Grade 4.

Science and Technology.

2. The Environment.

2.2 Water Pollution.

Water pollution refers to the contamination of water bodies, such as lakes, rivers, oceans, and groundwater, with harmful substances or pollutants.

2.2.1 Causes of Water Pollution.

Factories and Industries: Factories and industries can release harmful chemicals and waste into water bodies when they don't properly treat their wastewater before releasing it.

Farming Practices: The use of fertilizers, pesticides, and herbicides in farming can wash away into nearby water sources, causing pollution. This happens when rainwater or irrigation carries these chemicals into rivers or lakes.

Sewage and Wastewater: When sewage and wastewater from homes, businesses, and sewage treatment plants are not treated properly, they can contaminate water bodies. This can happen if the treatment systems are not functioning well or if there are leaks or spills.

Oil Spills: Accidental spills of oil or petroleum products, such as during transportation or from offshore drilling, can pollute water bodies. Oil spreads on the water's surface and can harm aquatic life.

Trash and Plastics: Improper disposal of trash, especially plastics, can end up in water bodies. These materials take a long time to break down and can harm marine life when animals mistake them for food or get tangled in them.

Atmospheric Deposition: Pollution from the air, such as acid rain, can fall onto water bodies and make them acidic or introduce harmful chemicals.

Washing of clothes and motor vehicles near or in water bodies.

Peeing or bathing in or near water bodies.

2.2.2 Effects of Water Pollution.

Harm to Aquatic Life: Water pollution can be toxic to aquatic plants and animals and sometimes even cause death.

Contaminated Drinking Water: Water pollution can contaminate sources of drinking water, such as rivers, lakes, and groundwater. Consuming contaminated water can lead to waterborne diseases, including diarrhea, cholera, and typhoid, which can cause illness and even death, particularly in vulnerable populations.

Loss of Safe Recreational Areas: Water pollution can make recreational areas, such as beaches and lakes, unsafe for swimming, boating, or other water activities.

Destruction of ecosystems: Water pollution disrupts ecosystems by changing the water quality, reducing oxygen levels, and damaging habitats. This leads to a loss of biodiversity and degradation of natural homes. This can cause some marine life to become extinct.

2.2.3 Ways of Reducing Water Pollution.

Protect Water Sources: Take steps to protect water sources such as rivers, lakes, and aquifers from pollution. Support initiatives that aim to preserve and restore these vital resources.

Plant Trees and Vegetation: Planting trees and vegetation along riverbanks and shores can help filter pollutants, stabilize soil, and prevent erosion, thereby reducing water pollution.

Proper Waste Disposal: Dispose of trash, chemicals, and other waste materials in designated containers or recycling facilities. Avoid dumping waste into rivers, lakes, or oceans.

Limit Chemical Use: Reduce the use of fertilizers, pesticides, and herbicides in gardening and farming. opt for organic or natural alternatives whenever possible and follow instructions carefully to avoid excess application.

Raise Awareness: Educate others about the importance of clean water and the impacts of water pollution. Encourage responsible practices and behaviors to minimize pollution.

Do not bath, swim or pee near or in water bodies.

Do not wash vehicles or clothes near or in water bodies.