

# 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*

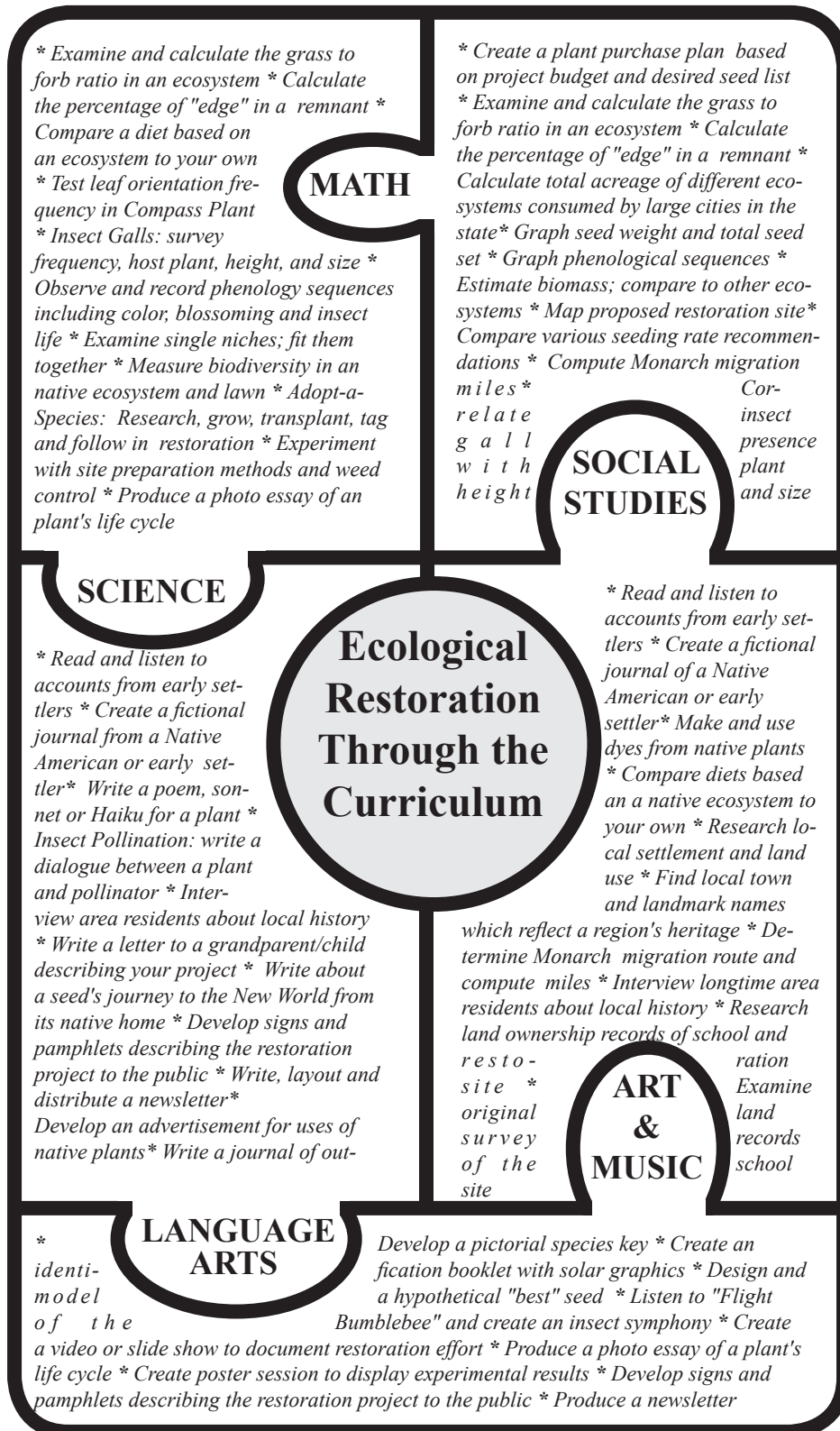
**entire process can create sense of purpose, build a personal relationship to the land, opportunity to do something positive for the environment**

# 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

