

California's Environmental Principles and Concepts

California's Environmental Principles and Concepts (EPCs) highlight the connection between humans and the natural world. They are big ideas that can be used to inform standards-based instruction and fuel student inquiry. Teachers can support environmental literacy by helping students understand and apply the EPCs across academic disciplines and in the real world.

PRINCIPLE I



The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.

- **Concept a.** The goods produced by natural systems are essential to human life and to the functioning of our economies and cultures.
- **Concept b.** The ecosystem services provided by natural systems are essential to human life and to the functioning of our economies and cultures.
- **Concept c.** The quality, quantity and reliability of the goods and ecosystem services provided by natural systems are directly affected by the health of those systems.

PRINCIPLE II



The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human society.

- **Concept a**. Direct and indirect changes to natural systems due to the growth of human populations and their consumption rates influence the geographic extent, composition, biological diversity, and viability of natural systems.
- **Concept b.** Methods used to extract, harvest, transport, and consume natural resources influence the geographic extent, composition, biological diversity, and viability of natural systems.
- **Concept c.** The expansion and operation of human communities influence the geographic extent, composition, biological diversity, and viability of natural systems.
- **Concept d.** The legal, economic, and political systems that govern the use and management of natural systems directly influence the geographic extent, composition, biological diversity, and viability of natural systems.

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PRINCIPLE III



Natural systems proceed through cycles that humans depend on, benefit from, and can alter.

- **Concept a.** Natural systems proceed through cycles and processes that are required for their functioning.
- **Concept b.** Human practices depend on and benefit from the cycles and processes that operate within natural systems.
- **Concept c**. Human practices can alter the cycles and processes that operate within natural systems.

PRINCIPLE IV



- The exchange of matter between natural systems and human societies affects the long-term functioning of both.
 - **Concept a.** The effects of human activities on natural systems are directly related to the quantities of resources consumed and to the quantity and characteristics of the resulting byproducts.
 - **Concept b.** The byproducts of human activity are not readily prevented from entering natural systems and may be beneficial, neutral, or detrimental in their effect.
 - **Concept c**. The capacity of natural systems to adjust to human-caused alterations depends on the nature of the system as well as the scope, scale, and duration of the activity and the nature of its byproducts.

PRINCIPLE V



Decisions affecting resources and natural systems are based on a wide range of considerations and decision-making processes.

- **Concept a.** There is a spectrum of what is considered in making decisions about resources and natural systems and how those factors influence decisions.
- **Concept b.** The process of making decisions about resources and natural systems, and the assessment of social, economic, political, and environmental factors has changed over time.

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