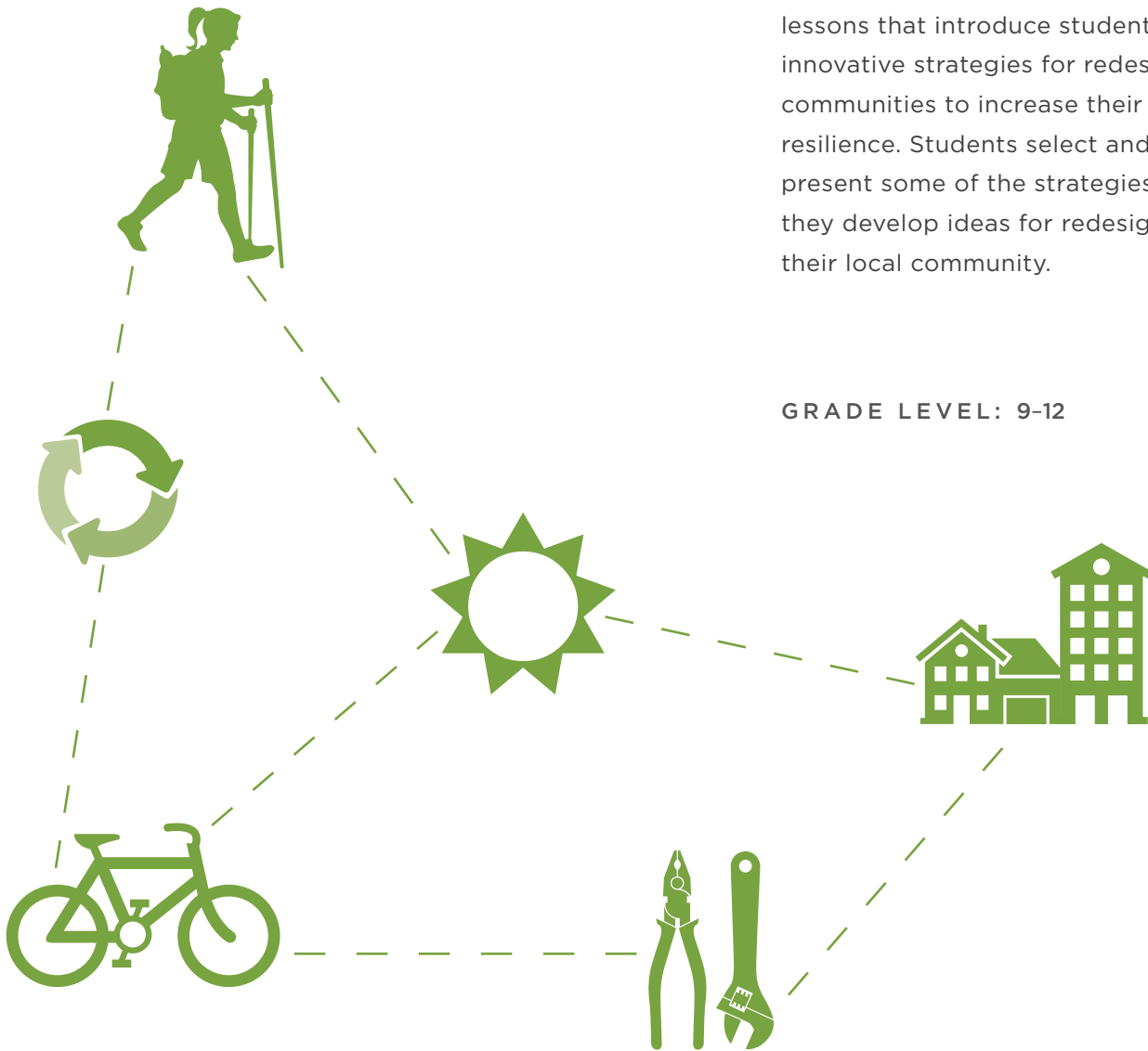


DESIGNING A RESILIENT COMMUNITY

OVERVIEW

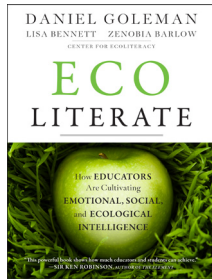
This project includes three lessons that introduce students to innovative strategies for redesigning communities to increase their resilience. Students select and present some of the strategies as they develop ideas for redesigning their local community.

GRADE LEVEL: 9-12





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These lessons relate to "Embracing Sustainability as a Community Practice," one of five practices of emotionally and socially engaged ecoliteracy described in the Center for Ecoliteracy's book *Ecoliterate: How Educators Are Cultivating Emotional, Social, and Ecological Intelligence* (Jossey-Bass, 2012).

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DESIGNING A RESILIENT COMMUNITY

PURPOSE

In these three lessons, students participate in project-based learning over several days as they assess their community's ability to respond to crises that threaten both natural and human systems. Then they develop ideas for how their community could be redesigned to be more resilient.

GRADE LEVEL

9-12

LESSON 1

HOW RESILIENT ARE WE?

BACKGROUND

The teacher introduces the terms *self-reliant* and *resilient*, and poses a few scenarios describing events that could compromise the stability of the local community. Students discuss consequences that each crisis might have on their community and determine how self-reliant and resilient the community would be if faced with such an event.

PREPARATION

Jot down five to eight short scenarios describing a variety of crises that could take place in the local community. Include disasters such as an earthquake, flood, or drought, and other crises such as a gasoline shortage, unsustainable health care costs, bank failures, intentional acts of violence, or industrial accidents. For example, one scenario might say, “The most devastating drought ever recorded in this state’s history has hit our region and shows no signs of ending soon.”

LESSON INTRODUCTION

Ask students these questions:

- If I described a person as *self-reliant*, what would you assume about that person? (For example, he or she might be autonomous, self-confident, resourceful, or enterprising.)
- What word or phrase is an antonym to *self-reliant*? (Accurate answers would be words like dependent, supported, and needy.)

- If I described a person as **resilient**, what would you assume? (He or she might be described as hardy, tough, strong, spirited, flexible, or resourceful.)
- What word or phrase is an antonym to **resilient**? (Appropriate answers would be words like weak, defenseless, fragile, and vulnerable.)
- If I described a community as self-reliant and resilient, what characteristics do you think would be evident in that community? (Appropriate answers might be examples such as having adequate local sources for food, water, or energy.)

CONDUCTING THE LESSON

Engage students in “testing” the self-reliance and resilience of their community by assessing its ability to survive a variety of crises. Explain that you will read a scenario and they will identify the potential impacts on the community that might result from the crisis. Then they will rate their community’s ability to withstand each crisis, on a scale from 0 to 4, with 0 indicating that the community would not survive and 4 indicating that the community is well prepared and would bounce back fairly easily.

Start with the simplest or most familiar crisis and give students plenty of time to identify possible impacts. Encourage them to think about all the systems that drive a community, including transportation, energy, schools, food systems, and recreation. Write their ideas on the board. Before moving on to the next scenario, ask students how they think their community would fare if such a crisis happened, by rating it from 0 to 4.

As the scenarios become less familiar or more complex to students, they may need to do some research to determine some potential consequences and the community’s ability to survive.

DISCUSSION AND WRAP-UP

Explain to the students that people around the globe are striving to strengthen their communities' self-reliance and resilience by redesigning systems such as food, transportation, energy, housing, waste, and decision making. Refer to the Background section above. Invite students to reflect and write about their personal level of self-reliance and resilience and identify ways they could increase them.

LESSON 2

CREATING OUR COMMUNITY PROFILE

BACKGROUND

Students create a profile of their community to establish a baseline understanding of its location, geographic and political boundaries, watershed and waterways, demographics, employment trends, and the various ways the community meets its needs for water, food, energy, and other basics. This is preparation for designing a more resilient community.

PREPARATION

Before the lesson, gather a variety of maps (include links to website maps, if possible) that include the location of the school community. Find maps that represent different levels of scale: city, region, state, country, and world. Also, be prepared to help students find demographic data and other community information on the Web and in local newspapers. Have supplies available for creating displays, such as poster board, large paper, and felt markers, or arrange access to presentation software.

LESSON INTRODUCTION

Explain to students that they will be creating profiles of their community that will serve as baseline information for redesigning the community. They will use maps, websites, and other resources to identify the community's key characteristics.

CONDUCTING THE LESSON

PART A: RESEARCHING OUR COMMUNITY

Ask students to work in pairs and find information that will help them answer the questions below. Advise them to use a variety of sources so they can accurately describe patterns and make generalizations about their community. (If time is limited, pairs can research different questions and consolidate their findings into one community profile.)

- Who lives here? Describe the demographics.
- Provide an overview of daily life. Where do community members live, work, shop, recreate, and congregate?
- Where does the community's water come from? Find out where it originates and the process of moving it from source to tap.
- What are the types of energy used by the community, and where do they originate? Consider food energy as well as gas, solar, and the ultimate sources of local electricity (coal-powered plants, hydro, nuclear, etc.).
- How do people move around? Describe transportation methods and patterns.
- Why do people live here? Identify the predominant reasons people have settled in this community.

PART B: CREATING A COMMUNITY PROFILE

After pairs have collected sufficient data, give them time to create an accurate and attractive display or presentation. Have them share their profiles with the class.

DISCUSSION AND WRAP-UP

After students share data, suggest that they “put a human face” on their profiles by briefly describing community life from the perspective of different members, such as a politician, a homeless person, or a young adult from a minority ethnic group. Using the first-person perspective of community members, ask students to describe “their” experiences living in this community, including where they moved from and when, their quality of life in this community, what they value about their community, and what improvements they would like to see.

LESSON 3

REDESIGNING OUR COMMUNITY

BACKGROUND

Students divide into teams and make recommendations for transforming systems in their community to build self-reliance and resilience.

PREPARATION

Review students' community profiles and the "Redesigning Our Community" pages. Identify topics that may require teams to conduct more research before they can redesign that aspect of their community.

Make copies of the Redesigning Our Community pages. (Optional: Create additional pages that address other topics important in the community.) List the page topics on the board or chart paper. Make the community profiles from Lesson Two accessible for students.

Decide whether you will form teams and assign a topic to each or allow students to create teams and choose topics. Determine the length of time for each student presentation.

LESSON INTRODUCTION

Explain to students that they will work in teams to redesign their community in ways that increase its self-reliance and resilience. Teams will start by referring to their community profiles from Lesson Two—and they may need to do additional research—to determine the current status of each topic in their community.

Inform them that each team will address one of the components, but all should address ways their topic could influence the emotional and social growth of community members.

Refer to the Redesigning Our Community pages and explain that each page describes how one component of a community system could be altered to avert potential crises and minimize the impact of crises should they occur. Some strategies—like changing the way we eat—may not be obvious as effective strategies, yet all affect a community’s resilience.

Form teams of two to four students and distribute to each team its Redesigning Our Community pages. Point to where students will need to conduct more research.

CONDUCTING THE LESSON

PART A: MOVING FROM WHAT IS TO WHAT COULD BE

Assist teams as needed as they review the community profiles, review the current status of their topic in their community, conduct more research if necessary, and brainstorm ideas for redesigning their community. Encourage participation by everyone, and monitor groups to ensure that no one dominates the discussion and no one drops out.

PART B: IDENTIFYING UNINTENDED CONSEQUENCES

After brainstorming ideas, suggest that teams identify possible unintended consequences of each idea. This will help them narrow their recommendations to those that are most sustainable.

PART C: STUDENT PRESENTATIONS

Once teams have determined their recommendations, provide time for them to develop a presentation to the rest of the class. The presentations should include a description of the current status of their topic and a clear set of recommendations with justifications for each. Remind them of the length of time for each presentation.

After each team presentation, allow five minutes for class members to ask questions. Then conduct a class discussion, using questions like these:

- Are there recommendations for one topic that affect the recommendations for another? How can the group address this?
- Are there recommendations that might decrease, rather than increase the community's self-reliance and resilience? How could the community prevent that?
- Would the words or phrases that define self-reliance and resilience generated in Lesson One describe the community now that teams have redesigned it?
- What emotional capacities would community members need to transform their community? (For example, the ability to persevere even in the face of obstacles and setbacks.)
- What social capacities would they need? (For example, the ability to take the perspective of others and manage conflicts peacefully.)
- What ecological capacities would they need? (For example, understanding the ways that nature sustains life.)

DISCUSSION AND WRAP-UP

Encourage the class to share with others their ideas for transforming the community. They may decide to speak to other classes, the board of education,

or the city council. (This may require creating a new presentation that incorporates their final recommendations.)

Ask students what they could do to take action in the future, based on their research and recommendations. Explain the term ***ecological handprint***. While students may be familiar with the term ***ecological footprint*** (a measure of human demand on the Earth's ecosystems), ecological handprint refers to daily actions that positively improve conditions so that we live more sustainably. Tracking our ecological handprint serves as a motivational tool and assists us to become more aware of the constructive actions we can take to reduce our ecological footprint.

Students can take the ecological handprint quiz at <http://www.handsforchange.org> or www.handprinter.org. They can get ideas for effective actions by referring to the article "The Short List: The Most Effective Actions U.S. Households Can Take to Curb Climate Change," by Gerald Gardner and Paul Stern, 2009, <http://www.environmentmagazine.org/Archives/Back%20Issues/September-October%202008/gardner-stern-full.html>. They can see firsthand at <http://zerowastehome.blogspot.com/> how a family whose goal is to produce zero waste lives.

MAKING DECISIONS



How does our community make decisions now? Who is involved in making decisions about our community? How can we redesign our decision-making process so that it supports our goal of resilience?

The processes we employ for making societal decisions greatly influence our ability to withstand crises. Today, many people are discouraged about and disenfranchised from the way our society makes decisions. Some think that powerful corporations have too much influence on government; others think that government is micromanaging the lives of citizens. Both perspectives lament the lack of local decision making and the powerlessness of the average individual. Communities that are striving to become more self-reliant and resilient are creating positive, empowering visions of the future. Examples of these efforts include expecting community members to become well informed and willing to share information and experiences, and trusting them to make good decisions; developing a self-organizing process of making decisions that is open and inclusive of all; and recognizing and addressing the process of inner transformation—personal growth and a stronger connectedness to others—that inevitably accompanies external transformation



PRACTICING TRADITIONS

What traditions are currently practiced in our community? Which ones contribute to its resilience? Are there new traditions that you think would benefit our community?

Traditions often serve as glue that helps hold communities and societies together. They are rituals or beliefs that link the current generation to past generations. Many community traditions focus on holidays and often include time-honored food, music, objects, and behaviors. However, many of these traditions are dying. Sharing food, for example, once served to connect family and friends. Several societal factors have contributed to the loss of these traditions, including industrialization, globalization, and the assimilation or marginalization of many cultural groups. As some communities strive to become more resilient, they are reviving old traditions and creating new ones. Ways of honoring the power of tradition include holding festivals to celebrate communities' historical and cultural roots, gathering to share seasonal meals at each equinox and solstice, and adopting ways of honoring the Earth practiced by those who have lived before in their locales.



REDEFINING WASTE

How much of what we consider to be trash could be reused, recycled, or not purchased in the first place? How can we transform our waste system to decrease the amount we throw away and increase our use of recycled and reused materials? How will these strategies make us more resilient?

Each person living in the United States throws away an average of five pounds of garbage every day. While it's true that we have all become savvier over the past decade about the environmental impact of waste, we have also expanded our use of disposable products and packaging. The distance products travel—from where they were produced to where they are consumed and discarded—has also expanded, requiring more packaging. As communities strive to become more resilient, they alter their waste practices, employing techniques such as composting their food waste, purchasing more durable and repairable products and products made from recycled materials, and buying local goods that require little or no packaging or transportation.



LOCALIZING OUR CLOTHING

What is the typical life cycle of a piece of clothing? How can we alter how we dress in ways that are kinder to the environment? How can we create a system for manufacturing clothing that contributes to our community's resilience?

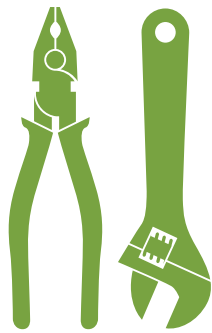
We rarely think about the impact of our clothing on other people and the environment, but it takes a huge toll on both. Until the last 100 years or so, many people made some of their clothing and purchased clothes from local sources. A hundred years or so before that, many Americans grew cotton or raised sheep, wove fiber into cloth, and sewed or knitted clothes for their families. Since the Industrial Revolution, the manufacturing of clothing has taken a toll on the environment at every step in the production process. Most synthetic fabrics are made from petroleum, contributing to the demand for more crude oil and resulting in toxic emissions. Natural fibers such as cotton are conventionally grown using methods that require enormous amounts of pesticides and water. Some people are creating ways to dress in an “eco-friendly” fashion through actions like holding events to trade clothes, purchasing vintage and secondhand clothes, and finding local sources of fabric.



FINDING ALTERNATIVE ENTERTAINMENT AND RECREATION

How have the ways we entertain ourselves affected our health and the health of the Earth? What are some alternative ideas for recreation that are healthy for people and the planet? Are there entertainment and recreational choices that can contribute to the resilience of our community?

Computers, smartphones, social media, and interactive television have radically changed recreation and entertainment in the United States. Much of what we do to relax and take a break from the daily stresses of life has become sedentary—we sit in front of a TV or computer screen playing video games and communicating with others through social media websites. A community's ability to withstand crises is affected by the health of its inhabitants, but recent data show that Americans are gaining weight and are becoming less physically fit. While recreation and entertainment used to mean getting together with other people, many people now seek solo leisure activities, connecting with others through the Internet rather than face-to-face. These trends in entertainment are probably here to stay, but at the same time some people are creating (and re-creating) ways to have fun and build community resilience at the same time by actions such as holding community potlucks and dances, increasing the amount of open space and parks, and organizing group outdoor adventure trips.



RE-SKILLING

What are some local skills that our community would benefit from?
Who could help re-skill people in our community? What skills would you like to develop?

In the not-too-distant past, people practiced many skills that few of us perform today. It was common for people to grow some of their own food, make clothes, build furniture, or make household repairs, and neighbors and friends shared their proficiencies with each other.

There is a resurgence of interest in these skills, sometimes referred to as “re-skilling” or “DIY” (do it yourself). Re-skilling starts by uncovering the hidden talents and lost skills of community members and finding ways to sharpen those abilities to benefit individuals and the community at large. The end result is a community that can meet more of its needs close to home. Re-skilling can take place through a variety of formats such as local re-skilling fairs where experts demonstrate everything from beekeeping to boatbuilding, local apprentice programs, and courses on topics like permaculture and woodworking.



CHANGING OUR FOOD SYSTEM

What food products are produced in our area? Where do community members tend to acquire their food? How can our community increase its consumption of local foods?

Due to urbanization, industrialization, and cultural diasporas, most people have stopped growing food at home. Locally grown food and traditional meals have been replaced with food that is produced by huge farms and factories and transported around the world. This means that food is often harvested before it is ripe so it can survive the long journey from farm to grocery store. The industrial food system causes pollution, requires huge amounts of energy, and often produces food that is laced with pesticides and low in nutritional value. Resilient communities are changing the way they produce food by creating local swapping clubs where neighbors trade backyard produce, installing community gardens, and learning to preserve food through canning and drying.

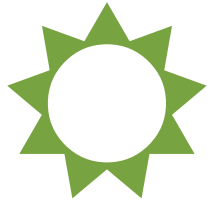


PROTECTING THE COMMUNITY'S WATER

Where does our water come from?
What regional sources of water exist?
How can our community protect the
quantity and quality of its water?

Throughout the world, there has been a shift in perception about water, from a life-giving substance managed by and for the common good to a commodity controlled by multinational corporations. Our water supply is increasingly used for energy production, irrigation, and other industrial processes and commercial uses. These uses diminish the quality of water for public use; in fact, most of today's global population faces polluted water supplies. As the demand for clean, fresh water increases, so will the tension between those who see water as a commodity to be bought and sold and those who do not.

While most people believe that access to clean water is a human right, we have created an infrastructure that does not ensure that right. Communities that are striving to become more resilient are borrowing ideas from the past as well as creating new approaches. For example, they are declaring that local water supplies belong to the commons. They are conserving water by collecting rainwater, constructing gray-water systems for irrigation, and practicing water conservation at every level in the community. And they are developing pricing structures so that the burden of maintaining the infrastructure needed to provide access to water is shared through a fair and just system.



TRANSFORMING ENERGY SOURCES

Where does our energy come from?
What are the primary consumers of oil in our community? How can our community prepare for a world with little or no oil?

Most people are aware that Western society is dependent on oil, coal, and natural gas for generating our energy. All major systems—food, transportation, the manufacturing of goods, and so on—would collapse if these fuels were no longer available. Yet, fossil fuels are becoming increasingly difficult and expensive to extract. As the world becomes more desperate for new sources of fossil fuels, companies lobby to expand exploration and drilling in some of the most geographically and culturally fragile places on the planet. Resilient communities are reducing their dependence on these fuels through strategies such as creating “energy descent” plans to power down their dependence on fossil fuels and switch to renewable energy, transitioning to public transportation and phasing out private cars, and creating local energy systems that don’t rely on centralized distribution systems owned by international corporations.



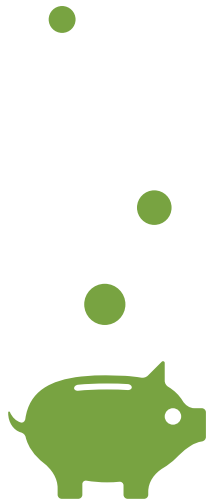
RETHINKING TRANSPORTATION

How do people get around in our community? What alternative modes of transportation are available that would decrease the use of personal vehicles? How can our community create a transportation system that runs on renewable energy?

Currently, transporting people and products accounts for nearly 33 percent of American consumption of petroleum-based fuels, and 60 percent of that total is consumed by personal vehicles. The US, with 5 percent of the world's population, owns 33 percent of its cars. Over the next 50 years the US population is expected to increase from 315 million to 435 million—the equivalent of adding the population of Canada. Continuing to depend on private automobiles will most likely result in unacceptably high levels of pollution, clogged roadways, and skyrocketing fuel costs.

Resilient communities are creating transportation systems that are healthier for people and the environment. Examples include safe bicycle routes, car-share programs, and reducing transport of goods and services by developing local businesses and supporting local agriculture.

SHIFTING OUR RELATIONSHIP WITH MONEY



Where do people in our community tend to earn and spend their money? Are there ways to keep local money circulating locally? How can our community prepare for a major economic crisis?

In a free market system, competition is considered to be the best way to stimulate higher quality and lower prices of goods and services, but profits—and jobs—are often shipped far away while local communities stagnate, and the whole system is vulnerable to global economic disruption or collapse. Localizing the economy by buying local goods and services is a key goal of most communities that strive to increase their resilience. They are also using inventive ideas like creating “sharing networks” in which people share goods and services without money changing hands, and establishing “time banks” where the currency is not money but time. Time bank members identify the goods and services they can offer others, as well as the ones they need, log the time they spend offering goods and services, and use time credits to “buy” goods and services they need from fellow bank members.



CREATING LOCAL JOBS

Where do people work in our community? Who is unemployed? How can our community increase the number and quality of local jobs?

Young adults have been hardest hit by the lack of employment opportunities in the United States and abroad. Worldwide, nearly 75 million people between the ages of 15 and 24 were out of work in 2011, and that age group continues to be three times as likely as older adults to be unemployed. Resilient communities are working to ensure that jobs are available for all who want to work. They are implementing strategies such as researching the goods and services that the community is importing and then providing support to existing small businesses to shift to offering those goods and services locally; establishing cooperatives to operate local business such as bakeries, bike repair shops, home help services, insulation installation, and tailoring; and training young adults in sustainable agriculture so they can care for and manage the local food system.

DESIGNING ALTERNATIVE HOUSING



Who in our community is homeless or has inadequate housing? Who designs and constructs homes in our area? How can local housing improve so that everyone has a place to live that is affordable and Earth-friendly?

Around the world in 2005, there were approximately 100 million people who were homeless and another 1.6 billion people in inadequate housing. We can assume those numbers have grown during the more recent global economic crises and natural disasters, which have together displaced more than one million families. The driving forces of the housing crisis include a growing population of people who cannot afford housing, increasing global trends toward privatization and land speculation, and unplanned and involuntary displacement of people from their homelands. Communities are resisting these forces through a variety of methods, including establishing community land trusts to ensure that everyone has access to affordable housing, creating mixed-use buildings that include homes and businesses, and encouraging shared housing complexes.

KEY ECOLITERATE PRACTICES EXPLORED IN THESE LESSONS

These lessons illustrate **Embracing Sustainability as a Community Practice**, one of five practices of emotionally and socially engaged ecoliteracy described in the Center for Ecoliteracy's book *Ecoliterate: How Educators Are Cultivating Emotional, Social, and Ecological Intelligence* (Jossey-Bass, 2012).

Embracing Sustainability as a Community Practice emerges from knowing that organisms do not exist in isolation. The quality of the web of relationships within any living community determines its collective ability to survive and thrive. By learning about the wondrous ways that plants, animals, and other living things are interdependent, students are inspired to consider the role of interconnectedness within their communities and see the value in strengthening those relationships by thinking and acting cooperatively.

The other four ecoliterate practices, in brief:

DEVELOPING EMPATHY FOR ALL FORMS OF LIFE

Recognizing humans as members of the web of life encourages us to broaden care and compassionate action for other living beings.

MAKING THE INVISIBLE VISIBLE

The impacts of human behavior have expanded exponentially in time, space, and magnitude, making them difficult to fully understand. Discovering tools that reveal those impacts enables us to act in more life-affirming ways.

ANTICIPATING UNINTENDED CONSEQUENCES

Developing a systems perspective helps us better predict the potential implications of our behavior and develop resilience strategies that enable ecosystems and human communities to adapt to unforeseen circumstances.

UNDERSTANDING HOW NATURE SUSTAINS LIFE

Through understanding the processes and principles by which nature has supported life for billions of years, we can learn to design human endeavors for a more hopeful future.

DEVELOPMENTAL CHARACTERISTICS OF EMOTIONAL, SOCIAL, AND ECOLOGICAL INTELLIGENCE APPROPRIATE TO THIS LESSON

We have identified a number of developmental characteristics which the practices described in *Ecoliterate* and these lessons are intended to help foster. Among those corresponding to these lessons' grade levels are the following:

HALLMARKS OF EMOTIONAL INTELLIGENCE

Students in grades 9-12 are able to reflect on and learn from past experiences. They demonstrate the ability to think before acting. Students in this age range can identify their strengths and limitations, and are developing strategies for reinforcing their strengths and overcoming or accommodating their limitations. A sense of self-worth is emerging and students demonstrate perseverance when pursuing goals, despite obstacles and setbacks. They are becoming more able to keep disruptive emotions and impulses in check.

HALLMARKS OF SOCIAL INTELLIGENCE

With the goal of improvement, students in grades 9-12 can reflect on relationships and communication skills with a diversity of peers, family members, and others. They are able to negotiate and manage most conflicts peacefully. They have an interest in becoming aware of their prejudices and overcoming them. They constructively collaborate with others when working toward a goal.

HALLMARKS OF ECOLOGICAL INTELLIGENCE

Students in grades 9–12 are cognizant of ways people work to remedy environmental issues. They demonstrate a foundational understanding of key ecological principles. Students in this age range recognize that many environmental concerns appear invisible because they are too far away in time or space. Students are capable of identifying unintended environmental consequences of decisions and actions in the past and can forecast some possible unintended consequences of current thinking. They recognize that some populations are more affected by particular environmental issues, due to their location, socioeconomic level, and employment. Students can also feel a deep connection with nature on a personal or spiritual level.

RESOURCES

Real-World Examples for “Designing a Resilient Community”

VIDEOS

INTENTIONAL AND SUSTAINABLE COMMUNITIES

- “Dancing Rabbit Ecovillage: An Introduction.” <http://www.youtube.com/watch?v=iobyEjIV9AM>

Located in northeast Missouri, Dancing Rabbit Ecovillage is an intentional community devoted to ecological sustainability. This video describes how members strive to lead sustainable and more eco-conscious lives in this off-the-grid ecovillage community. (3:43 minutes)

- “Terramor Village: One of the Largest Sustainable Communities in the Country.” <http://www.youtube.com/watch?v=D3IaqUQUpul>

A designer for this Orange County, California, subdivision talks about some of its sustainability features, such as solar, recycled water, and live/work capabilities. (5:16 minutes)

SUSTAINABLE CITIES

- “Eco-City Hamburg.” <http://www.youtube.com/watch?v=GHQgzk6ZrjQ>

Citizens of the industrial German city of Hamburg, which was designated European Green Capital 2011 by the EU Commission, share the city’s plans for how it will cut carbon emissions by 40 percent by 2020. (5:05 minutes)

- “The City of Stockholm – the Sustainable City.” <http://www.youtube.com/watch?v=yuMuMnvcYvA>

Stockholm was the first city to be designated a European Green Capital, in

2010, by the EU Commission, for leading the way toward environmentally friendly urban living, including underground recycling chutes and transportation options. (3:59 minutes)

TRANSITION TOWNS

- “New Zealand – Raglan.” http://www.youtube.com/watch?v=6Fg_PJatE7A

A TV news story about the town of Raglan, New Zealand, where residents are looking at how to be more energy independent, including how to deal with feeding themselves, transportation, waste, and affordable and renewable housing. (5:10 minutes)

- “Start Something Together.” <http://www.youtube.com/watch?v=A9-pOxY9RzY>

Neighborhood groups in Totnes, UK, explain how the first Transition Town started a community orchard, clothes swaps, gardening days, film club, and other schemes—saving money, cutting carbon, and strengthening their neighborhoods. (6:47 minutes)

- “Transition Japan: Interview with Hide Enomoto.” <http://www.youtube.com/watch?v=sOplAIBvMkO>

Business coach Hide Enomoto talks about the efforts of Fujino, Japan, where residents are working on resilience issues, including creating a local currency and a local power company, and about the impact of Japan’s March 2011 disasters (earthquake, tsunamis, and resulting nuclear catastrophe) on the transition movement. (10:08 minutes)

- “Transition Town Kingston.” <http://www.youtube.com/watch?v=O3gFd6iiYJw>

Residents of Kingston, UK, discuss the various achievements of Transition Town Kingston in the areas of business, food, energy, and schools—from starting a food co-op to teaching each other basic skills like sewing on a button. (9:28 minutes)

WEBSITES

INTENTIONAL AND SUSTAINABLE COMMUNITIES

- “Ecovillage Findhorn: New Frontiers for Sustainability.” <http://www.ecovillagefindhorn.com/index.php>

Findhorn Ecovillage, UK, is an intentional community that aims to synthesize the best current thinking on sustainable human settlements. The website describes a number of the community’s initiatives, such as houses built with local stone and straw bales, a “Living Machine” sewage treatment facility, and electricity-generating wind turbines.

- “ZEGG Community.” <http://www.zegg.de/en/zegg-community.html>

ZEGG is an intentional community and conference center southwest of Berlin, Germany, that designs and implements models for a socially and ecologically sustainable way of living. Its full German name translates as the “Center for Experimental Culture Design.” The website describes some of ZEGG’s ecological and social practices.

- “Ecovillage Directory — List of Ecovillages.” <http://directory.ic.org/records/ecovillages.php>

This web page lists hundreds of names and links to intentional communities worldwide with a strong ecological or sustainability focus.

SUSTAINABLE CITIES

- “Melbourne’s Sustainability Journey.” <http://www.melbourne.vic.gov.au/Sustainability/Pages/Overview.aspx>.

The second most populous city in Australia has the goal of being carbon neutral by 2020. Over the past 15 years, it has improved public transportation and implemented car-free zones and streets, among other things.

- “Sustainable City.” Wikipedia. http://en.wikipedia.org/wiki/Sustainable_city

This webpage contains a nice overview of the various initiatives cities can take to become more sustainable.

- “Sustainable Cities Collective.” <http://sustainablecitiescollective.com/>

An online community providing content and resources for making cities smarter and greener in the twenty-first century, including aggregated articles on a number of sustainability topics.

TRANSITION TOWNS

- “Kirkbymoorside Environment Group.” <http://www.kms-environmentgroup.org.uk/>

The town of Kirkbymoorside, UK, is engaged in a number of different activities to be more resilient, such as growing food, education, local economy, waste and recycling, and energy and building.

- “Transition Network.” <http://www.transitionnetwork.org>

This website supports Transition Towns and other community-led responses to climate change and shrinking supplies of cheap energy, with the aim of building resilience and happiness. It includes a number of examples of initiatives and resources.

For additional Center for Ecoliteracy resources for designing resilient communities, see <http://www.ecoliteracy.org/downloads/designing-resilient-community>.



ABOUT THE CENTER FOR ECOLITERACY

The Center for Ecoliteracy is an internationally recognized leader in systems change innovations in education for sustainable living. Since 1995, the Center has engaged with thousands of educators from across the United States and six continents. The Center offers publications, seminars, academic program audits, coaching for teaching and learning, in-depth curriculum development, keynote presentations, and technical assistance. Books authored or coauthored by the Center for Ecoliteracy include *Ecoliterate: How Educators Are Cultivating Emotional, Social, and Ecological Intelligence* (Jossey-Bass, 2012); *Smart by Nature: Schooling for Sustainability* (Watershed Media, 2009); and *Ecological Literacy: Educating Our Children for a Sustainable World* (Sierra Club Books, 2005).

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