Next Generation Science Standards (NGSS) / Washington State Science Learning Standards (WSSLS)

Environmental Education Program lessons support the highlighted standards.

Disciplinary Core Ideas in Physical Science	Disciplinary Core Ideas in Life Science	Disciplinary Core Ideas in Earth and Space Science	Disciplinary Core Ideas in Engineering, Technology and the Application of Science
PS1: Matter and its Interactions	**LS1: From Molecules to Organisms: Structures and Processes**	**ESS1: Earth's Place in the Universe**	**ETS1: Engineering Design**
PS1.A: Structure and Properties of Matter	LS1.A: Structure and Function	ESS1.A: The Universe and Its Stars	ETS1.A: Defining and Delimiting an Engineering Problem
PS1.B: Chemical Reactions	LS1.B: Growth and Development of Organisms	ESS1.B: Earth and the Solar System	ETS1.B: Developing Possible Solutions
PS1.C: Nuclear Processes	LS1.C: Organization for Matter and Energy Flow in Organisms	ESS1.C: The History of Planet Earth	ETS1.C: Optimizing the Design Solution
PS2: Motion and Stability: Forces and Interactions	LS1.D: Information Processing	**ESS2: Earth's Systems**	**ETS2: Links Among Engineering, Technology, Science, and Society**
PS2.A: Forces and Motion	**LS2: Ecosystems: Interactions, Energy, and Dynamics**	ESS2.A: Earth Materials and Systems	ETS2.A: Interdependence of Science, Engineering, and Technology
PS2.B: Types of Interactions	LS2.A: Interdependent Relationships in Ecosystems	ESS2.B: Plate Tectonics and Large-Scale System Interactions	ETS2.B: Influence of Engineering, Technology, and Science on Society and the Natural World
PS2.C: Stability and Instability in Physical Systems	LS2.B: Cycles of Matter and Energy Transfer in Ecosystems	ESS2.C: The Roles of Water in Earth's Surface Processes	
PS3: Energy	LS2.C: Ecosystem Dynamics, Functioning, and Resilience	ESS2.D: Weather and Climate	
PS3.A: Definitions of Energy	LS2.D: Social Interactions and Group Behavior	ESS2.E: Biogeology	
PS3.B: Conservation of Energy and Energy Transfer	**LS3: Heredity: Inheritance and Variation of Traits**	**ESS3: Earth and Human Activity**	
PS3.C: Relationship Between Energy and Forces	LS3.A: Inheritance of Traits	ESS3.A: Natural Resources	
PS3.D: Energy in Chemical Processes and Everyday Life	LS3.B: Variation of Traits	ESS3.B: Natural Hazards	
PS4: Waves and Their Applications in Technologies for Information Transfer	**LS4: Biological Evolution: Unity and Diversity**	ESS3.C: Human Impacts on Earth Systems	
PS4.A: Wave Properties	LS4.A: Evidence of Common Ancestry and Diversity	ESS3.D: Global Climate Change	
PS4.B: Electromagnetic Radiation	LS4.B: Natural Selection		
PS4.C: Information Technologies and Instrumentation	LS4.C: Adaptation		
	LS4.D: Biodiversity and Humans		

Developed by NSTA based on content from the *Framework for K-12 Science Education* and supporting documents for the *May 2012 Public Draft* of the NGSS

Environmental Educators will apply the Crosscutting Concepts and Science and Engineering Practices most applicable to your lessons.

Crosscutting Concepts

Patterns
Observed patterns of forms and events guide organization and classification, and they prompt questions about relationships and the factors that influence them.

Cause and Effect: Mechanism and Explanation
Events have causes, sometimes simple, sometimes multifaceted. A major activity of science is investigations and explaining causal relationships and the mechanisms by which they are mediated. Such mechanisms can then be tested across given contexts and used to predict and explain events in new contexts.

Scale, Proportion, and Quantity
In considering phenomena, it is critical to recognize what is relevant at different measures of size, time, and energy and to recognize how changes in scale, proportion, or quantity affect a system's structure or performance.

Systems and System Models
Defining the system under study-specifying its boundaries and making explicit a model of that system-provides tools for understanding and testing ideas that are applicable throughout science and engineering.

Energy and Matter: Flows, Cycles, and Conservation
Tracking fluxes of energy and matter into, out of, and within systems helps one understand the systems' possibilities and limitations.

Structure and Function
The way in which an object or living thing is shaped and its substructure determine many of its properties and functions.

Stability and Change
For natural and built systems alike, conditions of stability and determinants of rates of change of evolution of a system are critical elements of study.

Science and Engineering Practices

1. Asking Questions (for science) and Defining Problems (for engineering)
2. Developing and Using Models
3. Planning and Carrying Out Investigations
4. Analyzing and Interpreting Data
5. Using Mathematics and Computational Thinking
6. Constructing Explanations (for science) and Designing Solutions (for engineering)
7. Engaging in Argument from Evidence
8. Obtaining, Evaluating, and Communicating Information

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