

**Experiential Learning Module:**  
**Using GST to Understand History: Viewshed Analysis & “Re-Seeing” Gettysburg**

**BIG QUESTIONS**

- How can geospatial technologies impact our view of the world, in past and present, and help us predict the future?
- How can geographic tools help us understand the importance of geography on our understanding of history?

**OVERVIEW**

In schools, the social sciences (social studies) may be presented and understood as discrete disciplines, with courses focusing on geography, government, economics, and history each independent from one another. Furthermore, the methods used to understand one discipline may not be considered in others. For example, history is often presented as static. It may be seen as some “thing” (event, person, etc.) that happened long ago, has been reported in a textbook, and is unchanging. However, it is important for learners to understand that new evidence can have an impact on our understanding of the past, and that evidence may come from unexpected places. As new technologies emerge, there are increasingly new methods available supporting investigations attempting to understand our world, present and past. Focusing on the development of students’ abilities to “***Explain the advantages of using multiple geographic representations to answer geographic questions***” (NRC 2006) within the context of history, this module challenges students to use information presented through historical and topographical maps, panoramic views, remotely sensed images, geographic visualizations, and computer generated recreations to address the essential question: *How can geospatial technologies impact our view of the world, in the past and present, and help us to predict the future?* Supporting this question, students will consider how geographic tools can help us to “re-see” historical events.

**Content focus:** History, geography, social studies

**Skill focus:** Map interpretation, remote sensing, data analysis

**Level of Inquiry:** 2- Structured inquiry.

**Key Concepts**

Perspective (historic and geographic), representations, viewshed analysis, “re-seeing”

Grade Level: 9-12

Duration: 1-3 days

**Materials:**

Engage-Student Resources I & II

Explore-Student Resources III & IV; Appendices A & B

Explain-Student Resources V & VI; access to Internet for video & maps

Apply-Student Resource VII; Appendix C

Connect-Access to Internet for Videos

Extend-None

## **STANDARDS**

### ***National Geography FOCUS STANDARDS***

#### **Properties of Geographic Representations (end of Grade 12)**

1. The advantages of coordinating multiple geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualizations to answer geographic questions.

*Therefore, the student is able to:*

- A. **Explain** the advantages of **using** multiple geographic representations to answer geographic questions, as exemplified by being able to
- **Explain** how multiple geographic representations and geospatial technologies (e.g., GIS, GPS, RS, and geographic visualization) could be used to solve geographic problems (e.g., help determine where to locate a new playground, or identify dangerous street intersections within a community).

### **C3 Standards**

#### **1) History Dimension 2: Historical Sources and Evidence**

**D2.His.10.9-12.** Detect possible limitations in various kinds of historical evidence and differing secondary interpretations.

#### **2) Geography Dimension 2: Geographic Representations: Spatial Views of the World**

**D2.Geo.2.9-12.** Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions and their political, cultural, and economic dynamics.

### ***Prior standard: Anticipated prior knowledge***

#### **National Geography Properties of Geographic Representations (end of grade 8)**

**Student knows and understands:** The **advantages and disadvantages** of using different geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualizations for analyzing spatial distributions and patterns

Student is able to A. **Analyze and explain the properties** (position and orientation, projections, symbols, scale, perspective, coordinate systems) and **functions of** geographic representations, as exemplified by being able to

**Analyze** geographic representations based on their **properties** (e.g., orientation, grid system, scale, resolution, and content) and **purposes** (e.g., using GIS and digital globes **to explore geographic information and relationships** at a range of scales).

### **C3 Standards**

#### **1) History Dimension 2: Historical Sources and Evidence**

**D2.His.10.6-8.** Detect possible limitations in the historical record based on evidence collected from different kinds of historical sources.

#### **2) Geography Dimension 2: Geographic Representations: Spatial Views of the World**

**Prior: D2.Geo.2.6-8.** Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions, and changes in their environmental characteristics.

## **LEARNING TARGETS**

By the end of this module students will appreciate how geographic thinking and tools can provide perspective to help us understand historical events. They will use spatial thinking and geographic tools to make predictions and suggest solutions.

## **CONTENT BACKGROUND**

Teachers wishing to provide extensive background on the Battle of Gettysburg may use their textbooks or resources found at the end of this lesson (Appendix A).

Overview: The Battle of Gettysburg is considered one of the most important battles of the American Civil War and came to be known as the turning point in the conflict. It was here that Confederate General Robert E. Lee marched his Army of Northern Virginia into Pennsylvania, meeting the Union Army of the Potomac under the leadership of General George G. Meade, at Gettysburg. The battle represents the bloodiest of the Civil War, with over 50,000 casualties over the course of the three-day battle. It is also one of a few battles taking place on Union soil. The decisions made by both sides were in part predicated on their understanding of the geography and the information available to them at the time.

## **I. ENGAGE**

*Primary Document: Journal response*

As students read the following diary entry by Henry Keiser, of the 96<sup>th</sup> Pennsylvania Regiment (<http://www.totalgettysburg.com/henry-keiser-diary.html>), direct them to identify words and phrases describing the place (or places) this diary is describing. Students are to be prepared to defend claims related to language they have identified. Teachers may want to remove direct references to the location including Little Round Top, and Gettysburg, as illustrated in selection below using ~~strike-through~~ to promote students' use of context clues (**Student Resource I**).

### **Henry Keiser, of the 96<sup>th</sup> Pennsylvania Regiment Diary Entry - July 2, 1863**

Instead of turning to the left last night, we should have turned to the right, and by the time we were fairly started on the right road, it was daylight. At 8:30 this morning we crossed the line into Pennsylvania, and at 10 A.M. we passed through Littlestown. The civilians along the line of march could not do enough for us. Most every household standing ready with water buckets dealing out water to the boys as we marched along, and the Stars and Stripes hanging out in all directions. It made us feel as if we were home once more, and the citizens of Southern Pennsylvania, through their kindness to the soldiers have put now life into us.

Can hear heavy canonading ahead all day. At five O'clock this evening we arrived ~~at what is called Little Round Top, a short distance from Gettysburg.~~ Very heavy firing to our left at 5 o'clock.

At six this evening we filed left, marched some distance, when we formed a line of battle on a knoll and in some underbrush. Our troops gave way and the Rebs drove our men. The Penna. Reserves, forming on our front, counter charged the Rebs our line following up sharp. The enemy was driven back and we regained the ground lost a short time before. We halted in a hollow behind a stone fence, having marched, since last evening, thirty two miles.

At the time we formed a battle line, I threw my knapsack, being too tired to carry it into a charge, but after advancing a short distance the regiment was halted and the men unslung knapsacks and had guards placed over them. [If students are provided the entire diary entry, they will also identify, we arrived at what is called Little Round Top, a short distance from Gettysburg.]



*Class Discussion:*

What words/phrases were identified?

Possible Answers: turning to the left, turned to the right, started on the right road, crossed the line into, passed through, along the line of march, citizens of Southern Pennsylvania, we filed left, some distance, on a knoll, in some underbrush, in a hollow,

Follow-up questions and Assessment (**Student Resource II**):

Ask students to define terms, and/or explain their thinking.

What questions do you have about this description of the location?

Describe your image of the scene using examples from the text to support your description.

Identify the location using evidence from the descriptions and your prior knowledge to support your answers (this can be done in writing or by providing students with a map).

## **II. EXPLORE**

### **A. Independent work**

Provide each student one of the representations of the Battle of Gettysburg (resources provided in Appendix A). There are five maps provided, to ensure collaboration during part B below, be certain at least two students are assigned to each map. In smaller classes, fewer maps.

Direct students to analyze the document addressing the following requirements (**Student Resource III**) or documents provided in Appendix B:

Identify when the map was created

State the map title. Explain how the title helps your understanding the map.

Identify the map properties (e.g., orientation, scale, perspective, etc.)

Describe the purpose of the map

Evaluate the map attributes and whether each meets its purpose.

List questions you have about the map and/or location.

Explain how the map does or does not align with your perception of the location Henry Keiser, of the 96<sup>th</sup> Pennsylvania Regiment described in his diary.

*When individual students have completed part A, move to part B.*

### **B. Collaborate**

Small group activity: Sharing and thinking

Students with same maps compare their responses to the prompts from part A, making note of different observations. Students will reflect on, discuss, and provide explanations for the differences including their perception of the location compared to Henry Keiser's diary entry (**Student Resource IV**).

Groups will then:

- Share their findings with the class.
- Compare map views and similarities/differences.
- Create a master list of differences between views considering information provided, uses, etc. (**Student Resource IV**)
- Document decisions and overall consensus regarding the usefulness and purpose of each map.

*Teacher leader questions at end of presentation:*

How did you/your group start/proceed with this task?

What did you see/notice immediately?

What additional information would have helped your group?

What differences did you notice between your peers' observations?

Were there differences in the way students addressed their evaluation of the map?

Which map most closely resembles your (student) perceptions based on the description by Henry Keiser?

### III. EXPLAIN

#### A. Explaining through Gettysburg Case Study and Historical GIS

Students, individually or in groups watch a TedEd video, created by Anne Kelly Knowles entitled, *A digital reimagining of Gettysburg*. The video introduces students to the concept of viewshed analysis as part of Knowles discussion. The TedED video maybe accessed through the following link:

<http://ed.ted.com/lessons/a-digital-reimagining-of-gettysburg-anne-knowles#watch> or through

YouTube: A digital reimagining of Gettysburg - Anne Kelly Knowles (9:04)

<https://youtu.be/f4pkzHP3qyA>

**The following information should be used before and after the video.**

**Video Background:** Anne Knowles is a geographer with a specialty in Historical GIS. The video is a discussion presented to a group of middle school students as part of a TedEd talk in which she illustrates how she used digital technologies to investigate the Battle of Gettysburg, the turning point of the Civil War. Focusing on Robert E. Lee's decision to order Pickett's Charge, Knowles discusses the process of transforming and moving historical maps to digital imagining using Geographic Information Systems (GIS) in order to "reimagine" Lee's decision, in an effort to "make an educated guess why he made this crucial mistake."

**Video prompts (Student Resource V):**

**Pre:** Ask students about the terrain around Gettysburg, PA. Reinforce appropriate use of academic language. For example, encouraging students to use cardinal directions, or stating there were hills rather than it looks bumpy.

**During:** Stop (at about 1:40) and ask students what Knowles means by the term "elevation" and how this is represented on the map?

Stop at 3:48 to discuss line of sight, perspective, and viewshed analysis. Ask: If you were standing where Knowles thinks Lee was standing, what could you see and not see? How is this represented on the map? Follow-up questions should focus on map representation of geographic attributes.

Stop at 4:58 and ask: Based on this map, and what Lee could see, what would you tell him to do?

**After:** Thinking about the geography around Gettysburg, why did the Confederate lose at the Battle of Gettysburg.

Time permitting, there are interactive maps related to this video by Anne Kelly Knowles that can be accessed on the Smithsonian Website that can reinforce these concepts:

<http://www.smithsonianmag.com/history/A-Cutting-Edge-Second-Look-at-the-Battle-of-Gettysburg-1-180947921/?no-ist=>

In addition, ESRI has a story map related to this case study that will serve the same purpose:

<http://storymaps.esri.com/stories/2013/gettysburg/>

## B. Defining Viewshed and Related Geospatial Technologies

Follow-up Discussion (**Student Resource VI**):

Reinforcing Knowles discussion of making an “educated guess,” ask students to make an educated guess about the definition of the term “viewshed.”

Compare student/class definition with the following definitions and applications of the definition:

Oxford Dictionary

The view of an area from a specific vantage point; a computer model of this.

(<https://en.oxforddictionaries.com/definition/viewshed>)

Environmental Systems Research Institute (ESRI)

[3D analysis] The locations visible from one or more specified points or lines. Viewshed maps are useful for such applications as finding well-exposed places for communication towers, or hidden places for parking lots. (ESRI, <http://support.esri.com/other-resources/gis-dictionary/term/viewshed>)

Review map projections, and how different maps represent locations. This last section can be in the form of a mini-lecture, and tailored to your needs and time limitations.

Discuss how the viewshed representation compares to others representations of a locations. (Review National Geographic Map, <http://www.nationalgeographic.org/encyclopedia/map/>)

Discuss how other geospatial technologies (e.g., GIS, GPS, RS, and geographic visualization) could be used to help address historical events, including both affordances and limitations of the technology.

## IV. APPLY

Discuss with students how new learning can be applied to other situations. Students will brainstorm possible applications of geographic representations in historical and current events.

Next, students will apply what they have learned to an imaginary situation, considering their past experiences and practice through the Zombie (See Appendix C and **Student Resource VII**).

## V. CONNECTIONS

Introduce students to other applications of GIS to understand current events and introduce students to careers related to geospatial technologies. View the following video created by Penn State Public Broadcasting illustrating how the US military uses GIS for both warfare and peaceful missions. Topics in the video include Geospatial technology, US military, mission planning, terrain data, human geography (culture, economics, education)

Episode 3: Chapter 2, Waging Modern War (4:18 minutes)

<http://www.youtube.com/watch?v=Lifkl7puN9A>

For closed caption version:

<http://geospatialrevolution.psu.edu/episode3/chapter2>

(and open captions in screen by up arrow in bottom right)

## **VI. EXTEND:**

*“What’s next?”*

The following questions may be used for discussion following the module application:

*Example questions about applying the experience:*

How does my view of the community impact how I interact with my community?

What can I do in my community to support others “re-seeing” the neighborhood?

Where might I go to learn more about technologies that support peoples’ everyday interaction with their neighborhoods?

As a class you might discuss how issues related to re-seeing can be useful in their future beyond the classroom. Further, a discussion regarding how more effective behaviors can develop from the new learning could reinforce the ideas presented in this module. Students may want to investigate either a historical, current event, or school level problem that may be answered using ways of “re-seeing” a location, situation, or event.

### **Potential Challenge:**

*How is an understanding of viewsheds important for mitigating crime in the community?*

Students could be assigned a specific place in the community, such as a local park, a parking lot near the mall, a street near the school, or any other suitable location.

First, they could explore that place virtually via Google Earth or Google Street View in Maps. They can place themselves at that spot virtually and examine the viewshed from all directions around their assigned location. What is their view like in every direction? Are there any obstacles to seeing what lies ahead of them from that place (such as trees, bushes, buildings, and so on)?

There have been a few studies that suggest that urban parks would be safer if there were fewer obstacles in the way for neighbors and law enforcement to observe what is going on in the parks. For example, the removal of brush or abandoned houses near the park has opened up the view in some cases. Students could be asked to consider what implications there may be for the viewshed from their assigned locations. They could then suggest ways to improve safety in the community.



## Appendix Table

| Item                   | URL   | Purpose   |
|------------------------|---|---|
| Background Information | <a href="http://www.totalgettysburg.com/henry-keiser-diary.html">http://www.totalgettysburg.com/henry-keiser-diary.html</a>   | Henry Keiser's dairy explaining the Battle of Gettysburg in detail.   |
| Video                  | <a href="http://ed.ted.com/lessons/a-digital-reimagining-of-gettysburg-anne-knowles#watch">http://ed.ted.com/lessons/a-digital-reimagining-of-gettysburg-anne-knowles#watch</a> | A Ted Video introducing students to GIS analysis of viewshed.   |
| Analysis               | <a href="http://ed.ted.com/lessons/a-digital-reimagining-of-gettysburg-anne-knowles#watch">http://ed.ted.com/lessons/a-digital-reimagining-of-gettysburg-anne-knowles#watch</a> | Interactive map and article by Smithsonian website that can be accessed to understand the concepts of viewshed and Battle better. |
| Mapping                | <a href="http://storymaps.esri.com/stories/2013/gettysburg/">http://storymaps.esri.com/stories/2013/gettysburg/</a>   | Story map by ESRI   |
| Definition             | <a href="https://en.oxforddictionaries.com/definition/viewshed">https://en.oxforddictionaries.com/definition/viewshed</a>   | Oxford dictionary definition of viewshed  |
| Vocabulary support     | <a href="http://support.esri.com/other-resources/gis-dictionary/term/viewshed">http://support.esri.com/other-resources/gis-dictionary/term/viewshed</a>                         | ESRI dictionary to look up GIS terminology  |
| Comparitive maps       | <a href="http://www.nationalgeographic.org/encyclopedia/map/">http://www.nationalgeographic.org/encyclopedia/map/</a>   | National geographic website has variety of maps with other viewshed representations   |
| Video                  | <a href="http://www.youtube.com/watch?v=LifkI7puN9A">http://www.youtube.com/watch?v=LifkI7puN9A</a>   | Penn State video that explains how maps are used in the military  |
| Video                  | <a href="http://geospatialrevolution.psu.edu/episode3/chapter2">http://geospatialrevolution.psu.edu/episode3/chapter2</a>   | Penn State video that explains how maps are used in the military  |

## RESOURCES & REFERENCES

(1863) *[Sketch of the battlefield of Gettysburg, July 1st and 2nd, 1863]*. [Map] Retrieved from the Library of Congress, <https://www.loc.gov/item/2005625069/>.



Bachelder, J. B. (1863) *Gettysburg battle-field. Battle fought at Gettysburg, Pa., July 1st, 2d & 3d, 1863 by the Federal and Confederate armies, commanded respectively by Genl. G. G. Meade and Genl. Robert E. Lee.* Boston and New York: Jno. B. Bachelder. [Map] Retrieved from the Library of Congress, <https://www.loc.gov/item/2007630421/>.

Google Maps. (2017). *The University of Toledo*. Retrieved from <https://www.google.com/maps/place/The+University+of+Toledo/@41.6592145,-83.6116801,639m/data=!3m1!1e3!4m5!3m4!1s0x883c78ca74eda69f:0xf9c73b0fad95b575!8m2!3d41.6580307!4d-83.6140701>

Google Maps. (2017). *The University of Toledo Street view*. Retrieved from <https://www.google.com/maps/@41.6603279,83.6130118,3a,75y,91.03h,93.71t/data=!3m6!1e1!3m4!1scWRw-wwph46D59TQHY3x4g!2e0!7i13312!8i6656!6m1!1e1>

Knowles, A. K. (n.d.). A digital reimagining of Gettysburg—Anne Knowles [Video file]. Retrieved from <http://ed.ted.com/lessons/a-digital-reimagining-of-gettysburg-anne-knowles#discussion>

Knowles, A. K. 2013. A Cutting-Edge Second Look at the Battle of Gettysburg. The Smithsonian. Retrieved from <http://www.smithsonianmag.com/history/A-Cutting-Edge-Second-Look-at-the-Battle-of-Gettysburg-1-180947921/?no-ist=>

Pennsylvania State University & Penn State Public Broadcasting. (2010). Episode 3: Chapter 2, Waging Modern War. *The geospatial revolution*. University Park, Pa.: Pennsylvania State University. Retrieved from <http://www.youtube.com/watch?v=LifkI7puN9A>

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Rosen, R.J. (2013) Interactive Gettysburg: Using Modern Mapping Tools for a New Look at the Historical Battle Retrieved from <https://www.theatlantic.com/technology/archive/2013/07/interactive-gettysburg-using-modern-mapping-tools-for-a-new-look-at-the-historical-battle/277432/>

Snedden, R. K. (1863) *Cavalry battle, Gettysburg, Pa. July 3rd 3:30 p.m.* [S.l., to 1865] [Map] Retrieved from the Library of Congress, <https://www.loc.gov/item/gvhs01.vhs00150/>.

Snedden, R. K. & Birney, D. B. (1863) *Copy of official plan of Gettysburg. Pennsylvania, fought 1st, 2nd, 3rd July 1863.* [to 1865] [Map] Retrieved from the Library of Congress, <https://www.loc.gov/item/gvhs01.vhs00291/>.

Viewshed (n.d.). English Oxford Living Dictionary. Retrieved through <https://en.oxforddictionaries.com/definition/viewshed>.

Viewshed (n.d.). Esri, GIS Dictionary. Support: Other Resources. Retrieved through <http://support.esri.com/other-resources/gis-dictionary/term/viewshed>

## Appendix A: Battle of Gettysburg Maps



(1863) *[Sketch of the battlefield of Gettysburg, July 1st and 2nd, 1863]*. Retrieved from the Library of Congress, <https://www.loc.gov/item/2005625069/>.

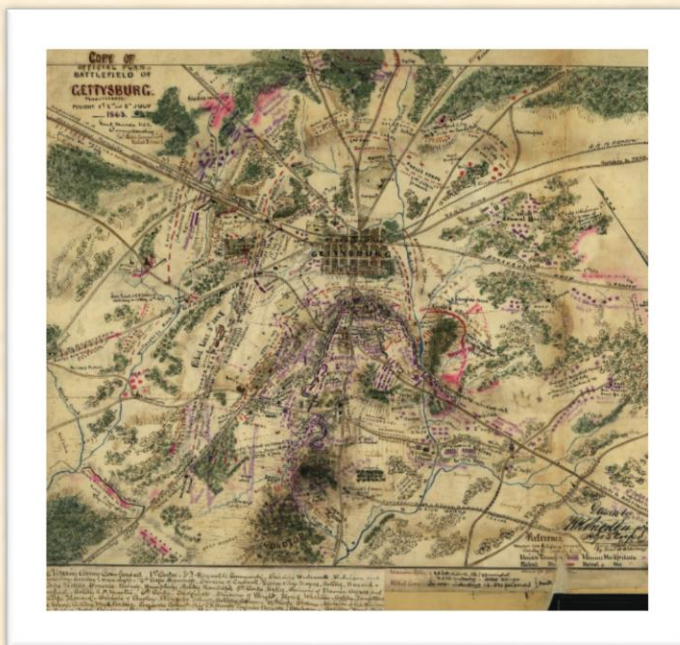


Bachelder, J. B. (1863) *Gettysburg battle-field. Battle fought at Gettysburg, Pa., July 1st, 2d & 3d, 1863 by the Federal and Confederate armies, commanded respectively by Genl. G. G. Meade and Genl. Robert E. Lee.* Boston and New York: Jno. B. Bachelder. [Map] Retrieved from the Library of Congress, <https://www.loc.gov/item/2007630421/>.



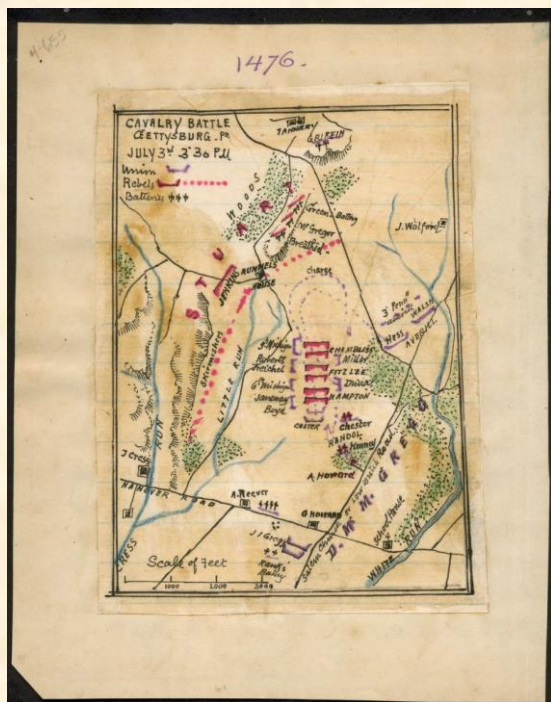


Reed, C. W. (1863) *Plan of the Gettysburg battle ground*. [S.l., Chas. W. Reed, 9th Mass. Battery] [Map] Retrieved from the Library of Congress, <https://www.loc.gov/item/99439158/>



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Sneden, R. K. (1863) *Cavalry battle, Gettysburg, Pa. July 3rd 3:30 p.m.* [S.l., to 1865] [Map] Retrieved from the Library of Congress, <https://www.loc.gov/item/gvhs01.vhs00150/>.

## Appendix B Primary Document Analysis Support Document

### TEACHER'S GUIDE ANALYZING MAPS



Guide students with the sample questions as they respond to the primary source. Encourage them to go back and forth between the columns; there is no correct order.


| OBSERVE   | REFLECT  | QUESTION  |
|---|--|---|
| <p><b>Ask students to identify and note details.</b></p> <p>Sample Questions:</p> <ul style="list-style-type: none"> <li>Describe what you see. • What do you notice first?</li> <li>What size and shape is the map? • What graphical elements do you see? • What on the map looks strange or unfamiliar? • Describe anything that looks like it does not belong on a map. • What place or places does the map show? • What, if any, words do you see?</li> </ul> | <p><b>Encourage students to generate and test hypotheses about the source.</b></p> <p>Why do you think this map was made? • Who do you think the audience was for this map? • How do you think this map was made? • How does it compare to current maps of this place? • What does this map tell you about what the people who made it knew and what they didn't? • If this map was made today, what would be different? • What would be the same?</p> | <p><b>Invite students to ask questions that lead to more observations and reflections.</b></p> <p>What do you wonder about...<br/>who? • what? • when? • where? • why? • how?</p> |

### FURTHER INVESTIGATION

**Help students to identify questions appropriate for further investigation, and to develop a research strategy for finding answers.**

Sample Question: What more do you want to know, and how can you find out?

| A few follow-up activity ideas:   | Beginning   | Intermediate   | Advanced   |
|---|---|--|--|
| <p>Have students write a brief description of the map in their own words.</p> | <p>Study three or more maps of a city or state at different time periods. Arrange them in chronological order. Discuss clues to the correct sequence.</p> | <p>Search for maps of a city or state from different time periods, then compile a list of changes over time and other differences and similarities between the maps.</p> | <p>For more tips on using primary sources, go to <a href="http://www.loc.gov/teachers">http://www.loc.gov/teachers</a></p> |

 LIBRARY OF CONGRESS | [loc.gov/teachers](http://loc.gov/teachers)

Library of Congress (n.d.). Teacher's guide analyzing maps. [Illustration.] Retrieved from [http://www.loc.gov/teachers/usingprimarysources/resources/Analyzing\\_Maps.pdf](http://www.loc.gov/teachers/usingprimarysources/resources/Analyzing_Maps.pdf)





## Appendix C: Zombie Viewshed

### Scenario:

The community you live in has been overrun by Zombies (or Aliens, a foreign invader...etc.), and you need an escape route. Using what you've learned about geographic representations, especially the concept of viewshed, identify one "view" from your current location that would provide the best view if you were trying to escape Zombies from your current location. Write one paragraph describing what you would see.

Next, go to the location, take a photo using a digital device and compare with your written description. Was it what you expected? Upload the photo to share with class along with an explanation of why you selected this location based only on what is visible in the photograph. If you do not have a device, use Google Maps, and take a screenshot of the street level view (see example below).

Consider how you would represent the view on a map. Create a map that shows the path and the representation of the "terrain" in your area. Identify the possible view by shading a "triangle" to represent the viewshed. Describe your plan for escape, supporting your decisions with evidence based on your photographs and the map.

Once you have completed the map and other tasks, describe what cannot be seen outside the frame of the photo (beyond the viewshed), either to the right, left, or behind you and why/how this information is important for making an educated guess about the best path to escape the zombies.

Finally, reflect on this activity and describe how it helped you to re-see either the area you were focusing on, or one of your classmate's paths.



Example 1: Path that I would take to escape. (Google Maps, 2017)



Example 2: What I can see from where I took the photograph. (Sight is limited by trees, buildings, etc.,) (Google Maps, 2017)