

“CONSERVATION KIDS”

A Green STEM Documentary
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Overview:

Conservation Kids addresses real-world events using STEM principles to explain the connection between Mother Nature and her agricultural lands, waters, forests and parks, soils and wildlife habitats. The rapid pace of technological advancement, and its effect on our lives, is having a significant impact on nature and how we address conservation.

When we look at our lifestyles we see an increasing disconnect between conservation and what kids are learning about this important subject. Many of our kids, in both public and private schools, are learning STEM (Science, Technology, Engineering, and Mathematics) curricula. STEM however, does not usually include the study of natural resources conservation; topics that can be found right outside everyone’s front door.

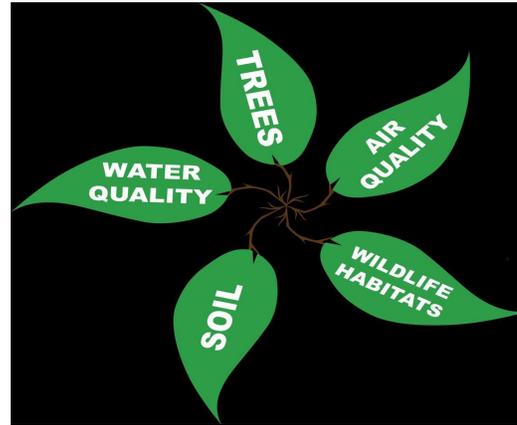
Enabling kids to make connections with the natural world is critical to understanding the larger scope of the natural world around us. Our kids are experiencing Natural Deficit Disorder (NDD) and spending so much time in front of screens, computers, gaming consoles, phones and tablets is having a negative impact on their ability to be hands-on with Planet Earth. “Conservation Kids” works to bridge this gap starting with raising awareness with this 26:46 Green STEM documentary.



Exploring Conservation:

As we explore different aspects of conservation, we can help our kids understand the work involved in preserving the valuable resources we must protect for future generations. Teaching them how to thoughtfully consider the issues surrounding healthy soil, water quality, trees, air quality and wildlife habitats will increase their understanding of what part they can play in protecting these important resources. Interviews with an Albert Einstein Fellow, a co-founder of the Children & Nature Network, a state conservationist, a nature center program manager, and an executive director from the Chesapeake Bay Foundation are used as threads for the story.

The Five Elements of “Conservation Kids”



1. **Soil Conservation:** We can encourage our kids to interact with Mother Earth to understand soil conservations The world’s population will reach nearly 8 billion people by 2023 and everyone is going to need healthy, viable soil to grow nutritious, safe food.

How can kids understand soil conservation locally? Connecting with local farmers to understand where food comes from can be a solid foundation upon which kids can deepen their knowledge of agriculture. Kids can visit local farms to hear directly from farmers about the challenges they face to keep their soil enriched and their crops healthy.

We can teach our kids about responsible farming through terrace or arable farming which helps conserve soil nutrients. Kids also benefit from hands-on experiences and making connections with the soil. Exposing kids to local community gardens, or starting one yourself, can be a fun way for kids to experience the process of soil conservation and how their actions impact the production of food.

2. **Water Quality:** As time passes, we can all see the impact of water shortages and the need to conserve water for an ever-growing population. There are simple ways kids can learn about clean water; exploring local waterways on hikes, avoiding wasteful water practices in the home and school, and being mindful of how often and how much we water our lawns.

Visits to local farms can teach kids about irrigation, the use of fertilizers, and runoff. We can use rain barrels in our yards and schools to show how water harvesting works. These actions show kids how to conserve water in small increments.

Just taking kids on a scenic hike to local lakes and reservoirs can help them understand where their water comes from, while still enjoying a natural environment.

3. **Trees:** We have a crisis on our hands in terms of forest conservation. There is a real urgency to conserve our forests and prevent further damage to the environment from poor land management practices. How do we teach kids about these important issues on a local level? Our forests are home to birds and animals for whom are critical to the ecosystem. Kids can make connections by visiting nature centers, hiking in the forest/woods and making observations about the delicate ecosystem.

Growing enduring forests is a way to help re-balance the inequity that we currently see through damaged forests, logging, and forest fires. You can join local bird-watching groups who enjoy monthly hikes to observe birds and their habitats. Choosing to recycle in the home can show kids how we have the ability to impact our forests every day. Plant trees to improve water quality for your local watershed.

4. **Air Quality:** Explore how trees effect ecosystems and the services they provide. These services can better health, pollination, and outdoor recreation. Go for a walk in the woods to learn about how carbon dioxide is absorbed by trees. Explain what the United States Environmental Protection Agency does for the country. Discuss the different between indoor air quality and outside pollution.
5. **Wildlife Habitats:** Exploring wildlife conservation is a fun way to get kids connected with the animal life around them. Visiting facilities that rescue animals and keep them in humane conditions can be a very effective way of showing kids firsthand how we must protect our animals. Supporting local aquariums and charities that raise money for the protecting of wild animals and plants is another way to participate. Finding ways to connect aquatic species to water quality.

Additional Resources	Essential Questions
<ul style="list-style-type: none"> ● <u>National Farmers Markets Directory</u> https://www.ams.usda.gov/local-food-directories/farmersmarkets ● National Forest Foundation https://www.nationalforests.org/blog/sixteen-national-forests-near-national-parks?gclid=CjwKCAiAo8jgBRAVEiwAJUXKqHi0_sKe8QUa-tbr4jTGE_GaiffqR9lu3XDD6d-m7g7XnH9xlLBNeAxoClRcQAvD_BwE ● Save The Water http://savethewater.org/?gclid=CjwKCAiAo8jgBRAVEiwAJUXKqHzsvfOtmWIEICNYhOEjc070yBLQjkbioV6DH5Uc6AmVoFMhX0w8uRoClSkQAvD_BwE ● United States Department of Agriculture https://www.nal.usda.gov/afsic/agritourism-and-farm-tours ● National Audubon Society https://www.audubon.org/news/how-start-identifying-birds-their-songs-and-calls ● National FFA https://www.ffa.org ● Robinson Nature Center - https://www.howardcountymd.gov/Robinson 	<ul style="list-style-type: none"> ● What is conservation? ● How are the different elements of conservation linked? ● What can we do to explore our local resources? ● How can we empower kids to feel in control of the conservation process? ● How can we encourage kids to get connected with Mother Nature? ● What lines of inquiry can kids follow as they meet people in the community who are working hard to protect the world’s resources through conservation? ● How can kids record their findings as they learn about conservation? ● How can we help them interpret the data they collect so it is meaningful?

*Curriculum developed and written specifically for “Conservation Kids” A Green STEM Documentary
by Suzanne Razaq MBA of TUTORING SERVICES*