Geography is the science that studies the relationships and reflections of natural and social elements in geographic space (their distributions, patterns, interactions, and changes, or laws) to plan functional and, where possible, optimal spatial organization (on a scale from local to global) and to manage space in accordance with sustainable, smart, and inclusive development. Geography inherently has an integrative character and therefore holds a special position in the scientific system as a bridging science, or as a link between the natural and social fields. In its research, it also uses insights from the humanities and technical sciences. Therefore, Geography is the only subject in the education system that holistically teaches about the spatial complex and its identity basis. It is based on the philosophy and logic of space, aimed at quality living and effective, long-term sustainable actions in harmony with nature.

The purpose of learning and teaching Geography is the acquisition of geographical knowledge and skills and positive ethical attitudes (which as a set of competencies can be called geographical literacy) so that students become capable community members who, aware of their responsibility to other people and nature, respecting the principles of sustainable development, actively participate in shaping and reshaping functional spatial organization at various levels, from local to national to global.

Learning and teaching Geography contributes to achieving all fundamental values of the educational system. It enables the acquisition of knowledge necessary for the successful continuation of education and the beginning of a professional career. The knowledge gained enables responsible behavior and actions in the community towards others and nature. The acquired integrity allows for the reasoned advocacy of one's opinions and attitudes. Teaching Geography directly promotes space as an identity basis, developing identity from personal, local, regional to national citizenship, but also to supranational and global identity as a citizen of the world. By developing social sensitivity and ecological awareness, students develop solidarity. The acquired values encourage the acceptance of cultural and other differences and respect for the needs of others, with mutual understanding and respect. The acquired knowledge and developed competencies favor entrepreneurial actions with a reasonable assessment of possibilities, limitations, and risks in everyday and professional life.

Educational goals of learning and teaching Geography

The fundamental value of learning and teaching Geography is developing curiosity about the world and inspiring the creation of a better and more organized present and future for the homeland, Europe, and the world. Geography provides knowledge and skills that enable students to fully understand the very complex and changing world and their place in it. Learning and teaching Geography particularly contributes to understanding sustainability. The modern world is faced with numerous challenges, such as securing drinking water, food, and energy, which are the result of intensive development not aligned with natural capacities. The issue of sustainable development and participation in the responsible evaluation of natural resources that will not irreversibly destroy the environment cannot be understood without Geography. In the subject of Geography, students develop spatial thinking, learn about space, and within space. They learn to orient themselves, navigate, observe and collect data in space, use geographic maps, and new technologies, including geographic information systems. They are trained to recognize spatially relevant problems from local to higher spatial levels. They are encouraged to propose solutions to these problems and actively participate in shaping a better future. Learning and teaching Geography develops a sense of responsibility in students so that each generation leaves behind a more harmonious and organized space than what they inherited.

Sustainability

The geographical approach is based on a holistic approach to sustainability issues, which includes the interaction of natural bases, population, and economic activities in geographic space. The impact of the population is recognizable in the transformation of the environment and the reduction of landscape diversity. Physiognomic and cultural-geographical changes in space ultimately lead to changes in spatial identities. Sustainability should ensure an increase in the quality of life of individuals and the community without harming the environment and causing a loss of spatial and community identity. Sustainable development has become an imperative of today's society and increasingly depends on political decisions and economic pressures. Teaching sustainability begins within the family and continues throughout the years of schooling with constant updates and the acquisition of new knowledge, skills, values, and attitudes. This concept prepares students for sustainable thinking and action with the aim of preserving the environment for future generations.

Integration of Environmental Education in Geography Curriculum

Geography, as a discipline, is deeply interconnected with the environment and human society. In an era marked by climate change, resource depletion, and increasing environmental degradation, the integration of environmental education into geography curricula is imperative. Environmental education empowers individuals to understand the complex relationship between humans and the natural world. By integrating environmental education into geography curriculum, students can:

- **Develop a deeper understanding of environmental issues:** Students can gain a comprehensive understanding of environmental challenges such as climate change, deforestation, and pollution.
- **Foster critical thinking and problem-solving skills:** By exploring real-world case studies, students can develop the ability to analyze complex environmental issues and propose solutions.
- **Promote environmental stewardship:** Geography education can instill a sense of environmental responsibility and encourage students to become active citizens. • **Prepare students for the future:** An environmental focus can equip students with the knowledge and skills needed to address the challenges of the 21st century.

Challenges and Considerations

Integrating environmental education into geography curriculum is not without its challenges. These include:

- **Lack of teacher training:** Many teachers may not have the necessary training to effectively teach about environmental issues.

Limited resources: Schools may lack the resources, such as textbooks and technology, to support an environmental focus.

- **Overcrowded curricula:** It can be difficult to find time to incorporate new content into an already crowded curriculum.

Strategies for Implementation

Despite these challenges, there are several strategies that can be employed to effectively integrate environmental education into geography curriculum:

- **Utilize real-world case studies:** By studying real-world examples of environmental issues, students can connect abstract concepts to tangible problems.
- **Incorporate project-based learning:** Project-based learning can foster student engagement and critical thinking skills.
- **Encourage student research:** Students can conduct research on local environmental issues and develop action plans to address them.
- **Collaborate with community partners:** Partnerships with local organizations can provide students with opportunities to engage in hands-on learning experiences.

Integrating environmental education into a geography curriculum can enhance students' understanding of both subjects by emphasizing the interconnectedness of human and environmental systems.

1. Objectives

- **Raise Awareness**: Help students understand the impact of human activities on the environment.
- **Develop Skills**: Encourage critical thinking, problem-solving, and decision-making related to environmental issues.
- **Promote Action**: Inspire students to engage in sustainable practices and community involvement.

2. Curriculum Content

- **Physical Geography**: Study ecosystems, climate change, natural resources, and biodiversity.
- **Human Geography**: Explore how human settlements, agriculture, and industry affect the environment.
- **Environmental Issues**: Discuss topics such as pollution, deforestation, and conservation efforts.
- **Sustainable Development**: Introduce concepts like renewable energy, urban planning, and sustainable agriculture.

3. Teaching Strategies

- **Project-Based Learning**: Engage students in projects that address local environmental issues.
- **Field Trips**: Organize visits to nature reserves, recycling plants, or sustainable farms. • **Guest Speakers**: Invite environmental experts and activists to share their experiences. • **Use of Technology**: Incorporate digital tools such as GIS (Geographic Information Systems) to analyze environmental data.

4. Assessment Methods

- **Portfolios**: Collect student work over time to assess understanding and engagement. • **Presentations**: Have students present research on environmental topics. • **Reflection Papers**: Encourage students to reflect on their learning and personal impact on the environment.

5. Resources

- **Textbooks and Articles**: Select materials that focus on environmental geography. • **Documentaries and Films**: Use visual media to illustrate environmental issues. • **Online Platforms**: Utilize educational websites and virtual simulations to explore geographic and

environmental concepts.

By integrating environmental education into the geography curriculum, students can develop a holistic understanding of the world and their role in preserving it for future generations. Integrating environmental education into geography curriculum is essential for preparing students to become responsible global citizens. By providing students with the knowledge and skills needed to address environmental challenges, geography education can play a vital role in creating a more sustainable future.

1st Grade

The student analyzes the impact of humans on soil, living organisms, and biodiversity using examples from their local area and the world, utilizing geographic maps and ICT.

- Defines soil and describes the main factors of soil formation
- Explains the importance of soil
- Lists the main types of zonal and azonal soils in the world
- Uses thematic maps to explain the geographic distribution of main soil types in the world and in their country
- Distinguishes the basic characteristics and economic value of the main types of soilAnalyzes soil degradation processes (erosion, salinization, laterization), describes examples of preventing degradation from the world and their country
- Distinguishes between natural and altered vegetation cover and analyzes causes and consequences of biodiversity reduction and the disappearance of certain habitats in the world and their country
- Argues the need to preserve biodiversity
- Explains what geodiversity is
- Explains geohertiage and the importance of its preservation
- Lists examples of protected geohertiage in the world and their country and explains the reasons for their protection
- Describes the main causes, sources, and forms of soil, water, and air pollution and explains the main consequences of these pollutions, with examples locally and globally

The student analyzes data on global warming and lists possible causes and consequences, explains the historical context of nature protection development locally and globally.

- Lists categories of managing protected natural areas according to IUCN and describes some challenges of managing protected areas with examples from Europe and the world • Lists categories of natural area protection in Europe, their characteristics, and the competent authorities that declare each category
- Describes the characteristics of national parks locally
- Argues the need to preserve the environment and participates in activities related to environmental protection
- Researches the state of the environment in their living area (part of a settlement, settlement, surrounding area)

2nd Grade

The student describes different ways of using and disposing of waste and actively participates in them.

• Explains the importance of reuse, reduction, recycling, and changing ways of waste usage • Analyzes waste management problems in their local area, Europe and the world • Independently and in groups, plans, organizes, and conducts waste disposal activities in school and/or the local area

3rd Grade

The student analyzes climate changes and provides reasoned explanations of human impact on global warming.

• Lists evidence of climate change during geological history and in the instrumental period • Explains the greenhouse effect

Analyzes data on the main greenhouse gases in the atmosphere and global temperature • Explains human impact on the emission of greenhouse gases

• Explains climate change as a natural and anthropogenically induced process • Explains the impact of climate changes on life on Earth

• Explains current natural-geographical changes occurring due to global warming • Explains possible consequences of global warming, both negative (e.g., invasive species, climate migrations, conflicts) and positive (e.g., new agricultural and tourism opportunities) • Lists examples of international activities aimed at reducing human impact on climate changes

• Compares and explains different positions of countries and organizations in the world regarding the reduction of greenhouse gas emissions

The student analyzes sustainable management of marine and underwater resources with examples from Europe and the world.

• Describes the exploitation and potential exploitation of the sea and underwater as sources of energy and food

• Describes legal regulations in the exploitation of the sea and underwater with examples from Europe and the world

• Explains the economic role of the continental shelf

• Analyzes the importance of offshore mineral extraction and describes the main limitations and dangers

• Analyzes the importance and sustainability of marine fisheries and mariculture • Describes the characteristics and consequences of El Niño

• Explains the ecological role and value of coral reefs and mangroves, their threats, and the need for protection

• Explains the need and possibilities for legal protection of parts of the sea and underwater on the example locally

The student investigates the causes and discusses the consequences of technological failures on the population, economy, and environment using examples from Europe and the world.

• Analyzes industrial, transport, nuclear, energy, and IT disasters

• Investigates the positive and negative effects of technology application on the population, economy, and environment

• Predicts possible consequences of technology failures for the environment and spatial organization

• Compares the consequences of technological threats using examples of oil spills, nuclear disasters, and water and soil contamination at different spatial levels.

The student analyzes the importance of sustainable development using examples from the local area. Explains the importance and methods of waste management

- Describes the importance and methods of wastewater treatment
- Explains the needs and provides examples of ecoremediation (e.g., waste landfills, quarries, rivers)
- Explains the importance of energy sustainability
- Describes the issues of nuclear waste disposal using the example of the Krško Nuclear Power Plant
- Explains the importance of sustainable tourism development from the perspective of natural resource capacity
- Analyzes the ecological state of the local area from the perspective of sustainable development
- Compares the ecological state of the local area with examples of sustainable development in Europe and the world

The student investigates and analyzes the positive and negative effects of megaprojects on the environment and their sustainability.

• Describes examples of large-scale spatial interventions (megaprojects) • Explains the socio-economic effects of megaproject construction using examples • Analyzes the environmental impact and sustainability of megaprojects using examples from Europe and the world

The student analyzes the city as an organized system, investigates the causes of temperature differences in the city, and proposes ways and measures for the sustainable development of cities.

- Describes elements of the urban system (transport system, waste management, energy system, land use)
- Investigates the causes and consequences of the urban microclimate
- Distinguishes the characteristics of smart, inclusive, and sustainable cities • Identifies elements of a sustainable city (environmental, economic, and demographic sustainability) using an example of a city in the local area

4th Grade

The student investigates the emergence and development of tourism locally and in the world.

- Explains the emergence and development of tourism and evaluates the impact of various factors on its development
- Analyzes the impact of tourism on socio-economic and spatial changes using examples from Europe and the world
- Distinguishes forms of tourism

Distinguishes basic from selective forms of tourism

- Distinguishes tourist place, tourist region, tourist destination, and tourist product • Analyzes data on the number of tourist arrivals, overnight stays, and tourism revenues at the country level, creates thematic maps, and identifies the most developed tourist areas • Investigates and compares factors for tourism development in the most developed tourist areas
- Distinguishes tourist regions in Europe and describes their specific characteristics, highlighting important tourist places and their attractions

- Distinguishes positive and negative effects of various forms of tourism on the population, economy, and environment
- Investigates the possibility of sustainable tourism locally

The student distinguishes forms of tourism, describes tourist regions, and analyzes the impact of tourism on socio-economic and spatial changes using examples from Europe and the world.

• Distinguishes various forms of tourism (e.g., cultural, adventure, eco-tourism) • Describes tourist regions in Europe and the world, highlighting their specific characteristics • Analyzes the impact of tourism on socio-economic and spatial changes using examples from Europe and the world

The student analyzes the impact of natural-geographical and socio-geographical factors on the occurrence and spread of diseases and on health quality using examples from Europe and the world.

• Analyzes natural-geographical and socio-geographical factors that affect human health • Analyzes the spatial distribution and spread of certain diseases in the world in the context of globalization
- Distinguishes the spatial aspects and provides examples of endemics, epidemics, and pandemics
- Compares health indicators at the global and regional levels
- Explains the significance and role of education, WHO, and Doctors Without Borders in disease control

The student investigates the importance of agriculture and analyzes the uneven availability of food in the world.

- Analyzes natural-geographical and socio-geographical factors that influence the development and possibilities of different forms of agricultural production
- Compares the largest producers and exporters/importers of major agricultural food products according to FAO statistics
- Analyzes global food availability and ways to address malnutrition and hunger in the world • Discusses the application of modern technologies in food production

- Discusses sustainable agriculture**Connection with Other Subjects and Interdisciplinary Themes**

By developing awareness of the limitations of energy and raw material resources and the need for sustainable spatial management, Geography, within the concept of Sustainability, contributes to achieving the expectations of the cross-curricular topic Sustainable Development. By achieving outcomes such as analyzing the impact of globalization on national identity and the sovereignty of others, Geography contributes to realizing the expectations of the cross-curricular topics Civic Education and Personal and Social Development. By explaining the factors of development and location of certain activities, Geography contributes to realizing the expectations of the cross curricular topic Entrepreneurship. By analyzing the impact of natural-geographical and socio geographical factors on the spread of diseases and health quality and analyzing the uneven availability of food in the world, Geography contributes to achieving the expectations of the cross curricular topic Health. By understanding how to collect, select, organize, present, and efficiently use information to solve spatial problems, Geography contributes to achieving the expectations of the cross-curricular topic Learning to Learn.

Conclusion

The modern world is faced with numerous challenges, such as securing drinking water, food, and energy, which are the result of intensive development not aligned with natural capacities. The issue of sustainable development and participation in the responsible evaluation of natural resources that will not irreversibly destroy the environment cannot be understood without Geography. In the subject of Geography, students are trained to recognize spatially relevant problems from local to higher spatial levels. They are encouraged to propose solutions to these problems and actively participate in shaping a better future. Learning and teaching Geography develops a sense of responsibility in students so that each generation leaves behind a more harmonious and organized space than what they inherited.

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