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Ecological Education Program

Environmental education - the first in the plan,

for what is counting and reading good for?

when life on Earth does not happen.

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Erasmus+

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Environmental education plays a very important role in the modern world. The destruction of the natural environment has prompted many people and organizations to take steps to protect it. In order for these activities to be effective, it is necessary to develop environmental awareness. Undoubtedly, direct contact with nature and reliable knowledge about the state of our environment will develop correct habits and relatively permanent attitudes towards nature, and will also contribute to its development.

Introduction

The idea of the developed program is to sensitize students to the beauty of the environment in which they live and to acquire such thinking about the world around them, as well as ecological behaviors in everyday life that will allow to shape people with full ecological responsibility.

The implementation of the program does not burden the student with the additional number of hours. The implementation of tasks takes place as a part of organized trips, activities, workshops, interest clubs, during classes through the establishement of ecological inter-subject correlation.

Main goals of the program:

1. Assisting students in perceiving the natural values of the nearest region.

2. Implementation to take actions aimed at limiting the negative impact on the local environment.

3. Passing on the ecological values of the community from the immediate environment.

4. Introducing students to pro-health behaviors.

Aims of education and upbringing

a) knowledge

the student should acquire basic information on:obiektów przyrodniczo i kulturowo cennych w najbliższym środowisku,

- the impact of human economic activity on the local environment (motor vehicles, littering the environment with municipal waste, heating apartments with hard coal, etc.),
- threats to the environment and human health resulting from the production of electricity,
- protection and shaping of the environment, principles of proper management of natural resources,
- healthy eating,

b) skills

the student should master the following skills:

- observation and research of the natural environment,
- shaping an active attitude in activities for the protection of the environment,
- promoting ecological knowledge in the local environment,
- shaping the ability to compare, make independent conclusions, see cause and effect relationships,
- use the acquired knowledge to make rational decisions,
- applying the principles of an informed consumer and a healthy lifestyle,
- solving problems related to the natural environment.

c) attitude and behaviour

the student should shape attitudes and display pro-ecological behaviour such as:

• developing an attitude of co-responsibility for the state of the natural environment,

• belief in the need to preserve the environment for future generations,

• shaping emotional ties with nature, sensitivity to the natural environment,

• participation in environmental protection actions (e.g. cleaning the world, collecting recyclable materials, etc.),

• undertaking ecological activities in the immediate vicinity,

• developing a research attitude, natural interests,

• concern for your own health (proper nutrition, exercise in the fresh air, etc.),

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FORMS OF ORGANIZATION OF CLASSES AND IMPLEMENTATION OF ISSUES

1. **Learning about ecological values through lessons taking place outside**

   • observations of natural values,
   • capturing anthropological elements in the landscape,
   • learning about plant and animal species,
   • documentation of the acquired knowledge

2. **Promoting the idea of protection**

   • participation in contests of ecological knowledge and art works,
   • collecting ecological books and magazines and promoting them to encourage reading,
   • preparation of newsletters and exhibitions,
   • viewing films on environmental issues.

3. **Actions for the protection of the local natural environment**

   • participation in the "Clean Up the World" campaign and other works
   • monitoring the condition of the local environment,
   • cooperation with local government.

4. **Getting to know and promoting a healthy lifestyle**

   • organizing meetings on proper nutrition,
   • organizing healthy food demonstrations and food tasting.

5. **Trips to sewage treatment plants, production plants, eg waste management**

    • collecting information on the safeguards applied against their negative impact on the environment.

6. **Examination of the condition of the local environment**

    • testing of water quality using the physical, chemical and biological methods,
    • monitoring of: air, soil, water,
    • collecting information about the state of the environment in the immediate vicinity.

7. **"A walk through the Festival of the Earth", that is, organizing and participating in the celebration of holidays resulting from nature protection.**
    • September Clean up the world
    • 1-30 April Days of the forest and afforestation
    • 1-7 April Water purity week
    • April 22 Earth Day
    • May 15 Car Free Day

In order to read the ecological program correctly, please use the PDF file program - Adobe Acrobat Reader.

The program is not a rigid structure - new content can be introduced into it in accordance with the changing needs of students and teachers.

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Changes in the atmosphere

1-2. Greenhouse gases and human influence on their increase.

Expected student achievements

- explains the process of creating the greenhouse effect
- will discuss the positive impact of the greenhouse effect on living organisms
- gives reasons for the increase in greenhouse gases in the air
- discusses human activities aimed at reducing air pollution

Working methods

- laboratory method - illustration by experiencing the greenhouse effect
- a talk illustrated with a fragment of the film "The Greenhouse Effect"
- brainstorming
- analysis of infographics

Materials

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3. Influence of my household, region on greenhouse gas content.

Expected student achievements

- is able to describe the share of households in increasing the greenhouse gas content
- understand what a carbon footprint is

Working methods

- observation of solid fuel-fired farms in winter and visual comparison of exhaust gases from solid and gas heating
- brainstorming

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4-5. Acid rains and their impact on the natural environment.

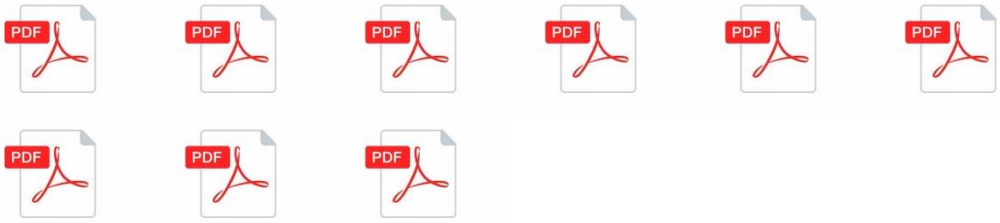
Expected student achievements

- explains how acid rain occurs
- discusses the impact of acid rain on the environment (plants and animals, soil, historic monuments)

Working methods

- viewing and analyzing infographics
- discussion
- laboratory exercises - the effect of acid rain on limestone plants and monuments

Materials



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6. Monitoring the air purity with the use of a lichen scale

Expected student achievements

- perform air monitoring
- make maps with marked zones with different levels of pollution

Working methods

- outside activities,
- practical exercises,
- outside observations,
- work with a brochure - lichen scale

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7-8. What can I do to reduce „low emission”?

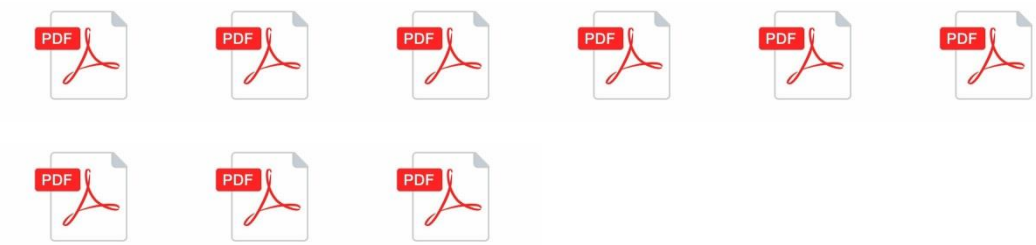
Expected student achievements

- explains the process of smog formation
- discusses the state of air pollution in the local and global aspect
- discusses the sources and effects of low emissions on the environment and human health

Working methods

- workshops
- laboratory experiments: smog in the vessel, automatic filter
- screening of the presentation and the film "Spin the smog"

Materials



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9-10. Street game– Mr Dymowski vs smog.

Expected student achievements

- broadens the knowledge on low emissions
- can sort waste
- knows the advantages and disadvantages of various energy sources

Working methods

- street game
- practical method - waste segregation
- crosswords and jumble

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11. Fight the smog

Expected student achievements

- explains the term: smog, knows its types
- lists air pollutants
- suggests ways to protect against smog and reduce it
- knows the health risks associated with photochemical smog

Working methods

- analysis of infographics
- smog animation
- discussion

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About the need for ecological awareness

12. The environment is a matter for everyone

Expected student achievements

- formulates the principles of economical management of natural resources
- applies these principles in everyday life
- knows the labeling of products manufactured with care for the environment
- lists the simplest principles of energy and heat saving and applies them in everyday life

Working methods

- a chat with elements of discussion
- exercises - recognizing markings on packaging
- analysis of infographics

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13. Garbage - a serious ecological threat to the Earth

Expected student achievements

- explains the impact of waste on living organisms
- classifies waste into decomposable and non-decomposable
- performs an analysis of the garbage in their bin

Working methods

- "Clean up the world" action
- experiences - demonstration
- flyers, posters, infographics
- didactic games

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14-15. How to manage waste - home and school rubbish bin

Expected student achievements

- is able to properly segregate waste
- recognizes the colors and markings of containers and bags for segregation
- knows the 3R rule and the waste management hierarchy
- understands the need for waste segregation and its benefits
- lists and applies in practice ways to reduce the amount of waste

Working methods

- collection of waste paper, batteries
- cleaning actions
- ecological party
- presentation
- quiz
- trip to the Waste Disposal Plant

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16-17. To be a responsible consumer

Expected student achievements

- knows what it means to be a responsible consumer
- gives examples of simple everyday choices towards sustainable consumption (e.g. home, shopping, transport, health)
- gives ways to reduce water consumption

Working methods

- presentation,
- discussion,
- movie
- infographic

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18. Walk through the Earth festivals

Expected student achievements

- learn about issues related to environmental protection on a global and local scale through active participation in shows, school celebrations, e.g. Earth Day

Working methods

- exposing-show method
- role play
- ecological cafe
- information provided by the school's broadcaster
- wheel of fortune
- ecological knowledge competition

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Healthy lifestyle

19. Healthy food

Expected student achievements

- determines how polluted water, soil and air affect our health
- identifies organic food by the symbols placed on it
- appreciates the health and taste of organic food
- indicates the positive and negative effects of the characteristics of a vegetarian diet

Working methods

- talk
- an exhibition with healthy food
- meetings with a dietitian
- exchange of ideas

Materials




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20-21. Recreation and relaxation

Expected student achievements

- lists the forms of active and passive rest
- indicates places in the region that can be used for recreation and relaxation
- is able to promote the natural values of the local environment

Working methods

- discussion
- photographic documentation
- field observation
- bicycle trip

Materials



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CHECKING STUDENTS' ACHIEVEMENTS

The environmental education program assumes, first of all, increasing the environmental awareness of primary school students.

Checking the effectiveness of environmental education is complex. Substantive knowledge can be checked using attractive methods and didactic means, e.g. in the form of:

- competitions
- didactic games
- quizzes
- games, field trips.

A measurable assessment will be the emotional involvement of students in the lessons, taking up practical tasks for the environment:

Preparation of:

• newsletters,
• presentations,
• exhibitions

Participation in actions:

• collecting recyclable materials, e.g "Collecting at school" action,
• "Cleaning the world" action,
• Earth Day,

Lifestyle change:

• reducing the amount of waste at school and at home, its proper segregation,
• changing habits,
• preferring pro-ecological and pro-health attitudes.

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COMMENTS ON THE IMPLEMENTATION OF THE PROGRAM

The methodological support of the program is provided in the following bibliography:

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