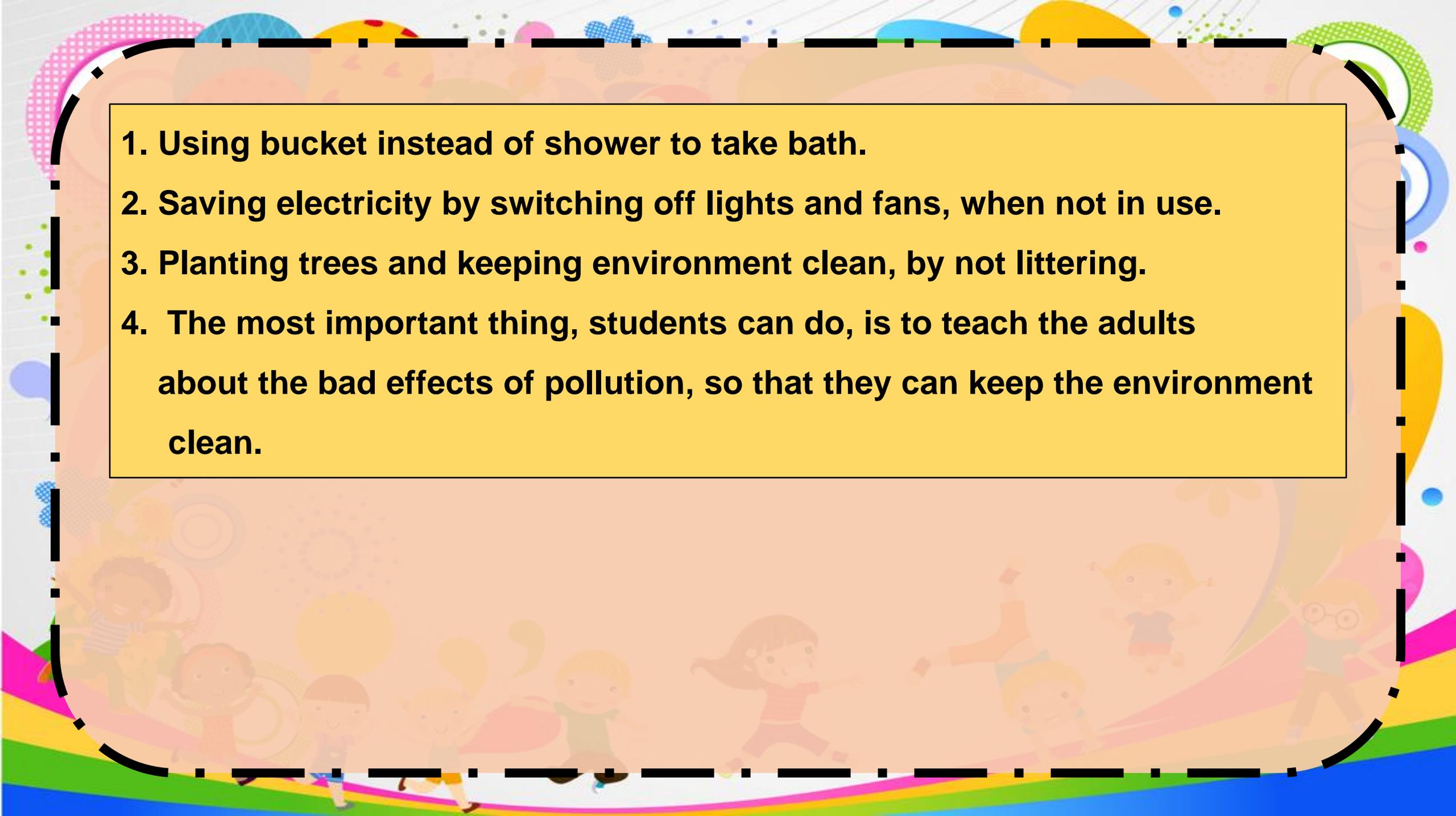


Most harmful is throwing away the waste products like chemicals and oils by the factories in rivers, which goes into the sea causing harmful effects to aquatic life. Moreover, nuclear waste from the nuclear power plants releases harmful gases and radiation in the atmosphere, which mixes with the air.

Controlling Pollution

For better environment, we should protect all its components. We need to take good care of land, air and water resources. By following some easy steps, pollution and other harmful changes in the environment can be controlled.

Students can save environment by saving resources.

- 
- 1. Using bucket instead of shower to take bath.**
 - 2. Saving electricity by switching off lights and fans, when not in use.**
 - 3. Planting trees and keeping environment clean, by not littering.**
 - 4. The most important thing, students can do, is to teach the adults about the bad effects of pollution, so that they can keep the environment clean.**



Recycling

Recycling is an easy and very effective method to reduce the collecting of waste products like plastics, metals, rubber, cloth, paper etc. in dump sites. These materials should be recycled and then used again.



Recycling metals

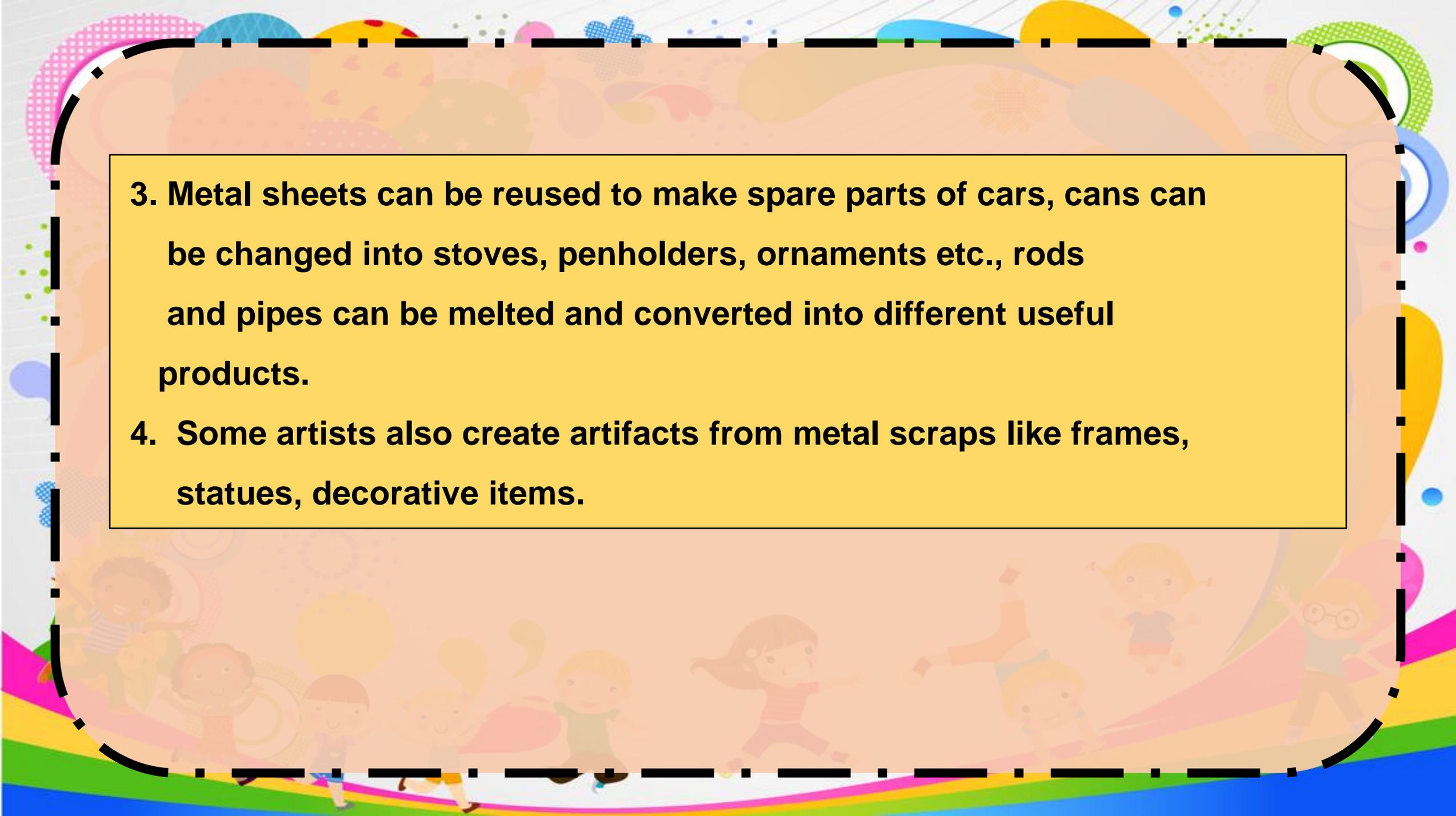


Recycling clothes

Metal

1. Metal can be reused.

2. Waste metal scrap thrown away by people and factories can be utilised by melting, reshaping and converting things like cans, bottle caps, metal sheets, pipes and rods into useful products.



3. Metal sheets can be reused to make spare parts of cars, cans can be changed into stoves, penholders, ornaments etc., rods and pipes can be melted and converted into different useful products.

4. Some artists also create artifacts from metal scraps like frames, statues, decorative items.

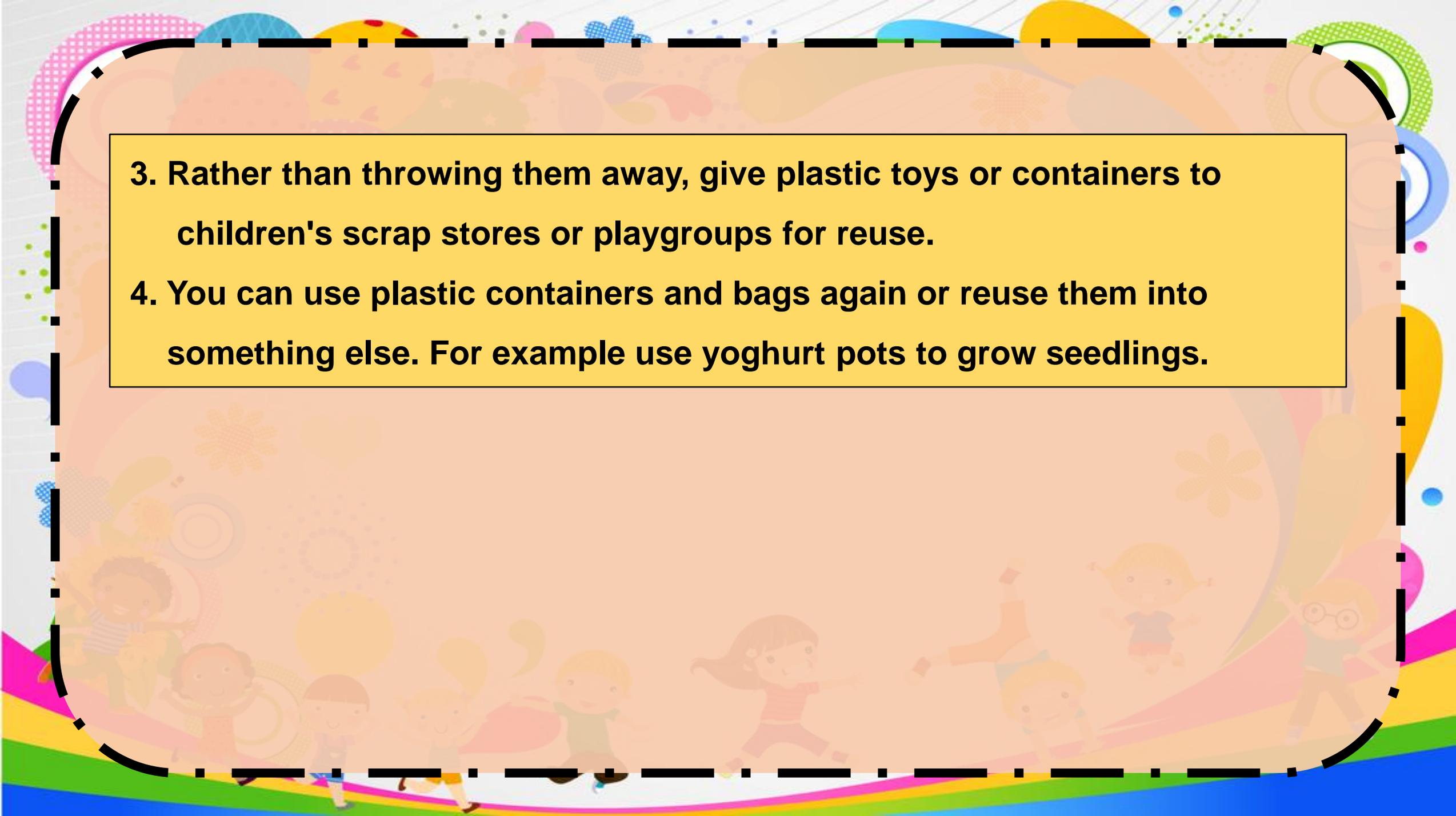


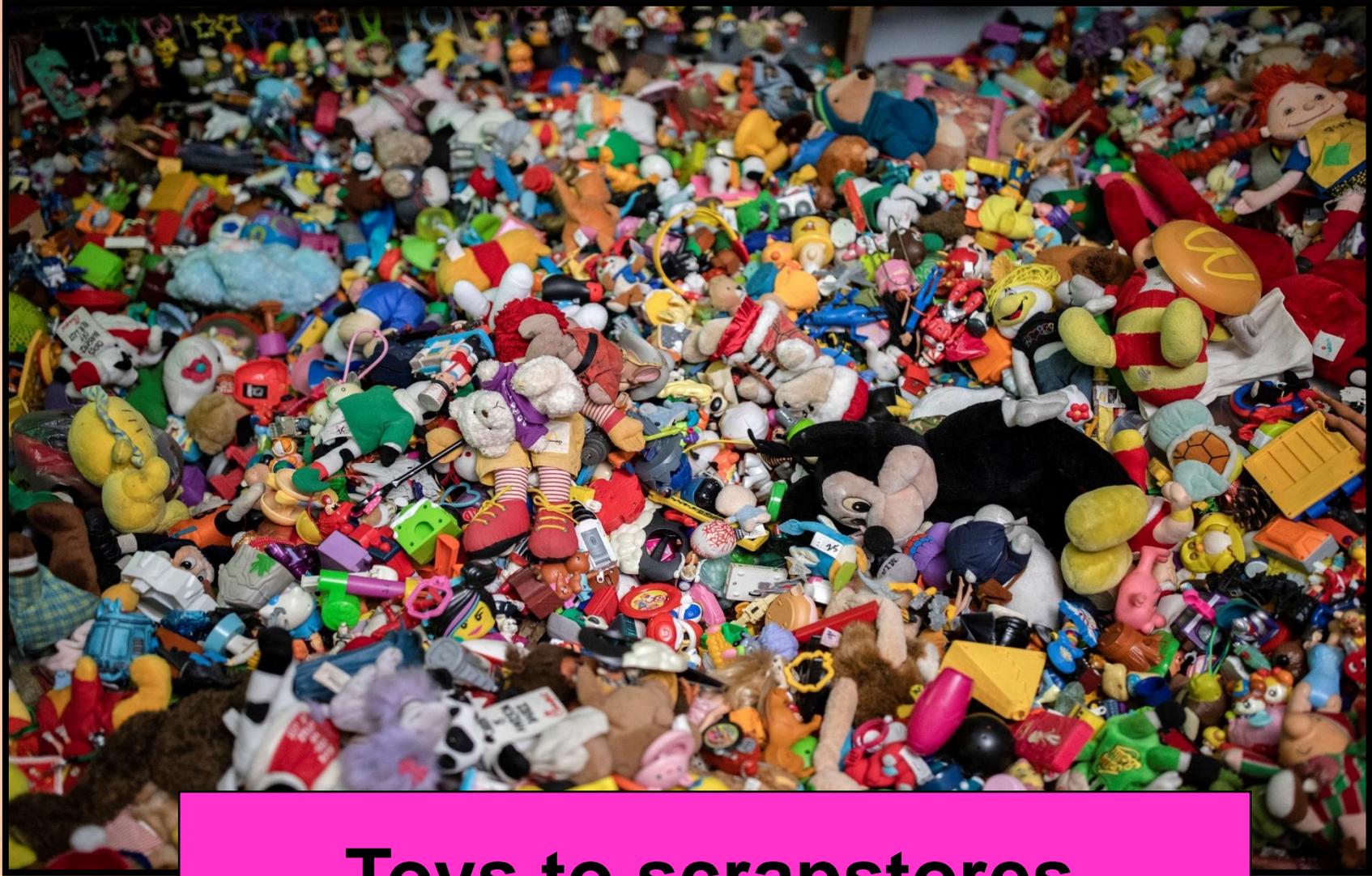
Plastic

- 1. Plastic can easily be reused especially plastic bags and food packaging plastic.**
- 2. Recycling plastic bottles, caps, toys, containers, drums is easy and you can also make money by collecting and selling these objects to the recyclers.**



Recycling of plastic bottles

- 
- 3. Rather than throwing them away, give plastic toys or containers to children's scrap stores or playgroups for reuse.**
 - 4. You can use plastic containers and bags again or reuse them into something else. For example use yoghurt pots to grow seedlings.**



Toys to scrapstores



Using yoghurt pot for seedling

Going Green

The best way to save environment is to plant more trees not only on the occasion of VANMAHOTSAV (5th June and also the first week of July) but every day. Trees help in keeping the air clean. We can save our environment by protecting wildlife and the green cover.



Students planting trees

Fact File

- **The average temperature of the earth has been increased about 0.8 degree Celsius since 1880.**
- **Ganga river, a symbol of religious and spiritual faith of India, is one of the most polluted river in the world.**

Things to Remember

- The impurities which pollute the environment are called the pollutant.
- Drinking polluted water cause many diseases.
- Breathing in polluted air has many ill-effects on our body.
- We can recycle and reuse many waste items.