2nd Grade Geography, Humans, and Environment Inquiry

How Do We Shape Our Environment?

New York City in 1609 and 2009. Image courtesy Markley Boyer, Mannahatta Project/Wildlife Conservation Society. [Link to image](https://habitatthegame.files.wordpress.com/2014/05/spuytenduyvil_split.jpg)

Supporting Questions

1. How do we modify our environment over time?
2. How do we use land in different ways to shape our community?
3. How does our use of land improve or harm our community?
4. How has a local development improved or harmed our community?
# 2nd Grade Geography, Humans, and Environment Inquiry

## How Do We Shape Our Environment?

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staging the Question</strong></td>
<td>Watch a time-lapse video of a city being built and discuss what is changing and why.</td>
</tr>
</tbody>
</table>

### Supporting Question 1
**Understand**

How do we modify our environment over time?

**Formative Performance Task**
Complete a graphic organizer demonstrating how people have modified the environment of a location in New York State.

**Featured Sources**
**Source A:** Image bank: New York City in 1609 versus 2009

### Supporting Question 2
**Understand**

How do we use land in different ways to shape our community?

**Formative Performance Task**
Create a community map classifying land as residential, industrial, commercial, or recreational.

**Featured Sources**
**Source A:** Image bank: Various uses of land  **Source B:** Google Maps

### Supporting Question 3
**Assess**

How does our use of land improve or harm our community?

**Formative Performance Task**
Complete a T-chart demonstrating the pros and cons of building the Tappan Zee Bridge.

**Featured Sources**
**Source A:** Image bank: Historic and current images of the Tappan Zee Bridge  **Source B:** Tappan Zee Bridge: Life in Rockland before the Span

### Supporting Question 4
**Act**

**Research Opportunity:** How has a local development improved or harmed our community?

**Formative Performance Task**
Create a group pictorial essay demonstrating how a local development has helped or harmed the community, and invite local officials to class.

**Featured Sources**
**Source A:** Teacher- and student-generated sources on a local community-development project

### Summative Performance Task
**ARGUMENT** How do we shape our environment? Construct an argument supported by evidence that addresses how we shape our environment and/or are shaped by our environment.
**Overview**

**Inquiry Description**

This inquiry explores how communities develop and sustain themselves by examining the positive and negative impacts of development on community environments. In considering the idea that communities grow and change over time, students develop an argument with evidence that answers the compelling question “How do we shape our environment?”

This inquiry embeds the Taking Informed Action sequence through the formative performance tasks. The *understand* element is developed through Supporting Questions 1 and 2 while the *assess* element is represented in Supporting Question 3. The *act* piece, the development of a pictorial collage that students then invite local officials to view and discuss, is represented in Supporting Question 4.

In addition to the Key Idea expressed earlier, this inquiry reflects the following Conceptual Understandings:

- **(2.5b)** The location of physical features and natural resources often affects where people settle and may affect how those people sustain themselves.
- **(2.5c)** Humans modify the environment of their communities through housing, transportation systems, schools, marketplaces, and recreation areas.

**Structure of the Inquiry**

In addressing the compelling question “How do we shape our environment?,” students work through a series of supporting questions, formative performance tasks, and featured sources in order to construct an argument with evidence and counterevidence from a variety of sources.

**Staging the Inquiry**

To launch this inquiry, students can view a time-lapse video [https://www.youtube.com/watch?v=EBG5VGMoAIM](https://www.youtube.com/watch?v=EBG5VGMoAIM) of the growth of a city and observe the changes that occur (e.g., the building of new roads, houses, and commercial structures) while discussing the potential impact of these changes.
Supporting Question 1

The first supporting question—“How do we modify our environment over time?”—grounds the inquiry by establishing the concept that humans modify and adapt their environments by building and developing housing structures, transportation systems, marketplaces, and recreational areas. The featured source, a split image depicting Manhattan before European settlement versus present day, is a visual representation of these kinds of changes and provides an opportunity for students to imagine the kinds of environmental changes that communities undergo. In the first formative performance task, students complete a graphic organizer documenting the developments they observe in the community by comparing and contrasting the two images.

Supporting Question 2

The second supporting question—“How do we use land in different ways to shape our community?”—requires students to examine how land is used in communities using the classifications of residential, commercial, industrial, and recreational. The first featured source, an image bank depicting these classifications, helps students see examples of each form of land use. The second featured source, Google Maps, allows students to zoom in on their local communities. The formative performance task asks students to create community maps demonstrating and classifying several parts of their communities.

Supporting Question 3

The third supporting question—“How does our use of land improve or harm our community?”—suggests that, as humans modify their environments, these modifications can have positive and negative effects. The formative performance task asks students to complete a T-chart documenting the pros and cons of a major human modification—the construction of the Tappan Zee Bridge. The featured sources, an image bank of the bridge construction and a video interview with a local resident, offer students ideas about how this specific development and developments in general can have both positive and negative impacts on community environments.

Supporting Question 4

The final supporting question—“How has a local development improved or harmed our community?”—introduces an opportunity to apply the ideas developed across the first three formative performance tasks to a research and Taking Informed Action opportunity. In responding to the supporting question, students research a specific development in their own communities and assemble ideas about its overall impact—positive, negative, or both. Through independent and teacher-guided research, students use local newspapers, images, videos, and interviews with community members as sources to complete the final formative performance task, the creation of a pictorial essay to document how this development has impacted their community. This task also serves as an opportunity to
Take Informed Action. Students may invite local elected officials to visit and view their projects and engage in a conversation about the factors that should be weighed when undertaking such community developments. To prepare for this conversation, students write interview questions about aspects of the development they researched that they want to understand better and about community development in general.

**Summative Performance Task**

At this point in the inquiry students have examined how land is used and modified to form communities over time. They have considered the reasons behind these modifications and developments and have questioned the implications they have on community environments. Students should be able to demonstrate the breadth of their understanding and their ability to use evidence from multiple sources to construct an evidence-based argument responding to the compelling question “How do we shape our environment?”

Student arguments will likely vary, but could include any of the following:

- We shape our environment by building highways, bridges, tunnels, apartments, factories, and stores, but not always for the better.
- We shape our environment for the better by creating bridges, highways, and big buildings.
- We shape our environment by creating things that help people live better lives.
- We sometimes shape the environment for the worse using farmland for buildings.

Students have the opportunity to Take Informed Action by developing a pictorial collage that students then invite local officials to view and discuss. The understand element is developed through Supporting Questions 1 and 2 while the assess component is represented in Supporting Question 3. The act piece is represented in Supporting Question 4.
## Staging the Compelling Question

| Featured Source | Source A: SimCity, time-lapse video showing the growth of a city, *See Our City Grow*, March 12, 2013 |

**NOTE:** This video, from SimCity, offers a visual of how land can be transformed from grasslands and forests into a modern city. Teachers and students can view the video at: [https://www.youtube.com/watch?v=EBG5VGMoA1M](https://www.youtube.com/watch?v=EBG5VGMoA1M)
Supporting Question 1

**Featured Source**

**Source A:** Image bank: New York City in 1609 versus 2009

---

**NOTE:** The two images below illustrate the change in the New York City landscape over time. The left-side image is an recreation of what the right-side photograph likely looked like in 1609.

**New York City in 1609 and 2009**

![Images of New York City in 1609 and 2009](https://habitatthegame.files.wordpress.com/2014/05/spuytenduyvil_split.jpg)

Image courtesy Markley Boyer, Mannahatta Project/Wildlife Conservation Society.

[https://habitattthegame.files.wordpress.com/2014/05/spuytenduyvil_split.jpg](https://habitattthegame.files.wordpress.com/2014/05/spuytenduyvil_split.jpg)
Supporting Question 2

| Featured Source | Source A: Image bank: Various uses of land |

Image 1: Residential use of land in a rural area.

iStock © cindygoff.
Image 2: Residential use of land in an urban area.

© Jorge Salcedo/ Shutterstock.com.
Image 3: Commercial use of land in a suburban area.

iStock © slobo.
Image 4: Industrial use of land in an urban area.

iStock © akiyoko.
Image 5: Recreational use of land in a suburban area

Shutterstock © kuponjabah.
Supporting Question 2

**Featured Source**  
**Source B: Google Maps**

**NOTE:** Google Maps is an extraordinary resource for looking at locations near and far. Access the site at [http://google.com/maps](http://google.com/maps)

Map data ©2015 Google.
# Supporting Question 3

| Featured Source | Source A: Image bank: Historic and current images of the Tappan Zee Bridge |

---

**Image 1:** Pilings for the bridge.

*Courtesy Westchester County Historical Society.*
Image 2: Supporting piers for the bridge.

Courtesy Westchester County Historical Society.
Image 3: Framework for the bridge.

Courtesy Westchester County Historical Society.
Image 4: Completed bridge.

iStock © amlphoto.
Supporting Question 3

| Featured Source | Source B: Seth Harrison, website video interview with Winston Perry, Tappan Zee Bridge: Life in Rockland before the Span, no date |

NOTE: The screen shot below shows Winston Perry who narrates the history of the area around the Tappan Zee bridge. The video begins with a commercial.

From The Journal News, © Gannett-CN. All rights reserved. Used by permission and protected by the Copyright Laws of the United States. The printing, copying, redistribution, or retransmission of this content without express written permission is prohibited.
Supporting Question 4

| Featured Source | Source A: Teacher- and student-generated sources on a local community-development project |

Teachers and their students generate sources around a community project (e.g., the development of a new park, a new housing project, demolition of an old factory) of local origin.