

ENVIRONMENTAL SCIENCE LEARNING OBJECTIVES

I. Students, through the inquiry process, demonstrate the ability to design, conduct, evaluate, and communicate results and reasonable conclusions of scientific investigations.

1. The learner will apply the scientific method to analyze current environmental issues.

II. Students, through the inquiry process, demonstrate knowledge of properties, forms, changes, and interactions of physical and chemical systems. *None purposefully written for this standard for Environmental Science*

III. Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process of diversity of life, and how living organisms interact with each other and their environment.

2. The learner will have a general understanding and knowledge of the flora/fauna ecosystems of our region.
3. The learner will understand the relationships between biosphere, ecosystem, and species.
4. The learner will understand current population dynamics and its impacts on resources.
5. The learner will apply genetic principles in their understandings of biodiversity and ecology.
6. The learner will understand the biotic and abiotic components of an ecosystem.
7. The learner will understand the components of both terrestrial and aquatic ecosystems.
8. The learner will describe the four major cycles (water, nitrogen, phosphorous and carbon dioxide/oxygen) and understand how they apply to ecosystem sustainability.
9. The learner will understand the role of natural forces on ecosystems.
10. The learner will understand basic principles of ecology (i.e. trophic levels, food webs, energy flow and succession).

IV. Students, through the inquiry process, demonstrate knowledge of composition, structures, processes and interactions of Earth's systems and other objects in space. *. None purposefully written for this standard for Environmental Science*

V. Students, through the inquiry process, understand how scientific knowledge and technological developments impact communities, cultures, and societies.

11. The learner will apply ecological principles to understand the challenges of the following environmental issues: land use, pollution, species preservation, energy, population, and global standards of living.

VI. Students understand historical developments in science and technology.

12. The learner will understand how economics, philosophy, science, culture, values, and education are involved in the establishment of environmental policy.