

Looks COUNT *for* COMMUNITIES

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Our school is located in a small village (pop. 1,081) in rural Michigan. The village was first settled in the 1870s in response to the big copper boom that continued until 1967. Many of the buildings that line the main street are made of locally quarried sandstone, with ornamental detail reminiscent of the fine craftsmanship of an earlier era.

While the potential for explosive growth in our town may be slight; the potential for thoughtless, helter-skelter, mismatched growth, similar to what is occurring in communities all over the United States, is great. Because of this, I thought a unit on community planning and the visual environment would be an excellent way to engage my students in a real-world issue that was relevant to their lives, while at the same time addressing social studies, language arts, and science content standards. How and where community growth occurs, and what it looks like, impacts a student's quality of life and the environmental and economic landscape in which they live. Identifying and

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measuring changes to the environment as a result of community growth and sprawl, and suggesting ways to minimize environmental impacts, was an important goal. Using the Looks Count!—Community Planning and the Visual Environment curriculum as the basis, I developed a unit of study that was applicable for my students. The curriculum is available online at no charge and is easily adapted for schools in a variety of community settings (see Resources).



Students' redesign buildings in their community.

An interdisciplinary exploration

To kick off the unit, I wanted to motivate my students to consider what they valued in their community, so I posed the question, “What would the perfect community be like?” The students had to describe their “ideal” community and then draw a detailed picture of it in their journals using colored pencils. I then asked students to share their written descriptions. As one can imagine, most students’ ideal communities were filled with chain clothing stores and fast-food restaurants, places my students rarely experience except on sporadic visits to distant urban areas. We then discussed where we would put these new businesses if they were to come to our town, and what impact new fast-food restaurants and discount stores might have on the local cafes, pharmacy, and hardware stores. We also discussed how this would change the historic character of our town. At the end of this discussion, I again asked students to describe their ideal community in their journals and to explain how and why their thinking had changed.

I teamed with the social studies teacher to explore the visual landscape of the town’s past. In small groups, students read several booklets describing the history of the town and the surrounding area. They took notes on key events, prominent citizens, and significant contributions. Students conducted research to familiarize themselves with their community’s history and to recognize past residents who contributed to its creation and growth. Research resources for this portion of the project will vary depending on your location.

Next, we created a community scavenger hunt so that students could engage in direct data gathering from primary sources—their own observations, deductions, inferences, and personal interviews. We set the students loose on the town to discover interesting facts about the community for themselves. For our scavenger hunt, the students were given one question at a time that they had to answer before returning

to us, the teachers to receive the next question. (See an example of the questions we created for our town in the online version of this article, available at www.nsta.org.) This method of giving out only one question at a time helped us keep track of the students’ progress, and required them to check-in with us on a regular basis. While a scavenger hunt may sound like a management headache, we have never had any problems in the several years that we’ve done this

activity. First of all, students with behavior problems are not allowed to participate. All students must earn the right to participate. Prior to the scavenger hunt day, make sure you clear the details with the administration and send home permission slips to the parents. Several teachers and/or parent volunteers also accompany students into the city to provide supervision. Student groups (of four) are required to check

FIGURE 1 Across these United States

Rate each landscape on a scale of 1–5 (1 = dislike strongly, 5 = like very much) that best describes how you feel about the image shown on each postcard. Be sure you record your response in the correct row. Remember, you may not be starting at postcard #1.

1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	
11.		12.	



Questions

1. Which landscape is most like your own?
2. Which landscape do you like best? Why?
3. Which landscape do you like least? Why?

in with a supervisor every 15 minutes. We usually spend about two hours out of class working on this, but your time may vary depending on your location. If your class is visiting a more urban environment, establish boundaries ahead of time or make the hunt a homework activity for students to do with parental supervision.

In addition to uncovering answers to our scavenger hunt questions, the supervisors had the school's digital camera, which the students rotated to photograph buildings that they found visually attractive or unattractive. As the class learned more about the buildings and people who had lived and worked in the community over the past one hundred years, we began to hear comments like, "The historical buildings and monuments remind us of what we have accomplished—it's important to preserve them" and "Our old buildings make our town unique."

Next, students read an article from *Junior Scholastic* titled, "Miles to Nowhere," to learn about suburban sprawl (any article on growth and sprawl may be substituted). This was a particularly powerful lesson because students began to make connections between the type and location of development, and the potential visual and environmental consequences. Lively discussion ensued concerning the loss of family farms and valuable open space. Students also viewed the videos *Back to the Future: Designs for Walkable Neighborhoods* produced by Citizens For A Better Environment and *Community of Choices* by the Dunn Foundation (see Resources) and discussed characteristics of traditional downtowns versus suburban or sprawl areas. Together, we made a list of pros and cons on the board for each type of community design. Each student was asked to write in their journals during their social studies class about how they would design our town if the population increased five-fold. The journals were

FIGURE 2 Book reviews

What's the Message?

Student name: _____ Period: _____
 Book title: _____ Author: _____

1. Describe the visual environment in the book (the setting).
2. What is the book's message?
3. Describe what is happens in the book using vocabulary words in your description.
4. What would you change about this book? Why?

checked after each assignment and reviewed once per week to see that all entries were completed.

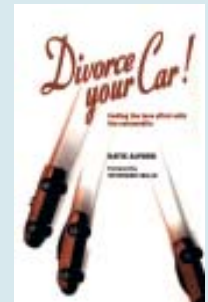
Students engaged in the Viewfinders' activity, "Across These United States," (see Resources) where they compared twelve postcards of a variety of landscapes (i.e. seashore, desert, mangrove swamp, rolling farmland, urban center, small village, sprawl) from across the U.S. to discover that some landscape components, such as plant and animal life, are specific to the topography and climate of a region while others, such as suburban sprawl, are generic across the country. They were given a data table for recording their personal evaluation of each photo on a scale of 1–5 (1 = strongly dislikes, 5 = strongly likes), and then all of the responses were tallied as a group for comparison and class discussion (see Figure 1). Students then choose one photo to write about in their journals describing why they thought most people would either strongly like or dislike the photo.

Students' realized the importance of historical preservation and the science behind community planning.



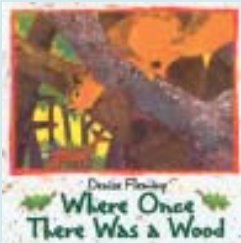
Reading resources

- *Divorce Your Car* by Katie Alvord—In spite of America’s enduring love with the automobile, there have always been those who have said it wouldn’t last! Or at least there have been those who have suggested that it shouldn’t last. Alvord traces the history of America’s dependency on the automobile and details why we should reconsider the relationship. The reasons include pollution from auto emissions and oil spills, the expense of car ownership and its hidden inconveniences. She then examines substitutes for driving, such as walking, bicycling, carpooling, public transit, alternative fuels, telephone, and e-mail.



- *Window* by Jeannie Baker—Chronicles the events and changes in a young boy’s life and in his environment, from baby to adult, through wordless scenes observed from the window of his bedroom.

- *The Empty Lot* by Dale H. Fife—A man who is about to sell an empty lot to developers discovers that the plot of land is far from empty. The sights and sounds of nature’s tenants convince the man to save the lot from the bulldozers. The man finds that the area already has plenty of tenants: a tree is an apartment house for birds; frogs and insects share the stream; children have built a tree house. The man changes his sign to: “Occupied Lot. P.S. Every square inch in use.”

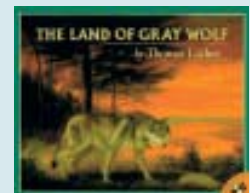


- *Where Once There Was a Wood* by Denise Fleming—Examines the many forms of wildlife that can be displaced if their environment is destroyed by development and discusses how communities and schools can provide spaces for them to live. Pheasants, red fox, raccoons, great horned owl, and other animals are brought to life through lyrical text and rich, exuberant art.

- *Community of Choices* (video), a component of *ViewFinders Too: Exploring Community Appearance*—Illustrates how planning is the key to protecting and enhancing the natural, cultural, and historic characteristics of a community.

- *From Dawn to Dusk* by Natalie Kinsey-Warnock—Chopping wood in the fall, hauling sap in buckets in the spring, and weeding and hoeing in the summer—that is life on a farm in the North. It is also seven months of sloppy, impossible mud and snow season, and annoying bugs all summer-long. Why would anyone miss this place? A love of life and a love of place shine through in the rich prose, illustrated with evocative woodcuts. At the story’s end, readers from cities, towns, and country will ask themselves, “What would we miss most about our home?”

- *The Land of Gray Wolf* by Thomas Locker—A young boy, Running Deer, and his small Native American tribe, struggle to preserve their land while holding onto their traditional way of life in a turbulent modern world.



- *Before and After: A Book of Nature Timescapes* by Jan Thornhill—As time passes, all living things change. They move, grow, and change appearance. Some changes are easy to see, and others you really have to look for. Each special place in this book, from all over the world, is shown twice: before, and then after time has passed. Two additional questions may be asked: “How do humans affect the rate and types of changes to nature timescapes?” and “How do human communities change?”

The Viewfinders’ activity takes about 60 minutes, or one class period. Students work individually and their responses are checked (in journals) to make sure they are thoughtful and complete. I then provide my students with a journal prompt to explore their thoughts on what they value in their community and to describe the natural and community characteristics that define their own sense of place.

In the language arts class, students read and critiqued at least two books on the topic of community growth and how

it impacts biodiversity, wildlife habitat, and the lives of community residents (see sidebar above). Students identified what message the author and illustrator were trying to convey, described and compared the community characteristics portrayed in each book, and identified at least two different perspectives presented on the natural environment, community appearance, and sense of place. Over two class periods, students discussed two of the books listed in small groups and then responded to the questions on the form individually (see Figure 2 and sidebar).

FIGURE 3 Business plan guidelines

You will spend the next few weeks researching and developing a business plan for a fictitious business in the local community. Your completed plan should contain all of the following elements:

Cover page**Mission statement**

- Explanation of what service or good you are selling
- The days of the week and times your business will be open.

Market research and analysis

- Why will the business be successful? Support with evidence.

Market range and justification

- To whom will you sell your product or service? Where? Why?

Start-up costs

- List items you only need to buy once in order to start your business.

Operating costs

- Fixed overhead costs—costs that stay constant regardless of how much business you do.
- Variable costs—costs that vary depending upon how much product you produce.

Price structure

- List of how much you will charge and reasons why.

Profit margin

- How much does it cost in materials & labor to produce one item?
- How many items per month must be produced and sold to break even? (= Overhead divided by profit per item.)

Quality control

- How will you handle dissatisfied customers? How will you maintain consistency in good/services provided?

Advertising

- Include business cards, building signs, advertisements, radio commercials, and other promotional materials.

Building design

- Include a drawing of the building in town to be used for your new business. Be sure to describe how you will enhance this building and its site in order to attract customers. Will your business have a particular theme?

Environmental sustainability

- What will you do to incorporate environmental sustainability principles into your business (using recycled materials, recycling wastes, conserving water, etc.)?

Science lessons and extensions

In conjunction with the language arts and social studies lessons, students participated in a variety of extension activities in their science classes that supported the unit's objectives:

- conducting stream monitoring and comparing the water quality and diversity of organisms in the local river to assess changes in the water quality and stream habitat between the undisturbed headwaters above the town and the river's mouth near the village limits;
- comparing the biodiversity of an undisturbed rural area outside of town, with a park and a parking lot in town;
- determining and comparing changes in runoff between forest, cropland, suburban area, and pavement (available from "Color Me A Watershed," see Resources);
- calculating and comparing the time and energy costs of having to drive everywhere, versus the ability to walk to most places in their town (see *Divorce Your Car* by Katie Alvord in sidebar);
- assessing the effects of different land use scenarios on the habitat of wolves in our area ("Changing the Land," see Resources);
- developing a map of where exotic species, such as spotted knapweed and purple loosestrife are found in the village, and developing a hypothesis to explain the spread of exotic species; and
- comparing the "ecological footprint" for a typical rural, suburban, and urban resident (see Resources).

Prior to tackling the final project, students viewed a slide show or used the guidebook, *Design Guidelines to Enhance Community Appearance* (see Resources), to illustrate some of the choices communities have with growth and design, such as: size and location of signs; landscaping; historic building renovation and adaptive reuse; whether to allow typical franchise architecture; how to provide for pedestrian accessibility; parking lot size and design; burying utility wires and disguising cellular towers; as well

as, protection of open space, unique habitats, and attractive views.

Culminating project

For the final project in the unit, student groups selected one of their photographs of an unattractive building to "adopt" for renovation, both in



terms of its appearance and its use. Their assignment was to transform a run-down, neglected building (and its immediate surroundings) into a business that they believed would best suit the community, blend with the streetscape, and be financially feasible. The students had to research and write “renovation” business proposals for their selected building, including a mission statement, marketing plan, community assessment and liability analysis, and a sketch of the proposed visual appearance of their building (see Figure 3 for guidelines). Students printed out an 8 x 11-in digital photo of their building and placed a piece of tracing paper over it. Students traced the original building onto the tracing paper, omitting any features that they wanted to “remove,” and adding new features such as additional windows, changing the exterior building material and color, landscaping, street furniture, etc. This activity can be completed in conjunction with art classes.

The students’ work was so impressive, we wanted to share it with their parents and the community, so we arranged a parents’ night where each student group presented their business plan and proposed building design. Some local property owners were so enthusiastic about the proposed visual enhancements to their buildings that they requested copies of the drawings from the students.

Across the standards

This unit easily met our instructional goals for language arts and social studies and the *National Science Education Standards* for:

- language arts—students wrote in different genres, including technical, creative, and business writing; learned to communicate information accurately and effectively and demonstrate their expressive ability by creating oral, written, and visual texts that enlighten and engage an audience; demonstrated their understanding of the complexity of issues and investigated important problems using a variety of resources, including technology, to explore and create texts;
- social studies—describe the political processes used to make decisions, identify human/environment interactions, conduct investigations, identify and analyze issues, engage peers in constructive conversation about matters of public concern; persuasive writing, and considering the effects of an individual’s actions on other people; and
- science—develop student abilities needed to do scientific inquiry, examine the number of organisms that an ecosystem can support, describe causes of environmental deg-

radation and effects of overpopulation, follow the path of water through the hydrosphere to the ocean.

Closing the unit

As our unit came to a close, I observed that students preferred:

- living in a walkable downtown to a sprawling suburban area,
- historic architecture to conventional franchise building designs where all towns start to look alike,
- that careful attention be taken to maintain the original architecture, and new buildings should be designed to fit in with the historic look of the village,
- that any new stores or developments that move into the village use the vacant buildings already available before building new ones,
- buying products and services available locally versus buying products and services outside the town and region in order to support local family businesses,
- to preserve some undeveloped areas for public recreational use, attractive views, and open space, and
- aesthetically pleasing areas that are more attractive to both community residents and visitors.

By engaging in this unit, students developed a better understanding of their community’s history, enhanced appreciation for significant contributors to the town’s early growth and development, identified mechanisms for measuring the effects of new growth and development on the environment, and planned for new growth that would protect the town’s visual character while providing economic growth. ■

Acknowledgement

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Resources

Looks Count! curriculum— www.wupcenter.mtu.edu
 Ecological footprint calculator—<http://www.earthday.net/footprint/index.asp>
Back to the Future: Designs for Walkable Neighborhoods produced by Citizens For A Better Environment—www.walkable.org/order.htm
Viewfinders: A Visual Environmental Literacy Curriculum by the Dunn Foundation—www.dunnfoundation.org/EDU-VF.HTM
 “Color Me a Watershed,” Project WET—www.projectwet.org
 “Changing the Land (Timber Wolf)” activity from *Wisconsin EE News*—Contact Al Stenstrup (stensa@dnr.state.wi.us) to request a copy
 Design Guidelines to Enhance Community Appearance—www.wupcenter.mtu.edu