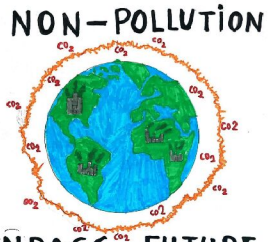


Co-funded by the European Union

Basic Environmental Literacy

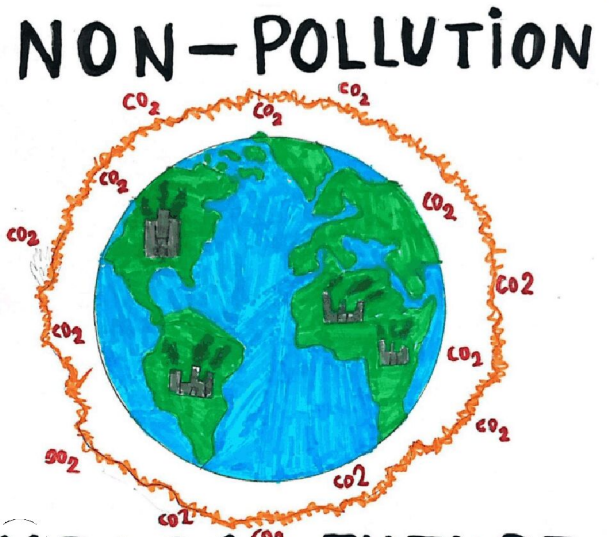




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Erasmus+



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Istituto Italiano Statale Leonardo da Vinci

Szkola Podstawowa w Nowej Iwicznej

SPAIN TÜRKİYE POLAND FRANCE

NON–POLLUTION
ENPASS–FUTURE

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TÜRKİYE Ethical and Aesthetic Values in Environmental Education



Ethical Values: Introduction

Ethical values define people's responsibilities toward the environment and form the foundation for sustainable living. These values guide individuals in respecting nature and other living beings, offering a roadmap for addressing environmental challenges.

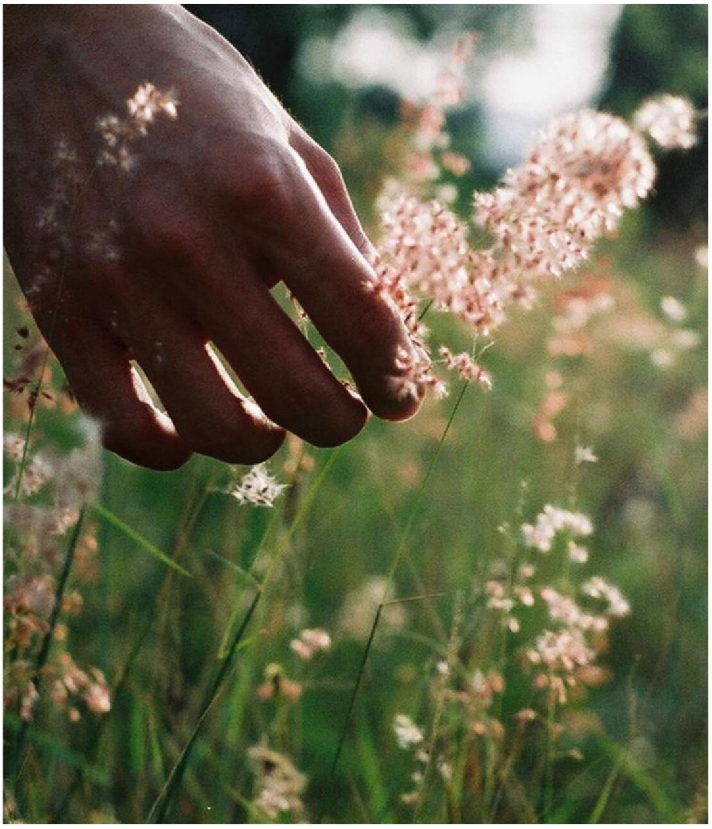
Ethical Values: Details

- **Respect for Nature:** Understanding that nature is a heritage that must be preserved.
- **Sustainability:** Protecting the rights of future generations.
- **Justice:** Promoting fair practices in access to environmental resources.
- **Responsibility:** Taking individual and collective actions to minimize environmental impacts.
- **Solidarity:** Developing collective solutions to global environmental issues.



Aesthetic Values: Introduction

Aesthetic values help individuals develop a sense of love and admiration for nature in environmental education. Recognizing the beauty of nature enhances their motivation to protect and preserve the environment.



Aesthetic Values: Details

Beauty of Nature: The aesthetic evaluation of landscapes, flora, and fauna.

Art and Nature: Art inspired by nature enhances individuals' connection to the environment.

Awareness: Developing an understanding of the need for environmental protection by noticing the details of nature.

Livable Environments: Creating aesthetically pleasing and organized living spaces.

Using Ethical and Aesthetic Values in Education

Environmental education can be effectively implemented through the integration of both ethical and aesthetic values. Educational programs that incorporate these values enhance individuals' environmental awareness and sensitivity.

Application Examples

- **Ethical Discussions:** Discussing moral and ethical dilemmas related to environmental issues.
- **Art and Design Projects:** Developing creative projects using waste materials.
- **Nature Observations:** Activities that involve observing nature to recognize its beauty.
- **Project-Based Learning:** Hands-on work such as ecological restoration projects.
- **Waste Art:** Transforming unused materials into art.





Conclusion

Ethical and aesthetic values enable environmental education to develop environmental awareness and sensitivity in individuals. These values play an important role in creating a sustainable world and should be integrated into educational processes.

>>The Impact of Global Change on Human Health, Infectious, and Epidemic Diseases

Global Change:

- Refers to changes in the Earth's systems, such as climate change, environmental degradation, urbanization, and global trade.

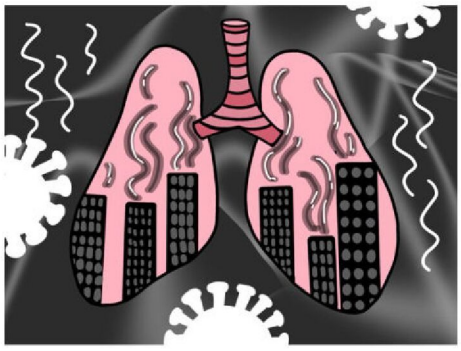


Health Impact:

- These changes significantly affect human health, including the spread of infectious diseases.



Climate Change and Human Health



- **Overview of Climate Change**: Global warming, changes in precipitation patterns, rising sea levels.
- **Impact on Health**:
- **Heatwaves**: Increased mortality from heat-related illnesses (e.g., heat stroke, dehydration).
- **Air Quality**: Rising pollution and particulate matter contributing to respiratory diseases (e.g., asthma, bronchitis).
- **Vector-borne Diseases**: Changes in temperature and rainfall affect the habitats of disease-carrying organisms (mosquitoes, ticks, etc.).

Vector-borne Diseases and Climate Change

- **Vector-borne Diseases**: Diseases transmitted by vectors like mosquitoes, ticks, and fleas. Examples: Malaria, dengue, Lyme disease, Zika virus.
- **Impact of Global Change**:
- Warmer temperatures extend the range of mosquitoes and ticks to higher altitudes and latitudes.
- Altered precipitation patterns increase standing water, creating ideal breeding grounds for mosquitoes.

Impact of Urbanization and Globalization

- **Urbanization:** Rapid growth of cities leads to overcrowding, poor sanitation, and inadequate healthcare, increasing vulnerability to disease outbreaks.
- **Globalization**: Faster travel and trade facilitate the spread of infectious diseases across borders (e.g., COVID-19 pandemic).
- **Emerging Infectious Diseases**:
- Increasing contact between humans and wildlife due to habitat loss and deforestation (e.g., Ebola, SARS).
- Novel viruses and pathogens may emerge from new environments.



Infectious Diseases and Global Health Security

Infectious Disease Burden: Historically, infectious diseases have been major global health threats.

Emerging diseases (e.g., Ebola, COVID-19) continue to pose serious risks.

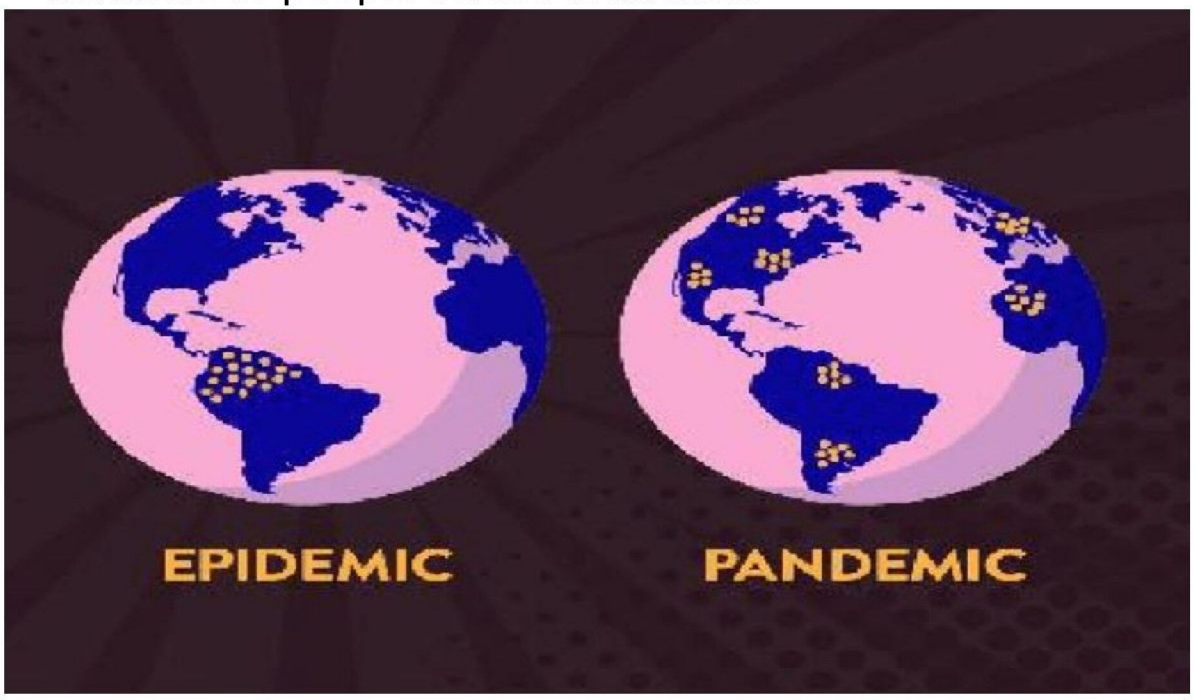
Impact of Global Change: Global change is altering the epidemiology of diseases, making outbreaks more frequent and widespread.

Increased migration and population movement can lead to faster disease transmission.

Epidemics and Pandemics: A New Era

Epidemic vs Pandemic:

- Epidemic: A sudden increase in the number of cases of a disease above normal expectations in a population.
- Pandemic: A global outbreak of a disease affecting large numbers of people across countries.



- **Examples**:
- **COVID-19**: The most recent pandemic, facilitated by global travel, urbanization, and environmental factors.
- **Ebola Outbreak**: Linked to deforestation and human-wildlife interaction.
- **HIV/AIDS**: Spread through global travel, changing sexual behaviors, and unregulated medical practices.



Effects of Global Change on Health Systems

Strain on Healthcare Systems:

- Increased demand for medical care due to rising disease prevalence.
- Health systems often lack the infrastructure to handle large-scale outbreaks.

Health Disparities:

- Vulnerable populations (low-income, rural areas) are disproportionately affected by global changes.
- Unequal access to healthcare exacerbates the impact of epidemics.

Adaptation and Mitigation Strategies

- Enhanced monitoring of disease outbreaks to respond early.
- Promoting vaccination campaigns to prevent the spread of preventable diseases.
- Vector control programs to limit the spread of mosquito-borne diseases (e.g., insecticides, genetically modified mosquitoes).
- Strengthen global health policies and preparedness.
- Integrate climate adaptation into public health strategies.
- Foster international cooperation to combat transboundary health threats.

Questioning the Lifestyle: Environmental Responsibilities

Why Question Our Lifestyle?

- Over the past century, rapid industrialization and consumption have led to environmental degradation, climate change, and resource depletion. It's time to rethink how we live, what we consume, and how our daily habits affect the planet.
- Goal of the Presentation: To explore the environmental impact of modern lifestyles and discuss the responsibilities we all share in protecting the environment.



Understanding Our Current Lifestyle

- Consumerism and Convenience: Fast-paced consumer culture: Buying more, using more, throwing away more. Convenience-driven choices (e.g., single-use plastics, fast fashion) contribute significantly to waste.
- Globalization: Easy access to goods and services from across the globe leads to increased carbon footprints, unsustainable resource extraction, and waste generation.
- High Consumption: Rising demand for energy, water, food, and material goods places immense pressure on the environment.



The Environmental Impact of Our Lifestyle

- **Climate Change**:
  - Human activities, such as fossil fuel use, deforestation, and industrial processes, release greenhouse gases that contribute to global warming.
- **Waste and Pollution**:
  - Single-use plastics, e-waste, food waste, and other forms of pollution overwhelm ecosystems.
  - Landfills and oceans are filling with waste that takes centuries to degrade.
- **Resource Depletion**:
  - Overconsumption of natural resources like water, fossil fuels, and minerals leads to scarcity and environmental destruction.
  - Unsustainable farming and mining practices degrade soil, biodiversity, and ecosystems.

Questioning Our Consumption Habits

- What Drives Our Consumption?

Advertising, social norms, and the desire for status and convenience often drive overconsumption. Are we truly happy with more things, or are we seeking fulfillment in unsustainable ways?

- The "Throwaway Culture": From plastic bottles to fast fashion, we often value convenience over sustainability. How can we reduce waste and move towards a more circular economy?



Environmental Responsibilities: A Global Perspective

- Global Environmental Impact: The environmental footprint of wealthy nations is disproportionate compared to less-developed regions. However, all nations contribute to environmental damage in different ways (e.g., deforestation in the Amazon, fossil fuel consumption in developed countries).
- The Importance of Shared Responsibility: Addressing environmental problems requires a global effort where each individual, community, and country contributes to the solution. Environmental justice involves fair access to resources, and the responsibilities of rich nations to help poorer ones facing the impacts of climate change.

Rethinking Our Lifestyle: Sustainable Alternatives



➢Sustainable Consumption:

- Reduce: Cut down on unnecessary purchases and single-use products. Invest in durable and quality items.
- Reuse: Repurpose and repair items, and support second-hand and upcycled markets.
- Recycle: Separate waste, buy recyclable products, and support businesses that promote a circular economy.

➢Conscious Food Choices: Reducing meat consumption (especially beef and lamb) to lower carbon footprints. Supporting local and organic farming practices, reducing food waste, and choosing sustainable food packaging.

Individual Responsibility vs. Systemic Change

- Individual Action: Every individual has the power to make a difference through their daily choices (e.g., reducing energy use, supporting sustainable businesses).Role of Consumer Power: Consumers can demand more sustainable products, ethical businesses, and transparent practices.
- Systemic Change: While individual actions are important, the larger systems (government policies, corporate responsibility) must change to support sustainable living. Advocating for green policies, renewable energy, waste management, and climate action.

How Can We Make a Difference?

- Practical Actions: Adopt energy-saving habits (e.g., using LED bulbs, reducing water waste, driving less).
- Choose sustainable transportation: cycling, walking, or using public transport. Support businesses that prioritize sustainability and ethical practices.
- Community Engagement: Join local environmental initiatives, clean-up efforts, or community gardens. Participate in campaigns, petitions, and protests to raise awareness and influence policies.
- Political Participation: Vote for candidates and policies that prioritize the environment. Advocate for stronger environmental protection laws at local, national, and international levels.

Sustainable Lifestyles

1. Zero-Waste Movement: People minimizing waste by reducing consumption, reusing products, and recycling as much as possible.

2. Vegan and Plant-Based Diets: Individuals and communities transitioning to plant-based diets to reduce the environmental impact of food production.

3. Eco-Friendly Cities: Cities like Copenhagen and Amsterdam promote biking, green spaces, and renewable energy sources to reduce their environmental footprint.





Overcoming Challenges to Sustainable Living

- **Barriers to Change**:
  - Lack of awareness or understanding of environmental issues.
  - Economic and social pressures that encourage unsustainable practices.
  - Political resistance to adopting environmentally friendly policies.
- **Solutions**:
  - Environmental education and awareness campaigns.
  - Government incentives for green technologies and sustainable business practices.
  - Building a cultural shift toward valuing sustainability over consumption.

Conclusion

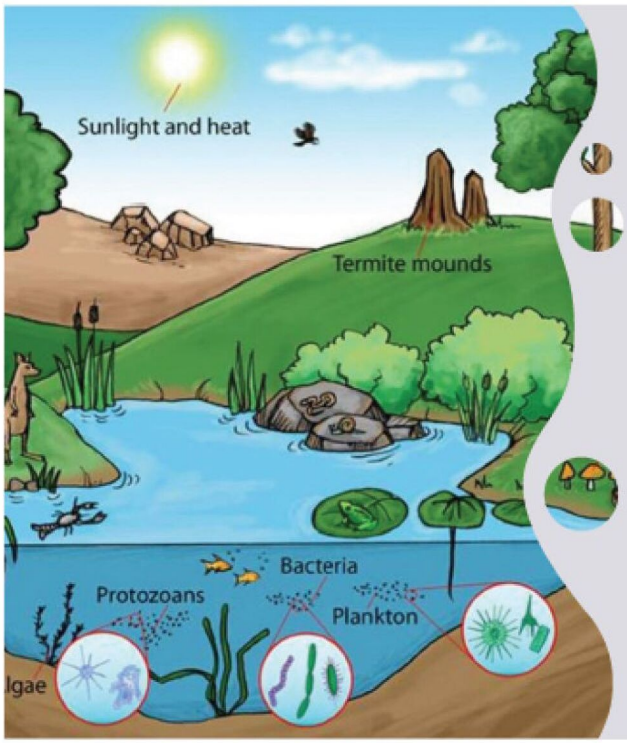
- Summary: Our lifestyles significantly impact the environment, and it's crucial that we begin questioning our consumption habits, waste, and resource use.
- We all have a role to play—whether through individual actions, supporting systemic change, or promoting sustainable policies. The future of the planet depends on the choices we make today.
- Final Thought: Rethinking our lifestyle is not just about sacrifice; it's about building a better, more sustainable world for ourselves and future generations.

SPAIN

Ecology and Ecosystem



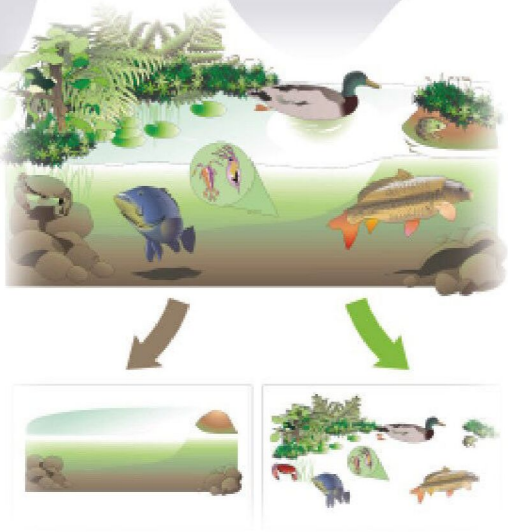
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ECOSYSTEM

A big, complex puzzle made up of different parts that work together to keep everything alive and healthy.

What is an Ecosystem?



- **BIOCENOSIS;** living things: (like plants, animals, and microorganisms)

- **BIOTOPE:** their non-living surroundings (like air, water, and soil).

Everything in an ecosystem depends on each other.

Types of Ecosystems I

- **Forest Ecosystems**: full of trees, plants, and animals. They provide homes for birds, squirrels, insects, and larger animals like deer and bears. Forests help clean the air and provide oxygen for us to breathe.



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Desert Ecosystems: Deserts are hot and dry, but they still support many kinds of life. Cactus plants, lizards, camels, and even certain birds have adapted to live in these dry conditions by conserving water.



Types of Ecosystems II

- **Aquatic Ecosystems**: oceans, rivers, lakes, and ponds. Fish, frogs, plants, and even whales live in these watery environments. Aquatic ecosystems are crucial for providing food, water, and oxygen.



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Grassland Ecosystems: wide open spaces with lots of grasses and few trees. They are home to animals like bison, zebras, and lions. Grasslands help regulate the Earth's temperature.

How Do Ecosystems Stay Balanced?



Everything in an ecosystem is connected. If one part changes, it can affect the entire system:

- ❑ too much pollution in a river, it can harm the fish and plants that live there.
- ❑ trees cut down in a forest, to loss of animal habitats, and the air may not be as clean.



Ecosystems stay balanced when all parts—plants, animals, and their environment—work together. Each organism has a role to play.

How Climate Change Affects Ecosystems

Climate change means the Earth's weather is changing over time.

- burning fossil fuels,
- cutting down forests,
- other human activities are causing the planet to warm up.

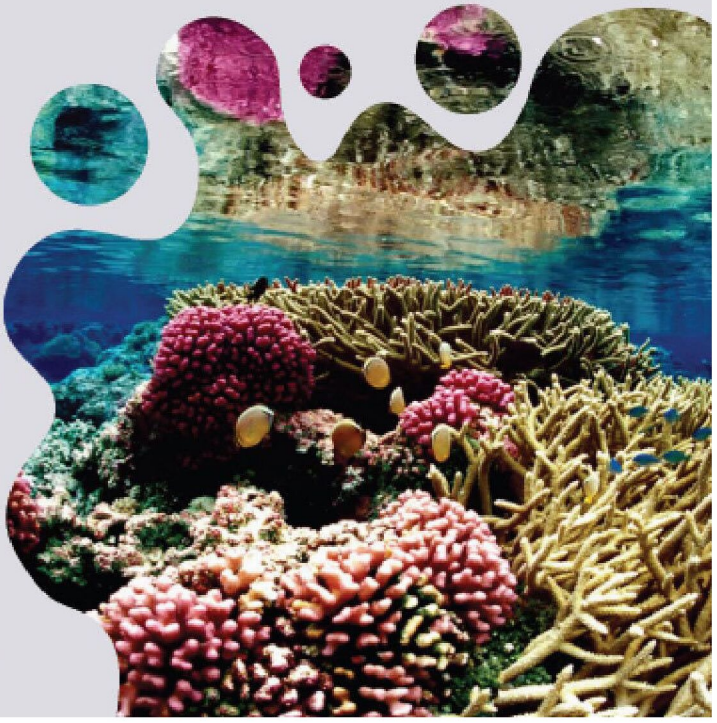
This is called **global warming**, and it affects the climate in many ways. When the climate changes, ecosystems can be harmed.

1. Rising Temperatures

As the Earth gets warmer, temperatures around the world are rising. Some animals and plants are used to living in certain temperatures. When it gets too hot, they may not survive, or they may need to move to cooler places. For example:

Coral reefs in the ocean are very sensitive to heat. When the water gets too warm, the corals get stressed and can die, which affects the fish and other sea creatures that rely on them for food and shelter.

Polar bears live in cold areas like the Arctic. With warmer temperatures, sea ice is melting, and polar bears have to travel farther to find food, making it harder for them to survive.



2. Changing Weather Patterns

Climate change causes more extreme weather events, like stronger storms, longer droughts, and heavy rainfall. These changes can damage ecosystems in many ways:

- **Flooding** can wash away habitats for animals and plants. For example, floods in wetlands or forests can destroy homes for many species, including frogs, birds, and insects.
- **Droughts** (long periods without rain) can dry up rivers and lakes, leaving animals without water to drink. Plants may die, which affects herbivores (plant-eating animals) and the predators that depend on them.



3. Shifting Habitats

When the climate changes, animals and plants may need to move to different areas to find the right conditions to live. This can lead to:

- **Migrating animals**: Some animals, like birds, migrate to warmer places in the winter. But with climate change, they may not know where to go because the seasons are changing. Some animals might arrive too early or too late to find enough food.
- **New plant species**: In some places, warmer temperatures allow new types of plants to grow. These new plants may crowd out the native plants that animals rely on for food and shelter.

4. Melting Ice Caps and Rising Sea Levels

The ice at the North and South Poles is melting because of global warming. This is causing the sea levels to rise, which can:

- **Flood coastal ecosystems**: Coastal areas are home to many animals, like sea turtles, seabirds, and fish. Rising sea levels can flood these habitats, causing animals to lose their homes.
- **Damage freshwater ecosystems**: If seawater mixes with freshwater in rivers and lakes, it can make the water salty, which can harm fish and other creatures that need fresh water to survive.





5. Changes in Food Availability

Animals and plants depend on each other for food. When the climate changes, it can affect what is available to eat:

- **Plants**: Some plants need specific temperatures and amounts of rain to grow. With changing weather patterns, some plants might not grow as well, affecting animals that eat them.
- **Insects**: Insects like bees and butterflies are important for pollinating plants. If the climate changes too much, they may not be able to find the flowers they need, which means plants won't be able to reproduce, and animals won't have enough food.

6. Impact on Oceans and Marine Life

The oceans are getting warmer, and the level of carbon dioxide (CO_2) in the air is increasing. This CO_2 dissolves into the water, making the oceans more acidic. This has several effects:

- **Coral reefs**: Warmer water causes corals to "bleach" (lose their color and health), and they can die. Without healthy coral reefs, fish and other ocean creatures lose their homes and food sources.
- **Marine species**: Some sea animals, like fish, whales, and crabs, are sensitive to temperature changes. As the ocean gets warmer or more acidic, they might not survive or might have to move to different areas, upsetting the balance of marine ecosystems.

7. Loss of Biodiversity

As ecosystems change due to climate change, some species may not be able to adapt fast enough. This leads to:

- **Extinctions**: fewer species in ecosystems, disrupt the balance between predators, prey, and plants.
- **Loss of ecosystem services**: Ecosystems provide important "services" for humans, like clean air, water, and food.



Why is the Environment Important?



It provides us with food, clean water, oxygen, and many other things we need to survive. If we take care of the environment, we help ecosystems stay healthy.

Human activities like pollution, deforestation (cutting down trees), and climate change are damaging ecosystems. This makes it harder for plants, animals, and even humans to live and thrive.

But there are things we can do to help!



How Can We Help the Environment?

1. **Reduce Waste:** Use less plastic, recycle, and try to reduce how much garbage we produce.
2. **Save Water:**
3. **Protect Wildlife:** Animals depend on forests, oceans, and other ecosystems to live. By protecting their habitats and not polluting, we can help keep wildlife safe.
4. **Plant Trees:** Trees help clean the air and provide oxygen for us to breathe. Planting trees helps make our planet healthier.
5. **Be Kind to Nature:** Whether you're playing outside or just walking in the park, remember to respect nature. Don't litter, and try to leave the environment better than you found it.



This is how we do it at our schools

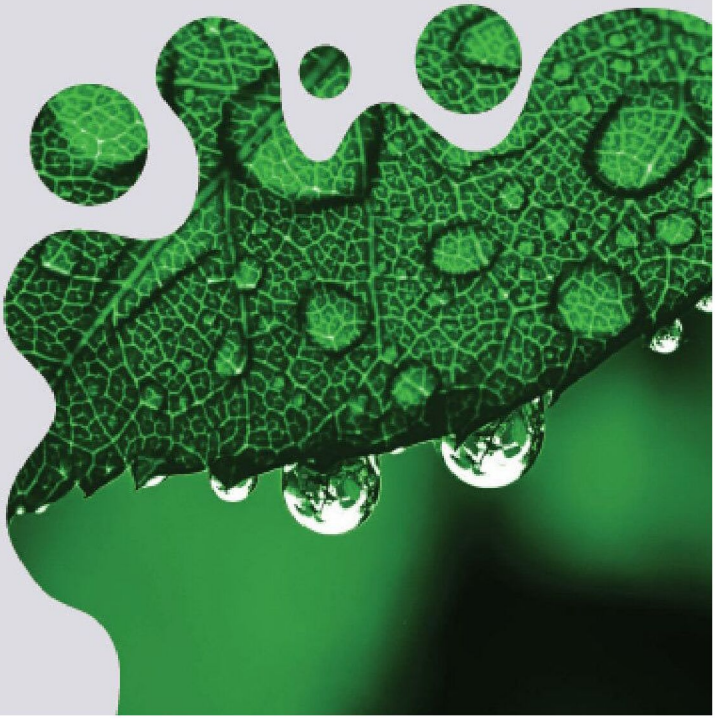
STUDY OF NEARBY ECOSYSTEM AND EROSION

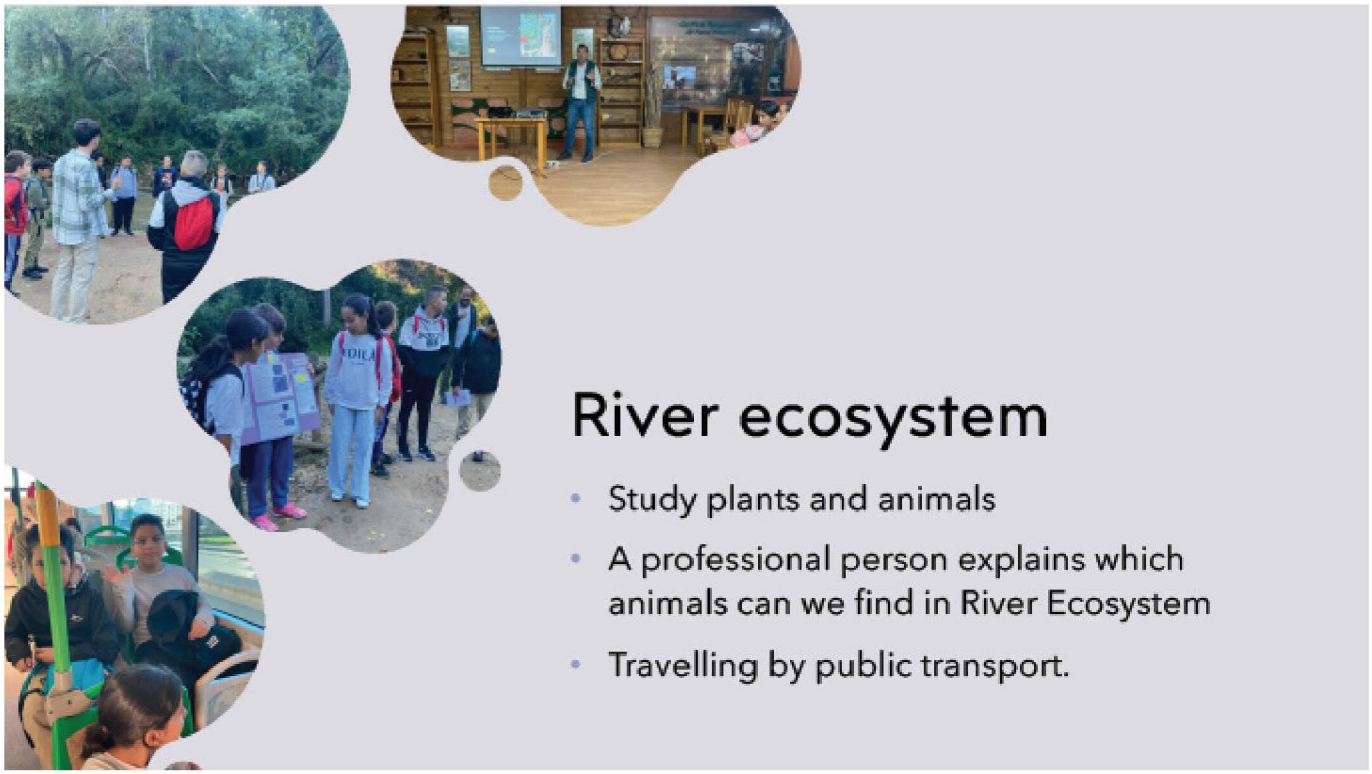
INVESTIGATE ABOUT NATURAL DISASTERS

Conclusion

Climate change is one of the biggest challenges for ecosystems around the world. As temperatures rise, weather patterns change, and ice melts, animals and plants must find ways to adapt, but some may not be able to. We can help! By reducing pollution, conserving energy, planting trees, and protecting natural habitats, we can slow down climate change and give ecosystems a better chance to stay healthy.

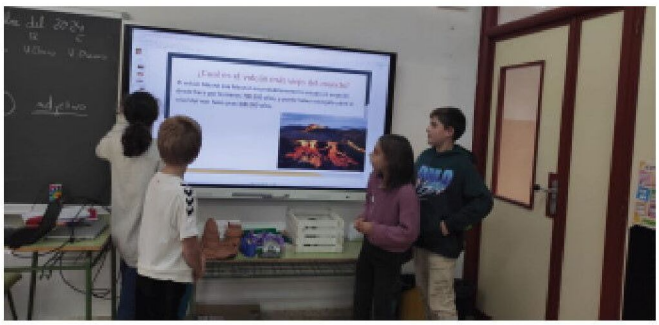
If we all work together, we can protect our planet and the ecosystems that support life—both for the animals and for us!



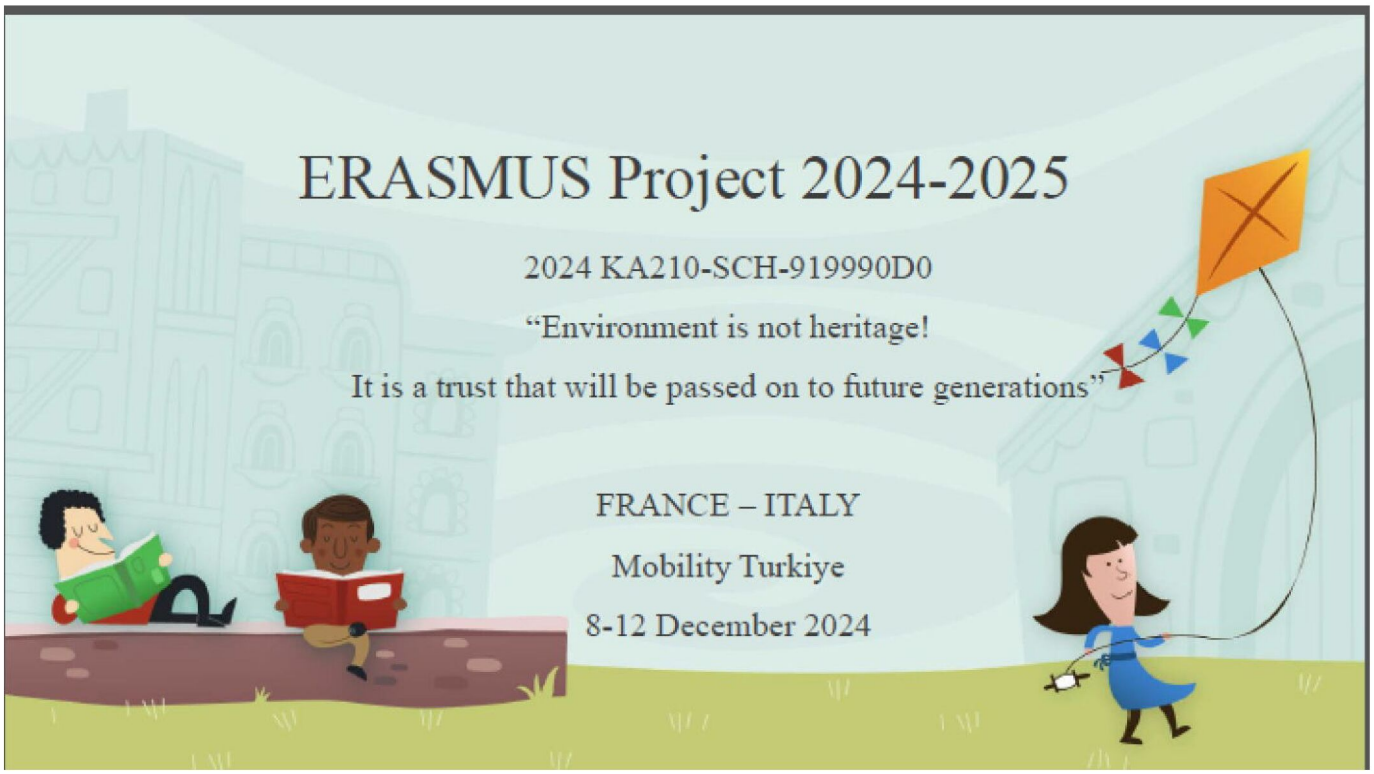

River ecosystem
Study plants and animals
A professional person explains which animals can we find in River Ecosystem
Travelling by public transport.


¿Cómo se forma una Dana?
Se hace cuando una corriente de aire frío del polo norte se choca con el aire caliente del mediterráneo y produce la tormenta





FRANCE Ways to Develop "Eco-Literacy"






Logo contest: our logos
ERASMUS+
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ERASMUS+


More nature close to our school
Our little garden in the park
near the school

More nature close to our school



District project for schools in Paris

We will prepare a project to remove asphalt in front of the school to be able to plant flowers and plants.









WORLD CLEANUP DAY and DIGITAL CLEANUP DAY



Our projects of the last years….Environmental literacy



Our projects of the last years…Air pollution

New deals: Green Screen video project







Environmental education

- **What is global warming**, and what are its consequences?
- **Definitions and key concepts**:
  - Sustainable activities
  - Circular economy
  - Linear economy
  - Ecological, Carbon,
  - Water footprint
- **Main topics**:
  - The impact of industry on ecosystems.
- **Teaching approaches**:
  - Watching videos
  - Lectures
  - Presentation of additional documents
  - Possible visits to exhibitions
  - Educational trips
- .





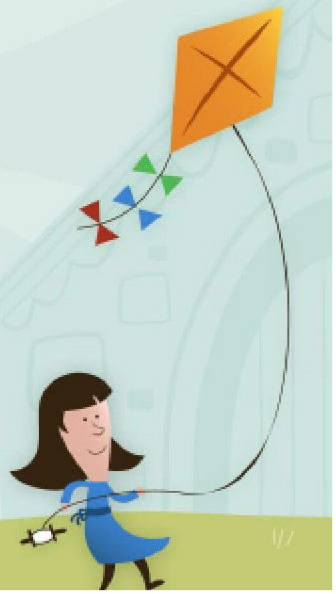
Environmetal Literacy

- Selection, etymological and historical study of vocabulary regarding environmental sustainability;
- writing workshop: creation of short poems, stories or fairy tales on environmental responsibility;
- creation of short videos as "short educational ads" on the vocabulary of environment protection;
- study of experiences of behaviors and lifestyles respectful of the environment in the historical periods studied;
- selection of a few virtuous behaviors and lifestyles to follow each week as a personal commitment and writing of a short weekly journal about the experience.



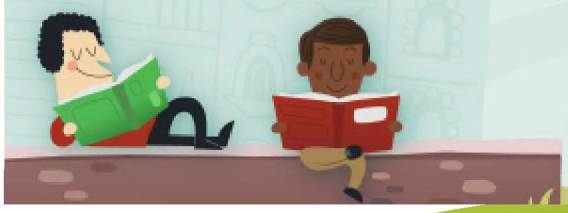
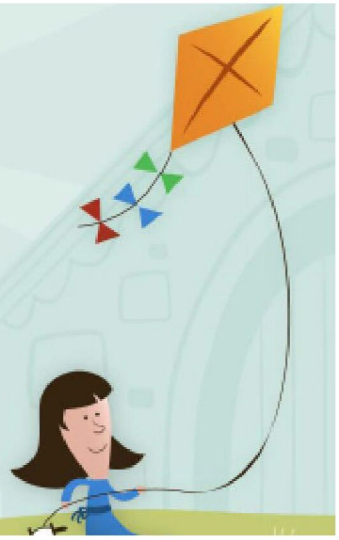

EPI - Environmental Performance Index

- Exposure to environmental risk
- Deforestation
- Loss of Biodiversity
- Global warming
- Water quality and drinkability

The best waste is the one that is not created

Strategies for less waste

NON-POLLUTION
ENPASS-FUTURE

Erasmus+

POLAND

Renewable energy sources and sustainable schools

What are renewable energy sources?

Energy sources types of:

*Solar energy (photovoltaics)

*Wind energy

*Geothermal energy

*Hydropower (hydropower)

*Biomass and biogas

*Biomass and biogas Utilization from the use of energy sources (e.g. CO2 emissions, consumption results).



Why Renewable Energy?

- Environmental concerns (climate change, pollution)
- Growing global demand for energy
- Finite nature of fossil fuels (oil, coal, natural gas)
- Renewable energy as a sustainable alternative

- **Wind Energy**: Energy generated by wind turbines.
- **Hydropower**: Energy from flowing water (dams, rivers).
- **Geothermal Energy**: Heat from beneath the Earth's surface.
- **Biomass Energy**: Energy from organic materials (wood, crops, waste).
- **Solar Energy**: Energy harnessed from the sun's rays using solar panels.
- **Tidal and Wave Energy**: Energy from ocean tides and waves.

Exploring Different Renewable Energy Sources

Solar Power: Harnessing the Sun's Energy

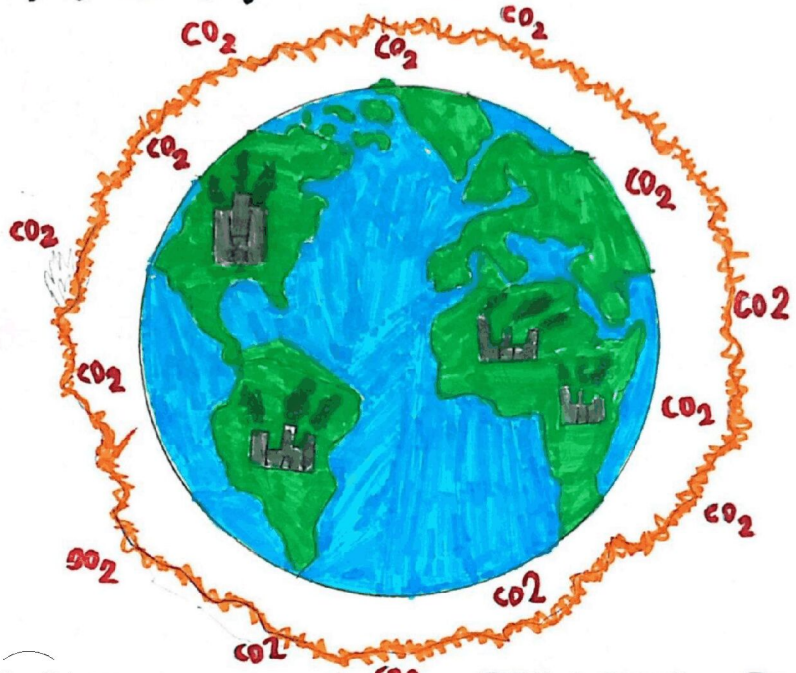
- Solar panels convert sunlight into electricity (photovoltaic cells).
- Solar thermal systems capture heat for water heating or electricity generation.
- Advantages: Abundant, low operating costs, environmentally friendly.
- Global leaders in solar power: China, USA, India.

Wind Power: Harnessing the Power of the Wind

- Onshore and offshore wind farms.
- Advantages: Clean, renewable, large-scale potential.
- Wind turbines convert kinetic energy from wind into electricity.
- Key facts: The cost of wind energy has dropped dramatically in recent years.



NON-POLLUTION



ENPASS-FUTURE

"It is supported by the European Commission within the scope of the Erasmus+ Programme. The content contained here reflects the views of the project partners, and the European Commission and the Erasmus+ program cannot be held responsible for these views."

2024-1-ES01-KA210-SCH-000245460

Environment is not heritage!! It is a trust that will be passed on to future generations!!