

“CURRICULUM FOR THE BIOREGION” INITIATIVE
SUSTAINABILITY LEARNING OUTCOMES¹
DRAFT - JULY 2007

SUSTAINABILITY

Sustainability involves learning to make decisions that provide for the needs of the world's current population without damaging the ability of future generations to provide for themselves. Sustainability encompasses the intertwined ideals of viable economies, equity and justice, and ecological integrity.

The imperative of sustainability is driven by our recognition that the ways humans are using the earth's resources now is not sustainable: human needs are not now being met and all the earth's ecosystems are degrading. The need for sustainable solutions is made more tangible through the exploration of issues such as global warming and climate change, sustainable agriculture and food security, energy use, control and prevention of human disease, water quantity and quality, and pollution and toxins in the environment.

SUSTAINABILITY CONCEPTS OR “BIG IDEAS”

Interconnectedness and interdependence

- Energy and nutrient cycles
- Biodiversity
- Ecosystem integrity
- Nature as model/bio-mimicry
- Carrying capacity and limits
- Healthy social systems depend upon, and are intertwined with healthy economies and ecosystems
- Small actions can lead to large impacts (non-linearity)
- Actions in one place can affect conditions/actions elsewhere

Equity and justice

- Human rights and rights of all living things
- Environmental justice: (Environmental justice recognizes that access to a clean, healthy environment is a fundamental right of all human beings.)
- Basic human needs and social development (human needs for economic resources, food, water and sanitation, shelter, health care, energy, and education).

Global to local perspectives/ or biospheric to bioregional perspectives

- Awareness of both spatial and temporal scales
- Consideration of social and natural systems at the global, regional, and local levels
- Systems thinking in local contexts: “How does your course and the methods or questions in your discipline connect to the systems in the region in which (or about which) you and your students are learning?”

¹ These sustainability “big ideas, skills, and habits of mind” came out of a brainstorming conversation about outcomes for student learning, in which 120 faculty members participated at the Washington Center’s “Teaching for a Sustainable Future” conference in November 2006. At a Washington Center Curriculum Planning Retreat in Spring 2007, an inter-institutional, interdisciplinary faculty working group honed the dozens of suggested outcomes to those presented here. This obviously is a work in progress. Feedback appreciated!

SUSTAINABILITY CONCEPTS OR “BIG IDEAS” (CONTINUED)

Sustainability in practice

[Choosing/measuring/portraying what matters and protecting what matters]

- “Ecological Footprint” and other indicators of human use of resources, human health, community health; (Ecological Footprint as a measurement tool as well as a strategy for reducing resource consumption.)
- Confronting over-consumption
- Accountability: public accountability of business, government, media, and non-profit sector.
- Sustainable economics: the support and development of economies that support quality of life
- “Cradle to cradle” practices: (Instead of designing cradle-to-grave products dumped in landfills at the end of their 'life, cradle-to-cradle systems transforms industry by creating products whose materials are perpetually circulated in closed loops. Includes ‘green building’ design)
- Ecosystem and biodiversity assessment
- Ecological restoration
- Bio-mimicry: (A new science that studies nature’s models and then imitates or takes inspiration from these designs and processes to solve human problems.)
- The precautionary principle (A moral and political principle which states that where an activity raises threats to public health or the integrity of ecosystems, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action.)
- Multi-dimensional planning and problem-solving that takes into account the social, cultural, economic, and ecological dimensions of issues
- Ecological citizenship; creation of positive social change and sustainable economies
- Positive visions of the future. “Creative imagination” can inspire personal and collective commitment

SUSTAINABILITY SKILLS

- Ability to listen and hear w/ intellectual openness, outside of your usual ways of thinking
- Ability to be sensitive to cross-cultural perspectives
- Ability to work collaboratively in groups as an essential communications skill
- Ability to use and apply systems thinking
- Ability to synthesize and connect the dots – as or more important than current emphasis on analysis
- Ability to reflect on one’s values and habits, and to recognize that one’s personal choices can affect sustainability
- Ability to translate understanding to action and commitment; using change agent strategies
- Ability to cope with complexity by examining complex problems, and by hearing other perspectives.
- Skills of observation and empiricism – observing outside your usual way, observing deliberately
- Critical thinking – examining what you know and how you know it
- Ability to practice acts of civic responsibility: taking small, practical steps, walking your talk
- Ability to recognize and evaluate an injustice: moral decision making
- Ability to reflect on knowledge, values, and commitment through a variety of media, including artistic expression

SUSTAINABILITY “HABITS OF MIND”

Respect for Earth’s systems and interconnectedness as the nature of the world

- “Cradle-to-cradle” thought and practice
- Nature as model/bio-mimicry
- Small actions can lead to large impacts
- Actions in one place can affect conditions/actions elsewhere

Civic consciousness in one’s place

- An animated knowledge of place – dynamic and sensory perception
- Attachment to one’s place – intuitive attachment (the often-used term, “sense of place” seems too neutral)
- Sense of citizenship, civic responsibility in one’s place (both social and ecological community)

Shared responsibility for the future

- Understanding of intergenerational responsibility
- Positive vision of desirable future
- Understanding of urgency, that the time to act is now
- Sense that the future does not have to be same as the past

Critical hope

- There is hope: no beginning is too small, no goal too large
- Commitment/motivation – one’s attitude matters
- Imagination of a *collective vision* of a positive future
- Power is everywhere and not limited to those higher on a social ladder
(Rebecca Solnit’s point in her book, *Hope in the Dark*)

Humility

- Respect for all living beings and the non-living world (beyond anthropocentrism)
- Acknowledgement that we have a limited understanding of how things work
- Respect for humans’ place in nature (both positive and negative)
- Respect for the wisdom of other cultures in the world and other cultures in history
- Humility about the term “sustainability” as an evolving idea

An ethic of environmental care