
KEY CHARACTERISTIC #2 DEPTH



Environmental education materials should foster awareness of the natural and built environment, an understanding of environmental concepts, conditions, and issues, and an awareness of the feelings, values, attitudes, and perceptions at the heart of environmental issues, as appropriate for different developmental levels.

2.1) Awareness. Materials should acknowledge that feelings, experiences, and attitudes shape environmental perceptions and issues.

What to look for:

- As appropriate for the developmental level, opportunities are provided for learners to explore the world around them.
- Activities provide opportunities for experiences that increase learners' awareness of the natural and built environments.
- Materials help learners understand the interdependence of all life forms, including humans (i.e., dependence of human life on the resources of the planet and on a healthful environment).
- Exercises and activities encourage students to identify and express their own positions regarding environmental issues.

2.2) Focus on concepts. Rather than presenting a series of facts, materials should use unifying themes and important concepts.

What to look for:

- Concepts from environmental science fields such as ecology, earth science, chemistry, conservation biology, etc., are presented, as appropriate for the intended developmental level.
- Concepts from social science fields such as economics, anthropology, sociology, history, and political science are presented, as appropriate for the intended developmental level.
- Facts are presented—and vocabulary words introduced and defined—in context and support of the important concepts.
- Ideas are presented logically and are connected throughout the materials, emphasizing a depth of understanding rather than encyclopedic breadth.

- Materials include a clearly articulated conceptual framework that states the concepts to be learned and relates them to each other.

2.3) Concepts in context. Environmental concepts should be set in a context that includes social and economic as well as ecological aspects.

What to look for:

- Environmental issues are explained in terms of specific concepts.
- Historical, ethical, cultural, geographic, economic, and sociopolitical relationships are addressed, as appropriate.
- Learners are offered opportunities to examine multiple perspectives on the issue and to gain an understanding of the complexity of issues, as appropriate for their developmental level.
- Further investigations help learners probe more deeply into the ecological, social, and economic aspects of issues, and their interrelationships.
- Concepts are introduced through experiences relevant to learners' lives.
- Materials help learners to make connections among the concepts.
- Learning is based on students constructing knowledge through research, discussion, and application to gain conceptual understanding.

2.4) Attention to different scales.

Environmental issues should be explored using a variety of scales as appropriate, such as short to long time spans, localized to global effects, and local to international community levels.

What to look for:

- Materials consider communities of different scales. These scales include the local, regional, national, and global levels.

Example: 2.2

Project Learning Tree Pre K-8 Activity Guide: Conceptual Framework

The PLT conceptual framework links concepts from different fields around common themes such as diversity, systems, and patterns of change.

Theme: Diversity

Throughout the world, there is a great diversity of habitats, organisms, societies, technologies, and cultures.

Diversity in Environments

- 1.1 Biological diversity results from the interaction of living and nonliving environmental components such as air, water, climate, and geologic features.
- 1.2 Forests, as well as other ecosystems, contain numerous habitats that support diverse populations of organisms.
- 1.3 The Earth's atmosphere, water, soil, climate, and geology vary from region to region, thus creating a wide diversity of biological communities.

Diversity of Resources and Technologies

- 2.1 Humans use tools and technologies to adapt and alter environments and resources to meet their physical, social, and cultural needs.
- 2.2 Technologies vary from simple hand tools to large-scale and complex machinery, mechanisms, and systems.
- 2.3 Successful technologies are those that are appropriate to the efficient and sustainable use of resources, and to the preservation and enhancement of environmental quality.

Diversity Among and Within Societies and Cultures

- 3.1 Human societies vary ... and inhabit many land forms and climates [around] the world.
- 3.2 Humans ... create differing social, cultural, and economic systems and organizations to meet their physical and spiritual needs.
- 3.3 The standard of living of various peoples ... depend[s] on ... the availability, utilization, and distribution of resources; the government; and culture of its inhabitants.
- 3.4 Natural beauty ... enhances the quality of human life by providing artistic and spiritual inspiration, as well as recreational and intellectual opportunities.

Project Learning Tree Pre K-8 Activity Guide. Washington, D.C.: American Forest Foundation, 1996.

• Local, regional, continental, and global geographic scales are used to help learners understand that issues can be important, widespread, and complex.

• Materials examine issues over a variety of temporal scales so that short-term and long-term problems, actions, and impacts are clear.