

Ecological Restoration and The Multiple Intelligences

The multiple intelligence theory, first identified by Howard Gardner, states that people do not possess one static type of intelligence (as can be reflected in an IQ score) but rather at least eight different kinds of intelligence.

This theory implies that different people learn in different ways and that the more we can match people to congenial ways of teaching, learning and assessing, the more likely it is that those people will achieve educational success.

The eight intelligences that have been identified are:

Verbal-Linguistic

Logical Mathematical

Body-Kinesthetic

Musical-Rhythmic

Interpersonal

Intrapersonal

Visual-Spatial

Naturalist

The following page outlines how these intelligences can be well utilized in the process of a schoolyard ecological restoration project.

There are numerous books and articles on Multiple Intelligence Theory. A few are listed below:

[Multiple Intelligences](#) by Howard Gardner

[Multiple Intelligences in the Classroom](#) by Thomas Armstrong

[Seven Ways of Knowing](#), by David Lazear

Verbal-Linguistic

related to words and language, both spoken and written

read historical literature, interview residents, research prior land use, signage, articles for newspapers, public presentations

Visual-Spatial

relies on the sense of sight and being able to visualize an object; ability to create internal mental images

map the site, create a planting design, develop educational signs & brochures, design site experiment, conduct site analysis

Body-Kinesthetic

related to physical movement and knowings/wisdom of the body

prepare the site, collect seed from remnants, lay out site design, grow transplants, controlled burn of restoration

Logical-Mathematical

deductive thinking/reasoning, numbers and the recognition of abstract patterns

develop a species list, seed mix, and project budget, survey existing species, research opportunities

Interpersonal

operates primarily through person-to-person relationships and communication

cooperative/team work throughout entire project, create a planting celebration, neighborhood education, signage

Musical-Rhythmic

based on the recognition of tonal patterns, environmental sounds and a sensitivity to rhythm and beats

create planting celebration, find and perform historical music and dance

Naturalist

ability to discern, identify and classify plants and animals, hears and sees links in nature

create ecosystem design, determine species selection and seed mix, grow transplants, collect seed from remnants, survey existing species

Intrapersonal

relates to inner states of being, self-reflection, awareness of spiritual realities

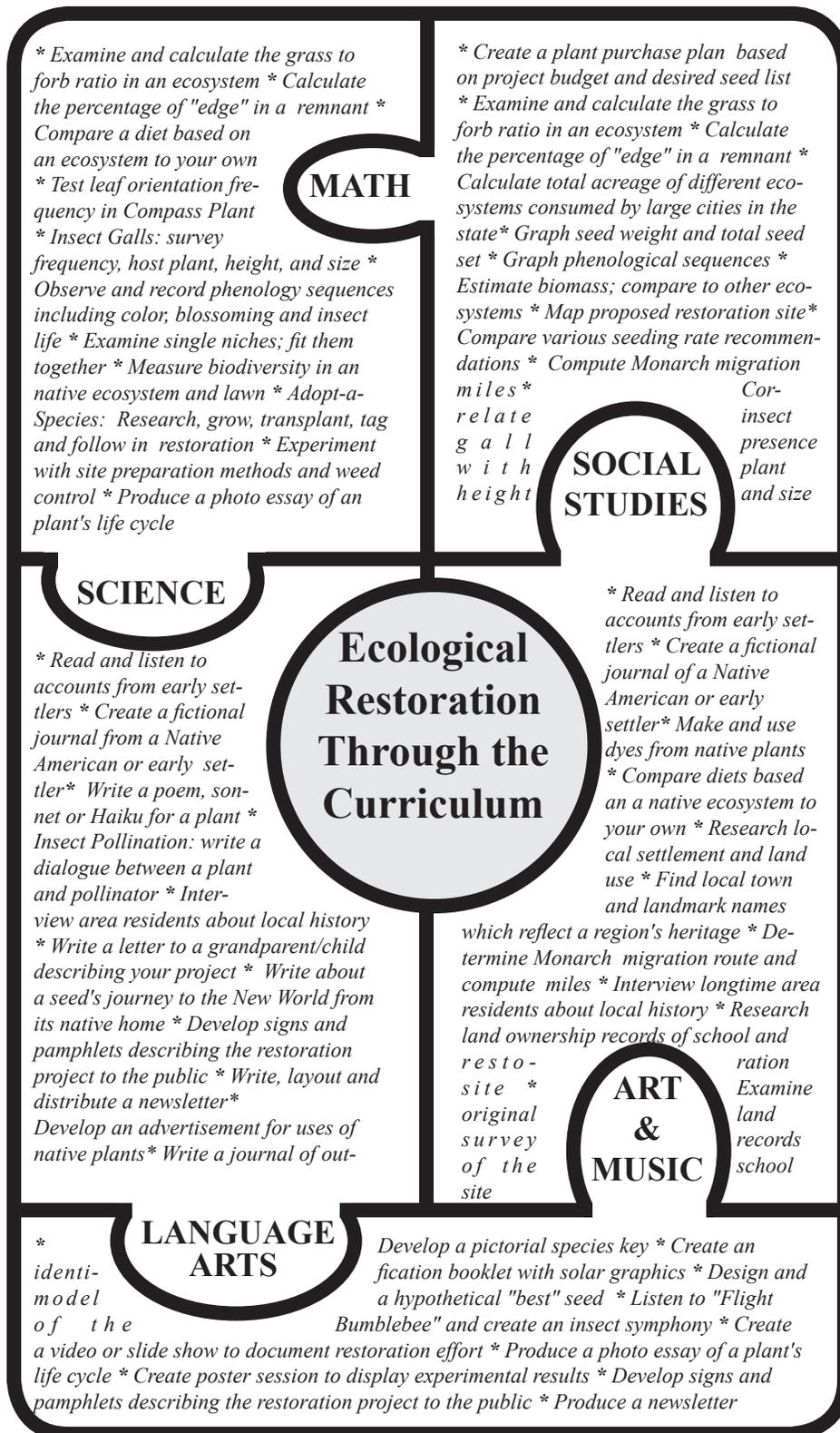
entire process can create sense of purpose, build a personal relationship to the land, opportunity to do something positive for the environment

Ecological Restoration Provides Learning Experiences Throughout the Curriculum



Kindergarten through Fifth Grade

Ecological Restoration Provides Learning Experiences Throughout the Curriculum



Sixth Grade through Twelfth Grade

Activities Associated with Ecological Restoration

Study the Model

- Explore the question, “What is an Ecosystem?”
- Study prairies, wetlands and woodlands
- Visit native habitat gardens

Investigate Site History

- Find the original land survey
- Locate historical maps and diaries
- Determine past vegetation types and land use
- Interview residents

Make Community Connections

- Involve businesses and neighbors
- Develop signs, brochures, videos
- Write a newsletter
- Hold community-wide events

Perform Site Analysis

- Determine current vegetation types and land use
- Note physical and biological characteristics
- Map the site

Plan the Restoration

- Create and layout a design
- Develop a project budget
- Select species
- Determine equipment needs

Prepare the Site

- Prepare the planting bed
- Identify and remove unwanted species

Plant the Site

- Decide on planting technique
- Collect seed and grow transplants
- Hold a planting celebration

Manage the Site

- Monitor plant and animal species
- Conduct burns
- Remove invasive species
- Keep records

Conduct Research

- Make observations
- Ask questions
- Design and conduct experiments
- Analyze data
- Share results

