California Science

California's Environmental Principles & Concepts - All Grades

PRINCIPLE I: People Depend on Natural Systems 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. EP&C-1	**1-a** The goods produced by natural systems are essential to human life and to the functioning of our economies and cultures. EP&C-1-A
	1-b The ecosystem services provided by natural systems are essential to human life and to the functioning of our economies and cultures. EP&C-1-B
	1-c That the quality, quantity, and reliability of the goods and ecosystem services provided by natural systems are directly affected by the health of those systems. EP&C-1-C
PRINCIPLE II: People Influence Natural Systems The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies. EP&C-2	**2-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. EP&C-2-A
	2-b Methods used to extract, harvest, transport, and consume natural resources influence the geographic extent, composition, biological diversity, and viability of natural systems. EP&C-2-B
	2-c The expansion and operation of human communities influences the geographic extent, composition, biological diversity, and viability of natural systems. EP&C-2-C
	2-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. EP&C-2-D
PRINCIPLE III: Natural Systems Change in Ways that People Benefit from an **Na** **thi**	**3-a** Natural systems proceed through cycles and processes that are required for their functioning. EP&C-3-A
	Human practices depend upon and benefit from the cycles and processes that operate within natural systems. EP&C-3-B

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humans depend upon, benefit from and can alter. EP&C-3	**3-c** **Human practices can alter the cycles and processes that operate within natural systems.** EP&C-3-C
PRINCIPLE IV: There are no Permanent or Impermeable Boundaries that Prevent Matter from Flowing Between Systems The exchange of matter between natural systems and human societies affects the long- term functioning of both. EP&C-4	**4-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.** EP&C-4-A
	4-b **The byproducts of human activity are not readily prevented from entering natural systems and may be beneficial, neutral, or detrimental in their effect.** EP&C-4-B
	4-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** EP&C-4-C
PRINCIPLE V: Decisions Affecting Resources and Natural Systems are Complex and Involve Many Factors Decisions affecting resources and natural systems are based on a wide range of considerations and decision-making processes. EP&C-5	**5-a** **There is a spectrum of what is considered in making decisions about resources and natural systems and how those factors influence decisions.** EP&C-5-A
	5-b **The process of making decisions about resources and natural systems, and how the assessment of social, economic, political, and environmental factors has changed over time.** EP&C-5-B