

SCIENCE CURRICULUM SUMMARY

The purpose of the Science Curriculum Summary is to present an overview of the Environmental Science curriculum. Parents are the intended audience of the Science Curriculum.

UNIFYING THEMES
Analyze and evaluate how natural systems are impacted by humans Use ecosystem models to examine and evaluate natural systems and human impact on them. Analyze environmental phenomena on both local and global scales Evaluate change in natural, physical and manmade systems.

INQUIRY AND DESIGN
Evaluate human interactions with natural systems using scientific processes Make predictions about global systems using research Analyze and describe multi step problems using scientific inquiry Propose and develop solutions to environmental situations

INTRO TO ENVIRONMENTAL SCIENCE
Environmental awareness Environmental decision making Humans and the environment

POLLUTION
Atmosphere Indoor and outdoor air pollution Acid precipitation Noise and light pollution Ozone layer and depletion\Montreal protocol Clean Air Act

CLIMATE
Greenhouse effect Global warming

ECOSYSTEM INTERACITONS
Biodiversity Abiotic and biotic factors Flow of energy Bio-geochemical cycles Succession

LAND BIOMES
Biomes Ecosystem organization

ACQUATIC ECOSYSTEMS
Freshwater ecosystem characteristics Watersheds and wetlands Point and non-point sources of pollution Water quality and quantity Marine ecosystem characteristics Clean water act

POPULATION STUDIES

Ecological relationships
Limiting factors
Carrying capacity
Extinct, endangered, threatened, exotic species
Human population growth

AGRICULTURE AND THE ENVIRONMENT

Soil conservation practices
Integrated pest management
Invasive species
Bioengineered crops

WASTE MANAGEMENT

Solid waste disposal processes
Hazardous/toxic materials
Disposal laws

LAND USE

History of land use (hunter/gatherer, agricultural, industrial)
Land conservation practices
Human land use

RENEWABLE AND NON RENEWABLE RESOURCES

Resources
Demand for resources
Alternative energy
Conservation practices