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sustainable *life!*
sustainable *climate!*

Environmental Literacy



Small-scale partnerships in school education

2021-2-ES01-KA210-SCH-000048256

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NATURAL RESOURCES AND THEIR USE;

Natural resources are all kinds of substances, energy and living organisms found in nature and used by humans. These resources are vital for our survival. Natural resources are generally examined under three main categories: renewable resources, limited renewable resources, and non-renewable resources.

Renewable resources: Resources such as solar energy, wind energy, hydroelectric energy, biomass and geothermal energy are resources that are constantly renewed and inexhaustible through natural cycles. These resources can be used sustainably and cause minimal damage to the environment.



Limited renewable resources: These resources can be renewed under certain conditions, but they are limited. For example, resources such as forests and fish stocks are at risk of depletion as a result of

overexploitation. Therefore, it is important to manage these resources sustainably.



Non-renewable resources: Resources such as fossil fuels (oil, coal, natural gas) and mineral ores are non-renewable for human use. They form slowly in nature and take a very long time to replace as they are consumed. Additionally, the use of fossil fuels causes environmental and climatic problems.

The use of natural resources should be made in line with the principle of sustainability. This includes the protection of existing resources, their effective and efficient use, recycling and encouraging the transition to renewable resources to ensure that resources are available to future generations. It is also important to reduce waste by taking energy and resource efficiency measures. In this way, sustainable use of natural resources is important from both environmental and economic perspectives.



Ethical and aesthetic values in Environmental Education;



All kinds of education, from children to adults, aim to introduce and adopt the cultural assets of a society. It also provides the child with the opportunity to integrate with society, to live independently within society, and to develop himself according to basic ethical beliefs and rules that are for the benefit of society. This process is often described as socialization. In EU, the basic rules are determined in the Constitution, the Basic Law. Similar rules are set out in the Charter of Fundamental Rights of the European Union. The European Union is therefore a union of values based on respect for human dignity, freedom, democracy, equality and the rule of law.

Protection of nature and the environment is a matter of survival for humanity. It generally aims to protect the foundations of life and creation. It is the ability to act together and in harmony with nature on a global scale. This idea is the ethical basis of what we now call environmental education.

Environmental education must be economically sustainable, be global for the future, and ensure prosperity for all. But today, the destruction of nature, plants and species deprives many people and future generations of their livelihood. The motto is: "Don't live today at the expense of tomorrow!" This slogan applies above all to air, soil, water, forests, vegetation, biodiversity and fossil fuels.

The situation becomes critical and problematic when resources are overused and exploited for economic interests.

To take an example from the 17th century, so much wood was required for the construction of warships, mining and heating that led to the threatening destruction of the forest. Although they were initially able to meet the daily demand, the pro-Cameralist Saxon miners realized that things could not continue like this. Miner traveled throughout Europe, visiting England and France, as well as visiting Louis VI's finance minister, Jean Baptist Colbert. When he returned to Saxony, he drafted a comprehensive regulation for forestry. Accordingly: Only enough trees can be cut down to grow again. From then on, this regulation was called the "sustainable forestry" principle, and that principle is now considered the source of sustainable thinking for all sectors.

As a result, environmental protection awareness and environmental education; We know that it occurs due to the emergence of an emergency, crisis, accident or even a disaster. After these disasters, anxiety about the future motivated humanity.



Five Ways to Develop Eco-Literacy;

Ecoliteracy is built on a new integration of emotional, social and ecological intelligence popularized by Daniel Goleman. Social and emotional intelligence expand students' abilities to see from another's perspective, empathize, and care, while ecological intelligence applies these capacities to the understanding of natural systems and combines cognitive skills with empathy for all life. By combining these forms of intelligence, ecoliteracy builds on



the successes of the educational movement—from reducing behavioral problems to increasing academic achievement—to promote social and emotional learning. And it develops the knowledge, empathy, and action needed to practice sustainable living. We have identified the following five practices to help educators promote socially and emotionally engaged ecoliteracy. Of course, these aren't the only ways to do this. But we believe educators who develop these practices offer a strong foundation for becoming eco-literate, helping themselves and their students build healthier relationships with other people and the planet. Each can be nurtured in age-appropriate ways for students, from pre-kindergarten through adulthood, and can help develop cognitive and affective abilities that are central to the integration of emotional, social, and ecological intelligence.

1. Develop empathy for all forms of life;

At a fundamental level, all organisms, including humans, require food, water, space, and conditions that support dynamic balance to survive. By recognizing the common needs we share with all organisms, we can begin to shift our perspective from a view of humans as separate and superior to a more unique view of humans as members of the natural world. From this perspective, we can expand our circle of empathy by considering the quality of life of other life forms, feeling genuine concern for their well-being, and acting on that concern. Most young children show interest and affection towards other creatures. This is one of the few indicators that the human brain is ready to feel empathy and concern for other living beings. Teachers can nurture this capacity for interest by creating classroom lessons that highlight the important roles plants and animals play in sustaining the web of life. Empathy can also be developed through direct contact with other living things, such as keeping live plants and animals in the classroom; taking field trips to nature areas, zoos, botanical gardens, and animal rescue centers; and involving students in field projects such as habitat restoration.





Another way teachers can help develop empathy for other ways of life is by studying indigenous cultures. From early Australian Aboriginal culture to the Gwich'in First Nation in the Arctic Circle, traditional societies viewed themselves as intimately connected to plants, animals, land, and life cycles. This worldview of interdependence guides daily life and helps these societies survive for thousands of years, often in fragile ecosystems. By focusing on their relationships with their environment, students learn how a society lives when it values other ways of life.

2. Adopting sustainability as a community practice;

Organisms cannot survive in isolation. Instead, the network of relationships within any living community determines its ability to collectively survive and thrive. By learning about the wonderful ways plants, animals, and other living things depend on each other, students are inspired to consider the role of interconnectedness within their communities and see the value in strengthening these relationships by thinking and acting collaboratively. However, the concept of sustainability as a community practice incorporates some features that fall outside the way most schools define themselves as “community,” but these elements are essential to building eco-literacy. For example, students can consider whether their daily practices value the common good by examining how their community supplies itself, from school meals to energy use. Other students might follow the approach of a group of high school students in New Orleans known as the “Rethinkers,” who collect data on the sources of their energy and the amount they use and then survey their peers by asking the question: whether we should be more resilient and what negative effects they have on humans, other living things, and the planet. Should we change the way we use energy to reduce energy consumption? As Rethinkers shows, these projects can give students the opportunity to begin building a community that values diverse perspectives, the common good, a strong network of relationships, and flexibility.

3. Make the invisible visible;

Historically—and for some cultures that still exist today—the path between a decision and its consequences was short and visible. For example, if a farming family clears their land of trees, they may soon experience flooding, soil erosion, lack of shade, and a massive decline in biodiversity. But the global economy has created blinds that protect most of us from experiencing the far-reaching consequences of our actions. For example, as we increased our use of fossil fuels, it became difficult (and remains difficult for many people) to believe that we were disrupting something of the magnitude of Earth's climate. While some places on the planet are starting to see evidence of climate change, most of us are experiencing no change at all. We may notice unusual weather, but daily weather is not the same as climate deterioration over time.



If we work to develop more life-affirming lifestyles, we can find ways to make visible what seems invisible. Educators can help through a number of strategies. They can



use extraordinary web-based tools, such as Google Earth, to allow students to virtually “travel” and see the scenery in other regions and countries. They can also introduce students to technological applications such as GoodGuide and Fooducate, which are informed by a wealth of research, and demonstrate that certain household products

are important for our health, the environment, and social justice. can “package” it into easy-to-understand formats that reveal its impact on .Through social networking sites, students can communicate directly with citizens in remote areas and learn firsthand what others are experiencing that most students cannot see. Finally, in some cases, teachers can organize field trips to directly observe places that have been quietly devastated as part of the system that provides energy for most of us.

4. Anticipate unintended consequences;

Many of the environmental crises we face today are unintended consequences of human behavior. For example, we have experienced the unintended but serious consequences of developing the technological ability to access, produce, and use fossil fuels. These new technological capabilities are largely seen as progress for our society. But recently the public has become aware of the downsides of our dependence on fossil fuels, such as pollution, international conflicts and climate change. Teachers can teach students several important strategies for predicting unintended consequences.

One strategy – the precautionary principle – can be boiled down to this basic message: When an activity threatens to have a harmful effect on the environment or human health, precautionary measures should be taken, regardless of whether a cause-effect relationship is scientific or not. Historically, to impose restrictions on new products, technologies, or practices, people concerned about possible adverse effects were expected to scientifically prove that they would be harmed by them. In contrast, the precautionary principle (now in effect in many countries and some places in the United States) places the burden on manufacturers to prove harmlessness and accept liability in the event of harm.

Another strategy is to move from analyzing a problem by reducing it to its isolated components to adopting a systems thinking perspective that examines the connections and relationships between the various components of the problem. Students who can apply systems thinking are often better at predicting the possible consequences of a seemingly small change in one part of the system that could potentially affect the entire system. An easy way to look at a problem systematically is to map it and all its components and interconnections. Then it is easier to grasp the complexity of our decisions and foresee possible consequences.



Finally, no matter how adept we are at applying the precautionary principle and systems thinking, we will still encounter unforeseen consequences of our actions. Building resilience (for example, by moving away from monocrop agriculture or creating local, less centralized food systems or energy networks) is another important strategy for survival in these conditions. We can turn to nature and see that the capacity of natural communities to recover from undesirable consequences is vital to survival.

5. Understand how nature sustains life;

Ecologically literate people recognize that nature has sustained life through the ages; as a result, they turned to nature as their teacher and learned several important principles. Three of these principles are particularly essential for ecoliterating life. First of all, eco-literate people have learned from nature that all living organisms are members of a complex, interconnected web of life, and that the survival of these members living in a particular place depends on their interconnectedness. Teachers can promote understanding of the diverse web of relationships

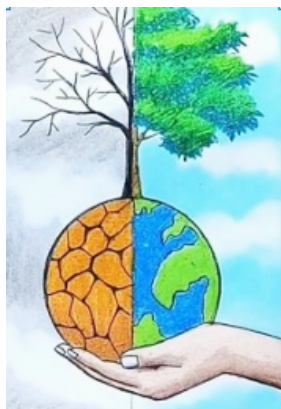
within a location by having students examine that location as a system.

Second, environmentally literate people tend to be more aware that systems exist at various levels of scale. In nature, organisms are members of systems nested within other systems, from the micro to the macro level. Each level supports the others to sustain life. When students begin to understand the complex interplay of relationships that sustain an ecosystem, they can better understand the effects of even a minor disturbance on survival or the importance of strengthening relationships that help a system respond to disturbances.

Finally, eco-literate people collectively practice a way of living that meets the needs of the current generation while also supporting nature's ability to sustain life in the future. They learned from nature that members of a healthy ecosystem do not misuse the resources they need to survive. They also learned to take only what they needed from nature and to adjust their behavior in times of boom or bust. This requires students to learn to take the long view when making decisions about how to live. Developed by the Berkeley-based Center for Environmental Literacy, these five apps offer guides to exciting, meaningful, and deeply relevant education that builds on social and emotional learning skills. They can also plant the seeds of a positive relationship with the natural world that can sustain a student's interest and interest for a lifetime.

Reference;

https://greatergood.berkeley.edu/article/item/five_ways_to_develop_ecoliteracy



Orientation in Environmental Literacy;

Information about opportunities to green business processes..



- 1-Reducing environmental impact;
 - +Heating, ventilation and air conditioning and controls.
 - +Carbon saving (energy management)
 - +Lighting and controls
 - +Reducing water consumption
 - +Tracking and targeting
 - +Green products (purchase green cleaning supplies; use green packaging policies and techniques; green office equipment)
- Minimizing waste
 - Eliminate or reduce
 - Reuse
 - Recycle
 - to destroy
- 2-Greening business processes, products and services
 - Green products...
 - 1-Increased energy efficiency and/or used renewable energy
 - 2-contains lower levels of carbon (less energy required to produce)
 - 3- Having a positive environmental impact
 - 4- Made from less hazardous materials
 - 5-Made from materials that are more easily recyclable or recyclable
 - Green services...
 - 1-Offer differentiated services from standard options
 - 2-It often adds value to the service, so customers are willing to pay more.
 - 3-for example: green holidays using low-carbon travel and accommodation; local food (with minimal packaging); using water-based ink and recycled paper; fashion with a sustainable supply chain; recycling services
 - 4- Improvements should be specific to the market



Sustainability and environmental education;

We are currently facing global warming, acid rain, air and water pollution, climate change, and many other environmental problems that affect every animal, human,



and nation on our planet Earth. In recent years, the number of natural disasters such as flash floods, earthquakes, blizzards, tsunamis and hurricanes has increased at an alarming rate, indicating that the measures we have already taken to protect our planet are not sufficient. . Therefore, there is a constant need to not only look for global solutions, but also to focus on the role

of each individual to ensure they act locally.

It is widely accepted that people's environmental values and attitudes are greatly influenced by the society around them. Therefore, families and schools are of the greatest importance to improve environmental education. They are very important environments for students where they learn, imitate and apply their knowledge, attitudes and behaviors, so it is the responsibility of both parents and teachers to raise responsible, pro-environmentally behaving young people.

Environmental education has a tremendous impact on building people's knowledge and attitudes and is extremely practical in motivating them to improve and protect the environment.

Therefore, people of all ages should be informed and taught about the environmentally friendly lifestyle. Various activities (workshops, discussions, projects, etc.) have the potential to influence everyone, especially students, to act pro-environmentally. They also help encourage students to become more concerned about pollution, keeping the environment clean, irrational and irresponsible use of natural resources, and rampant consumerism. For example, according to the UN Environment Programme, fashion alone produces more greenhouse gas emissions than both the aviation and marine sectors combined and around 20% of global wastewater, or around 93 billion cubic meters from textile dyeing. Moreover, an estimated 92 million tonnes of textile waste is produced each year, and this number is expected to rise to 134 million tonnes annually by 2030. , nylon, polyamide, acrylic and other synthetic materials leach into soil and nearby water supplies.

Environmental education is therefore crucial in shaping the eco-culture of students, arguing that "literate people are responsible people." As we educate students on environmental issues, we prepare them to act pro-environmentally, both in their daily routines and as future employees. The main thing is that one day they will remember what they were taught at school and then they will most likely act environmentally.



Effect of Climate Change on Human Health and Infectious Diseases;

Climate change is a complex phenomenon that affects many environmental issues around the world and has a significant impact on human health. In recent years, climate changes such as increasing temperature, heavy rainfall, drought, and sea level rise affect human health directly and indirectly. With our project, the effects of climate change on human health and infectious diseases were also examined.

Effects of Climate Change on Health:

Temperature Increase and Heat Waves: With climate change, there is an increase in temperature around the world. Rising temperature poses a health risk, especially for vulnerable groups such as the elderly, children and those with chronic diseases. Heat waves become more frequent and severe as temperatures rise, leading to an increase in heatstroke and other heat-related diseases.

Water Resources and Access to Clean Water: Drought and changes in rainfall regimes can affect water resources and reduce access to clean water. This is of particular concern in regions where water plays a fundamental role in the spread of infectious diseases.

Food Security and Nutrition: Climate change negatively affects agriculture and food production. Impacts such as irregular rainfall, drought, floods and erosion of agricultural lands can reduce food production or reduce its quality. This can increase nutritional deficiencies and foodborne illnesses.

Its Role in the Spread of Infectious Diseases:

Flies and Mosquito-Borne Diseases: Increased temperatures increase insect populations, encouraging the spread of mosquito-borne diseases (malaria, dengue fever, Zika virus, etc.). Additionally, climate change may increase waterlogging, expanding mosquito breeding grounds.

Waterborne Diseases: Increasing temperature and pollution of water resources can facilitate the spread of waterborne diseases (cholera, typhoid, hepatitis A, etc.).

Conclusion:

Climate change is a complex problem with direct and indirect impacts on human health. It includes various mechanisms that play a role in temperature increase, changes in water resources, food security, and the spread of infectious diseases. Therefore, to reduce the effects of climate change on health, sustainable solutions should be focused on and policies and strategies that combat climate change should be adopted. In addition, raising public awareness and taking appropriate precautions is of critical importance in this regard.





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