

Sustainability Curriculum Framework

The following framework outlines critical sustainability themes to integrate into your curriculum.

Each theme, followed by specific examples, emphasizes one key aspect of Second Nature's vision of sustainability. This tool is designed to simplify the complex process of incorporating sustainability content into higher education curricula. By breaking down sustainability into its essential (but inseparable) components, the framework provides content to guide each educator's unique teaching process.

The framework is always under development. We welcome your comments and suggestions for improving its structure and content.

Critical Sustainability Themes

- 1. Scale**
 - time -- the immediate to intergenerational effects of human activity
 - geographic -- the local to global effects of human impact (short- and long-term)
- 2. Human Connections to the Physical and Natural World**
 - humans are a part of nature
 - humans can live in harmony with nature
 - human inventions and activities that mirror natural systems
 - the effects of the physical (i.e., built environment) and the natural environment on human health
 - the relationship of population, consumption, technology and carrying capacity to the biosphere
- 3. Ethics and Values**
 - issues of equity, justice, culture and sustainable development
 - different ways of measuring societal well being (e.g., the concepts of qualitative change (development) and quantitative change (growth))
 - individual and community improvement as important components of economic/social development
 - methods of decision making (e.g., the precautionary principle as well as the principle of scientific certainty)
- 4. How Natural Systems Function**
 - natural laws govern the functioning of the biosphere
 - interdependence and holism (e.g., if part of the system is sick, what is the effect on the whole system?)
 - ecosystems as communities with hierarchies of relationships
 - partnerships, cooperation and competition

5. **Technological and Economic Relationships to Sustainability**
 - technical, scientific and institutional strategies that foster sustainable development
 - energy and natural resource efficiency and conservation
 - shifting from nonrenewable resources (e.g., fossil fuels) to renewable resources
 - prevention and control of pollution and waste
 - design for the environment, industrial ecology and ecologically sustainable design
 - remediation of current environmental problems and preservation of biological diversity

6. **Motivating Environmentally Sustainable Behavior**
 - social, legal and governmental frameworks for guiding environmental management and sustainable development
 - the relationships of population, consumption, culture, social equity and the environment
 - micro- and macroeconomic signals (i.e., prices or taxes that affect environmentally sustainable or unsustainable action)
 - how spirituality and cultural beliefs affect environmentally sustainable behavior

7. **Pedagogical Strategies for Integrating Sustainability**
 - utilization of experiential and service-learning on campus and in the larger community
 - connection of theories that are discussed in class with conditions and situations in the real world, including the hidden curriculum of the campus environment
 - examination of topics from interdisciplinary and systemic perspectives, recognizing the complex interdependence of social, cultural, economic, political, individual and biospheric activity)
 - encouragement of research that supports sustainable economic and technological strategies, promotes energy and resource efficiency and productivity, and mirrors natural systems

Second Nature is a Boston-based national nonprofit organization working to help higher education prepare future professionals for the increasingly complex environmental and social challenges we face. We offer colleges and universities a range of programs, training sessions, one-on-one consulting and resources to make the integration of environmental sustainability thinking "second nature" to higher education.
