

Environmental Science

INQUIRY

Process Skills

___ Interpret, display, analyze and draw conclusions from the results of a scientific investigation. *Env-01*

Technological Design

___ Design, test and evaluate a solution for an environmental science related problem based on given criteria. *Env-02*

CONTENT

Life Science

1. Introduction to Environmental Science

___ Define environmental science, list the major fields of study that contribute to it and describe human impact on environmental change. *Env-03*

___ Describe the composition and structure of the Earth. *Env-04*

___ Identify the composition of the Earth's atmosphere, describe how heat is transferred and how it is related to the Greenhouse effect. *Env-05*

___ Name and describe the major processes of the water cycle. *Env-06*

___ Participate in and analyze the results of an environmental project. *Env-07*

2. Fundamental Ecological Principles

___ Trace the flow of energy and the cycling of matter between living systems and the physical environment. *Env-08*

___ Explore the major biomes of the Earth and the biodiversity associated with these biomes. *Env-09*

___ Illustrate that the abundance and distribution of living organisms are limited by available energy and certain forms of matter. *Env-10*

3. Population Dynamics

___ Explain causes of population growth and the impact they have on the planet. *Env-11*

___ Analyze and interpret graphs showing population trends. *Env-12*

4. Water, Air and Land Resources

___ Describe the hydrologic cycle and the distribution of the Earth's water resources. *Env-13*

___ Identify methods of water conservation and ways to prevent its pollution. *Env-14*

___ Analyze factors that contribute to air pollution. *Env-15*

___ Describe ways to protect air resources. *Env-16*

___ Describe ways humans use the land and how that has changed historically. *Env-17*

___ Describe ways to conserve and protect land resources. *Env-18*

5. Mineral and Energy Resources

___ Evaluate the use and status of major renewable and non-renewable resources. *Env-19*

___ Evaluate conservation methods for natural resources. *Env-20*

6. Human Interaction with the Environment

___ Explain how pollution can come from both natural sources and human activities. *Env-21*

___ Give examples of how citizens can affect the environment and environmental policy. *Env-22*

___ Research and report on a project related to alternative energy resources. *Env-23*

CONNECTIONS

Science Practices

___ Demonstrate lab safety procedures and accepted practices of science. *Env-24*

S/T/S (Science, Technology and Society)

___ Describe the contributions of environmental scientists and how community members have affected the environment. *Env-25*

___ Describe occupations related to environmental science. *Env-26*

___ Examine environmental issues in light of scientific and industrial knowledge and relate them to ethical issues. *Env-27*