

## TP - What challenges do humans face?

All over the world, people are suffering from at least one of the following challenges.



### 1. Read about the following challenges and answer the questions.

Pollution affects several aspects of our environment, and is often the result of human activities.

**Air pollution:** Until the 1880s, most air pollution came from natural processes such as volcanic eruptions and natural forest fires that **spewed** harmful gases into the atmosphere. When humans started burning coal to produce electricity, factories that burnt coal and petroleum started to contribute the most to air pollution. Today, a lot of air pollution is caused by emissions from cars, trucks, and airplanes, as well as from industries. When you see **smog** over a city it's because the gases in the emissions from vehicles and factories have reacted with sunlight and formed another chemical, **ozone**, which can be very harmful.

**Indoor air pollution:** This includes smoke from cigarettes, toxic fumes from glues and paints, and more. Indoor air pollution is harmful to animals and humans who breathe it and to indoor plants that need carbon dioxide to produce their own food.



▲ Smoking is a form of indoor air pollution.



### Did You Know...?

Ozone is toxic and can damage the lungs of humans and animals.



▲ A city covered in smog



**Water pollution:** Three quarters of our planet is covered by water. Although most of this water is not drinkable, it does provide a home for almost a million species, so it's important to protect it. In addition, about three quarters of the fresh water that is available is stored in glaciers, so the amount of fresh water actually available for drinking is relatively limited.

Much of this water is groundwater, which means it's underground in the small spaces between sediments and rocks and in underground rivers and reservoirs. Any contamination that gets into the ground can get into our drinking water supply, making it very important that we protect it from harmful chemicals.



The main pollutants that threaten water are:

- **sewage:** human waste that goes down toilets
- **pesticides:** the chemicals that are sprayed on agricultural fields and then wash off with the rain and seep into the ground and the water beneath it
- **industrial waste:** produced by factories during the manufacture of **goods** → products
- **petroleum products:** spillage from ships and boats, or from underground storage tanks
- **solid waste:** plastic garbage that floats around the oceans for years without breaking down

These pollutants are sometimes spilled directly into bodies of water, and other times reach bodies of water by **seeping** into the ground first and then travelling to bodies of water in underground streams. This type of contamination can be harmful to animals and plants that live in water, to the animals and humans who drink it, to the plants that are watered with it, and to the animals and humans who eat contaminated plants and animals.

→ going inside



**Soil pollution:** Pollution of soil is similar to pollution of water in many ways because the two are so closely connected.

The main sources of soil pollution are the same as those that threaten water: sewage, pesticides, industrial waste, petroleum products and solid waste. This type of pollution can either remain in place or travel to other areas via groundwater. It can be harmful to plants that grow in that soil and to the animals and humans who eat the plants.

Pollution has consequences which affect everything around us. Polluted air is harmful to plants because they rely on carbon dioxide from the air to produce their own food, and it is harmful to humans and animals because it can harm their lungs, as well as causing other health problems like asthma, allergic reactions and problems with vision. In addition, if plants are affected directly, humans and animals are indirectly affected because plants are part of their food chain.

Polluted water is also harmful to animals and plants that live in it. It's also bad for animals and humans who drink it or eat the animals and plants that live in it. If you drink polluted water, you can get sick!

Polluted water can cause diarrhea, stomach problems, and other serious illnesses.

Soil pollution is harmful to animals and plants. Plants get their nutrients from soil, which is kept healthy by the presence of tiny microorganisms that live in it and spread moisture throughout it. If the soil is contaminated, the microorganisms might not be able to live in it, which could cause the plants living in the soil to die. If some animals don't have plants to eat, they will die too.

**2. Complete the chart with correct information.**

Useful phrases:

- The main sources of this type of pollution are...
- The causes include ...
- The consequences include...
- It can harm/it can be harmful to...

| Type of pollution | Causes | Consequences |
|-------------------|--------|--------------|
|                   |        |              |
|                   |        |              |

**3. Answer the following questions.**

- What can we do to reduce pollution in our community?
- What type of pollution is easier to reduce? How?
- What can governments do to reduce pollution?
- Do you take actions to help the environment in your everyday life?

|    |  |
|----|--|
| A. |  |
| B. |  |
| C. |  |
| D. |  |

**4. What is the meaning of the following words? Write them in English.**

|    |         |  |
|----|---------|--|
| 1. | Goods   |  |
| 2. | Spewed  |  |
| 3. | Seeping |  |

**GOOD LUCK!** 😊