

OUR ENVIRONMENT

TEACHERS' NOTES

This project is totally different to any others on our site. What we hope is that you will decide to register your school with the "Dirt Is Good" project and work with them to get your students involved in some activities.

We have provided an initial handout which we hope could be used as a starting point in deciding what to do. This you can give to your students.

Should you still wish to get your students involved but not join the "Dirt Is Good" project, feel free to use our handout to inform and hopefully inspire your students to take some action.

Good Luck.

HANDOUT

The environment plays a vital role in healthy living and, indeed, the very survival of our planet. Earth is a home to many different living species and we all depend on the environment for food, air, water and other needs. But our environment resources are finite. We must, as humans, live in harmony with both the natural environment and the human one. It is important for every individual to save and protect our environment. That is the only way we, as a planet that species can live on, will survive in the future.

WHAT IS THE ENVIRONMENT?

The environment is everything around you. It includes both living and non-living things such as animals, plants, water and soil. The word environment comes from the French word “environ”, which means surrounding. The environment is our life support system. It provides us with the basic elements we need to survive, namely air, water, food and land. Our environment has two main parts; natural parts and human and human-made parts.

THE NATURAL PARTS

The natural parts of the environment are things like the land, the air, the water and living things. This is often divided into four main parts and we will describe each below.

1. The **Lithosphere** - This is basically the top layer of our planet, the crust, and is covered with, in most places, a thin layer of soil, formed of rocks and minerals. It provides forests and grasslands and is the land that we use to grow our food on, feed our animals and build our homes.
2. The **Hydrosphere** - This is the different types of water that cover our planet, namely seas, rivers, lakes and oceans.
3. The **Atmosphere** – This is the thin layer of air surrounding our planet and consists of gases, water vapour and dust particles. The upper layer of the atmosphere has the ozone layer. It protects life on Earth from the ultraviolet (UV) radiation of the Sun. The Earth’s gravitational force holds the atmosphere around it, this is an essential process for life to thrive on the planet.
4. The **Biosphere** – This is also called the living world; the plant and the animal kingdom together constitute the biosphere. The interaction between land, water, and air takes place in this narrow zone of the Earth to support life.

THE HUMAN PARTS

Humans are a part of the environment. We interact with the environment and modify it according to our needs. Early humans used to adapt to the natural surroundings, nowadays we try to adapt the natural surroundings to us. Environmental issues are the harmful effects of human activities on the environment.

There are different types of human activity which affect the environment. Let's look at some (we have excluded climate change as we have a separate project dealing with that issue):-

Water Pollution

The introduction of harmful substances into rivers, oceans, lakes and ponds is called water pollution. These substances may be chemicals from industry or plastic that ordinary people have left. These substances can reduce the amount of oxygen in water and living things (fish, coral) can die. Also discarded plastic and waste can be very harmful to birds and sea creatures.

Furthermore, water is our main source of life so without water, life will not be possible. Therefore, we need to conserve water and control its usage. We need to be aware, and make sure our friends and family are aware, of the need for conservation of water. It will save lives on earth. There are several ways to conserve water. Here are some important and easy ways for the conservation of water and remember in some parts of the world people do not have access to fresh water.

- Keeping the tap closed when not in use.
- Check for leaks in water distribution pipes.
- Try to use collected rainwater for gardening or car washing.
- Do not run more water than necessary while washing and cleaning clothes, utensils, etc.
- If you can, try to shower more than bath.
- Don't run the tap when cleaning your teeth.

Air Pollution

Air pollution is the result of emissions from industries, cars, motor bikes and from the use of fossil fuels. Try to drive less. Walk if you can, cycle or use public transport. Air pollution also contributes to illnesses such as asthma and breathing problems and so increases the cost of medical care.

Waste Pollution

There are various types of waste.

- Normal household waste, usually collected by local councils
- Industrial waste from various industries
- Agricultural waste
- Human waste (sewage)
- Day-to-day waste (plastics, cartons, packets etc.)

All waste needs to be disposed of so that it causes the least possible damage to the environment. Some waste is called biodegradable and this includes rotten food, vegetable peelings etc. This is not usually a problem as most of it will rot away. But a plastic bag will take up to 1,000 years to degrade and a drinks can up to 500 years. If they are just thrown away they not only spoil our countryside and beaches but they can also do harm to wildlife. Furthermore if they are put in landfill sites, with the general shifting of land over time, they can become exposed. We need to find ways to either stop using these harmful materials or a way to recycle them so that they can be used again, maybe in a totally different form. Recycled waste can be used as a substitute for petrol and diesel to power cars and this is being experimented with at the moment.

There is also hazardous waste which not only comes from factories and hospitals but also with things like batteries, light bulbs, old mobile phones and computers.

Laying waste nature

Deforestation is the cutting down of trees and forests and is happening around the world at an alarming rate. There are several reasons why this is so bad for our environment. Trees not only

provide oxygen but also they absorb the harmful carbon dioxide emissions which are doing so much harm to our planet. Forests are also home to a large number of wild animals and plants. Destruction of forests has led to the elimination of a large number of plants and animal species affecting the biodiversity.

Biodiversity

The term biodiversity was first used in about 1985. It deals with nature's variety, the biosphere. It refers to variabilities among plants, animals and microorganism species. Biodiversity describes the richness and variety of life on earth. It is the most complex and important feature of our planet. Without biodiversity, life would not be possible. As with so many things in our environment, we need to protect, conserve and manage biodiversity in order to obtain sustainable benefits for future generations. This could be done by:-

- Preventing the cutting of trees
- Putting a ban on hunting of animals
- Efficient use of natural resources
- Areas being developed for animals where no human activities are allowed

SO WHAT CAN YOU DO?

We hope that this little handout has given you something to think about and talk about. Are there ways in which you can help preserve our environment? Are there projects or ideas you have which might help? The following are some questions you might like to consider:-

- 1.How can we replace disposal items with reusable items and what could you do?.
- 2.How can we conserve water and electricity and what can you do?.
- 3.How can we support environmentally friendly practices and what can you do?.
- 4.How can we recycle waste to conserve natural resources and what can you do?
- 5.How can we clean up the land from litter and what can you do?.

So, the big question is how. Every little effort helps. Have you any thoughts or even inventions to improve things? **One thing is certain. If we do not control the issues that are affecting our environment there will, soon, be no life on earth.**