



Palouse-Clearwater Environmental Institute

Treasure Chest #1

“Understanding the Work of Nature”

The treasure chest series is a program of the Idaho Museum of Natural History and sponsored by the National Science Foundation. The materials are designed to “enhance understanding and conservation of the biological diversity of the Intermountain West.” The program consists of 3 kits, each with a different focus. The focus of this kit is “Understanding the Work of Nature.”

Lesson Plan 1: “Biowhat?” Designed to teach the meaning of biodiversity and distinguishing characteristics between species.

Activity Description: Discussing species, habitat and genetic diversities students will gain a heightened awareness for the diversity of their immediate surroundings and begin to comprehend the importance of properly functioning natural economy.

Concepts: Classification, observation, analysis, categorization, sampling and communication.

Lesson Plan 2: “Species in the Hood.” Designed to help students understand the role species play in certain habitats.

Activity Description: Students will become acquainted with the diversity of habitat zones in Idaho, their characteristics and the adaptations of species in those habitats.

Concepts: Observation, analysis, questioning, problem solving, creativity and communication.

Lesson Plan 3: “Energy Trail.” Designed to teach students the energy cycle through a natural community.

Activity Description: Students will create an energy pyramid that follows cycle of energy from the sun through the trophic levels, while focusing on the predator/prey interactions.

Concepts: Mathematics, hypothesis development, deduction, analysis, measurement and critical thinking.

Lesson Plan 4: “Linked for Life.” Designed to assist in understanding symbiotic relationships between species in various communities.

Activity Description: Students learn the roles species have within an aspen community, how species are related to each other, and the affects species can have on each other.

Concepts: Analysis, classification, determination of cause and effect relationships, predictions, communication, reading and creativity.

Idaho Science Education Standards Addressed:

I. Unifying Concepts of Science

- Understand theory of evolution
- Understand concepts of form and function

II. Concepts of Scientific Inquiry

- Understand scientific inquiry and develop critical thinking skills

V. Interdependence of Organisms and Biological Change

- Understand theory of biological evolution
- Understand the interdependence of organisms

VI. Matter, Energy and Organization in Living Systems

- Understand the relationship between matter energy and organization to trace matter as it cycles and energy as it flows through living systems and the environment
- Understand the individual behavior of organisms and their interactions on populations and communities as influenced by physiological and environmental factors

IX. Personal and Social Perspectives

- Understand common environmental quality issues, both natural and human induced
- Understand the cause and effects of population change
- Understand the importance of natural resources and the need to manage and conserve them.

To borrow this kit from PCEI, please contact:

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