

Nurturing Environmentally Responsible Students through Science Education

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Mr. Adrian Eusyle Visperas Gutoman, MEd, LPT, stands as a dedicated educator, author, and writer. A proud alumnus of the University of Luzon, he earned his Bachelor of Secondary Education, major in Biological Science (With Distinction) in 2018, and later completed his Master in Education, major in Science Education (Bene Meritus/Magna Cum Laude) in 2021.

He served as the former Chairperson of the Science Education Department at Pangasinan State University–Lingayen Campus. Before assuming the chairmanship, Mr. Gutoman had held several key roles within the College of Teacher Education, including Research Coordinator, Local and International Linkages Coordinator, and Adviser of The Environmentalists' Club.

In the classroom, he teaches general education science, biology, and earth science major courses. Beyond teaching and administration, Mr. Gutoman is an accomplished author. He has co-authored three educational books published by EduHeart Knowledge Network and Publishing, Inc.—Fighters for Life Series 4: Moving Closer to Your Goals, The Educators in the 21st Century, and Teaching Beyond Boundaries. He is also a contributor to academic and education magazines, where he shares his insights on pedagogy, research, student and teacher empowerment.

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The future of our planet is not being shaped in boardrooms, laboratories, or government offices alone—it is also being shaped inside classrooms. Every science lesson taught, every question asked, and every discovery made has the potential to inspire a young mind to care for the world around them. In an age when environmental challenges grow more urgent each day, science education has become more than a subject; it is a pathway to building a generation of environmentally responsible citizens.

Today's students are the first generation to witness the full impact of climate change and environmental degradation on a global scale. They see stronger typhoons, rising temperatures, polluted rivers, disappearing forests, and declining biodiversity. Yet amid these challenges lies an opportunity: the opportunity to transform concern into action through education.

Science education empowers students to understand the environment not as a distant concept but as a living system to which they are deeply connected. Through the study of ecosystems, climate, energy, and natural resources, learners discover how every action creates a ripple effect. They begin to realize that conserving water, reducing waste, planting trees, and protecting wildlife can contribute to a healthier, more sustainable future.

However, environmental responsibility is not developed through memorizing facts alone. It grows when students experience science in meaningful ways. A seed planted in a school garden

teaches more than photosynthesis; it teaches patience, responsibility, and respect for life. A community clean-up drive demonstrates that environmental protection begins with individual action. A lesson on climate change becomes more powerful when students see how science can help communities adapt and thrive.

Teachers play a vital role in this transformation. They are not merely providers of information but cultivators of awareness and action. Through engaging lessons, hands-on investigations, and real-world applications, educators inspire students to become critical thinkers and responsible stewards of the environment. They help learners understand that science is not only about understanding the world—it is also about improving it.

In a disaster-prone and environmentally vulnerable country like the Philippines, this mission is especially important. Schools have the responsibility to prepare students not only for examinations but also for the environmental realities they will face in the future. By integrating environmental education into science learning, schools empower young people to become leaders of sustainability and resilience.

Ultimately, the greatest legacy of science education is not found in textbooks or test scores. It is found in students who choose to care, act, and lead. When science nurtures environmental responsibility, classrooms become catalysts for change, students become guardians of the Earth, and hope for a sustainable future becomes a reality. The future of the planet begins with the minds we educate today.