

photo by Jacqueline S. Craven



A Monumental Lesson: What Historical Structures Can Tell Us

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Historical structures have connected civilization across time as a representation of important events, famous people, or experiences of diverse cultures. The value systems of a society are reflected in these structures and convey political and historical information. What and whom the culture deems important are sometimes reflected in the structure, much like a snapshot, or a moment in time. Knowledge about historical structures provides understanding of cultures of ancient and modern people.

Most people, if asked, can name at least one famous monument, such as Mt. Rushmore, the Statue of Liberty, the Eiffel Tower, The Great Pyramids, and the New York World Trade Center. Sometimes historical structures are erected to commemorate historic events, such as lives lost on battlefields like Gettysburg. Some were intended to protect people from invaders (e.g., The Great Wall of China). Other structures, such as The Statue of Liberty, are built to honor one country's independence from another. Some historical structures recognize religious persecution (e.g., The Holocaust Memorial in Boston), while another may honor religious beliefs (e.g., Notre Dame Cathedral).

The location of a structure, as well as the materials and technology used in its construction, can tell us about the cultures that created it. For example, some archaeologists believe a pulley system was used to move the massive granite stones to construct the Great Pyramids at Giza. Just as the materials change from place to place, the actual location of a historical structure might change, such as the Luxor Obelisk, which was moved from Thebes, Egypt, to Paris, France in 1833 as a gift from the Egyptian Viceroy Méhémet Ali to the French King Louis-Philippe in honor of King Ramses II and III. (Some refer to this obelisk as “Cleopatra's Needle”).

Archaeologists study the design and construction techniques of historical structures. They note the size, materials, methods and length of time it took to construct an object. For example,

the construction of The Great Wall of China took two hundred years to finish. The Washington Monument took more than a generation to complete (1848–1884) due to lack of funds during the American Civil War. The monument is made of white marble blocks from Maryland and Massachusetts, blue gneiss (granite) from Maryland and Maine, and sandstone from Maryland. A difference in shading of the marble clearly displays the time lapse from initial construction to its resumption in 1876. Interior walls house 193 memorial stones that were presented by individuals, societies, cities, states, and nations of the world. Upon completion, it became the world's tallest structure until the Eiffel Tower was built in 1888, but the Washington Monument is still considered the tallest stone structure in the world.

Interdisciplinary Connections

The planning of a large structure involves mathematics on various levels, since engineers require sufficient knowledge of proportion and scale. Structural design calls upon the disciplines of art and architecture. The builders must have knowledge of materials and their strengths, as well as of water and watersheds, and the characteristics of the landscape where a structure is to be built. These are all key contributors to the long-term durability of any construction that hopes to withstand the trials of time, weather, and human use. To explore some of these topics with first grade students in rural Mississippi, we looked to social studies to provide the contextual relevance needed for students to build an understanding of the world around them. The study of our nation's first president is a part of the curriculum during the first weeks of school. We decided to extend that learning to include ways that we memorialize heroes and historical events. One of the ways is through monuments. By investigating some of the concepts embedded within monuments, we hoped students would gain a sense of the social meaning behind structures and statues often seen in parks and public spaces throughout our country.



A Monumental Lesson

We adapted our “Monumental Lesson,” (FIGURE 1) originally designed for middle school students, so that it would match first grade competencies and objectives as outlined in the curriculum in State of Mississippi schools (FIGURE 2). First, students stated what they already knew about George Washington. Then, students completed a webquest to find answers to some key questions about the monument dedicated in the first president’s honor. Looking at photos and engaging in dialogue about the Washington Monument helped students familiarize themselves with some basic facts of its features, such as size, shape, and building materials. Students participated in a discussion of the monument’s name, age, and location while working through the webquest (FIGURE 3). Next, students’ concepts of the Washington Monument began to unfold as they counted the sides and identified the shapes included in its design (rectangles and triangles). Students also worked to recognize attributes of the shapes by illustrating them, then forming 3-dimensional figures with homemade play-dough. Connecting shapes with figures in this way supported students’ deeper understanding of 3-dimensional objects.

Washington and Leadership

One reason that the citizens of the United States wanted to erect a monument to George Washington was that they felt grateful for the good example he set for how to be a leader. Many first graders can tell you that George Washington was “the first president” or “the father of our country.” Build on this knowledge with a concept that six-year-old children can understand and talk about: Washington did not want to be a king! (Some citizens of

his day, however, wanted him to be just that!) Washington held positions of power—as a general and then as the elected head of the nation—but in both positions he retired when the time came. He stepped down. Today, in the United States, generals serve at the pleasure of the civilian government. In the United States, the president does not serve for life, but has a limited time of service (two four-year terms is the maximum). The United States is not a kingdom or a dictatorship, but a republic, and George Washington helped to make it so.²

Authentic Assessment

As conceptual development is often difficult to measure with pencil and paper evaluations, authentic assessments were paired with this lesson. Assessments for this activity can be adapted for multiple learning modes, and they can fit the practical needs of the first-grade classroom. Equal emphasis on the process as well as the product of students’ work was most appropriate for gauging learners’ progress throughout the Monumental Lesson. Using an evidence-based measurement where the “assignment serves as the final exam,”¹ we assessed students on their successful completion of a portfolio, which included written and performance-based activities in each center (webquest, math, art, and social studies), as well as self-assessments completed by students immediately following the lesson. Teachers observed that student were engaged at every step in this lesson.

After completing the unit of study, students’ fascination with presidents in particular increased due to their exploration of Mr. Washington and his monument. A careful examination of some of the concepts related to the Washington Monument allowed students to interact with historical content in unexpected ways, leading to their discovery of the impact that one individual can have on a people. Discussions revealed that students not only had a greater understanding of the cultural, mathematical, and artistic meaning represented in monuments, but they also now believed that they, too, might one day be president. 🇺🇸

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Notes

1. D. DeCastro-Ambrosetti and G. Cho, “Synergism in Learning: A Critical Reflection of Authentic Assessment,” *High School Journal* (October/November 2005): 57-62.
2. See NPS lesson plans “The Washington Monument: Tribute in Stone” at www.cr.nps.gov/nr/twhp/www/ps/lessons/62wash/62wash.htm.

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Figure 1. National Curriculum Standards (Early Elementary)

SOCIAL STUDIES

National Council for the Social Studies, NCSS

● **CULTURE** A question for exploration in the early grades: “How do the beliefs, values, and behaviors of a group of people help the group to meet its needs and solve its problems?” (p. 68) One possible answer: The symbols, icons, and traditions of our nation celebrate certain values and commitments, such as the limited power of the president under the rule of law. Or, in words that a first grader might speak, “George Washington was president, but not forever. He retired after eight years.” See also these curriculum themes: ● **POWER, AUTHORITY, AND GOVERNANCE** ● **SCIENCE, TECHNOLOGY, AND SOCIETY**

National Council for the Social Studies, *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment* (Silver Spring, MD: NCSS, 2010).

SCIENCE

National Science Education Standards, NSES

1. Understanding and applying media techniques, and processes
2. Using knowledge of structures and functions
4. Understanding the visual arts in relation to history and cultures
5. Reflecting upon and assessing the characteristics and merits of their work and the work of others

National Research Council. *National Science Education Standards* (Washington, DC: National Academy Press, 1996), 103-208.

ART

National Standards for Arts Education, NSAE

10. Abilities to distinguish between natural objects and objects made by humans.

Consortium of National Arts Education Associations. *Standards: Visual Arts* (Washington, DC: ARTSEDGE, 2008), artsedge.kennedy-center.org/.

MATH

National Mathematics Curriculum Standards, NCTM

- Understand measurable attributes of objects and the units, systems, and processes of measurement
- Apply appropriate techniques, tools, and formulas to determine measurements
- Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships
- Use visualization, spatial reasoning, and geometric modeling to solve problems

National Council for Teachers of Mathematics, *Standards & Focal Points for Prekindergarten through Grade 8 Mathematics* (Washington, DC: NCTM, 2010). www.nctm.org/standards/default.aspx.



commons.wikimedia.org

Figure 2. **Overview of A Monumental Lesson**

**I. Distinguish the guiding standards:
Social Studies, Math, Language Arts, and Art**

**II. Choose an appropriate monument:
The Washington Monument**

- A. Introduction: Forming ideas**
1. Lead a discussion in which students talk about what they already know of George Washington
 2. View and discuss pictures, photographs, attributes, concepts, themes
 3. Students compose a definition and description of the monument based upon their observations and understanding
 - a. Discover monument's purpose (s) and meaning
 - b. Note historical and cultural significance
 - c. Consider the time period in which it was conceived and built
 - d. Identify the location chosen for the monument
 - e. Find additional relevant background information

B. Students work in pairs or small groups to conduct research with all available resources (i.e., encyclopedias, libraries, Internet sites.), making written or electronic compilations of information with references

III. Plan Construction and Preparation

- A.** Observe the overall structure of the monument and make predictions about its formation
1. Make notes and sketches of the design
 2. Discuss unique characteristics of this model
 3. Generate ideas on how to construct this structure
- B.** Locate, estimate, and form the monument's geometrical dimensions
1. Draw diagram of model with dimensional details
 2. Discuss and communicate duties for each group member
- C.** Gather materials for construction. Students work in pairs/small groups from this point forward

IV. Build a Model of the Washington Monument

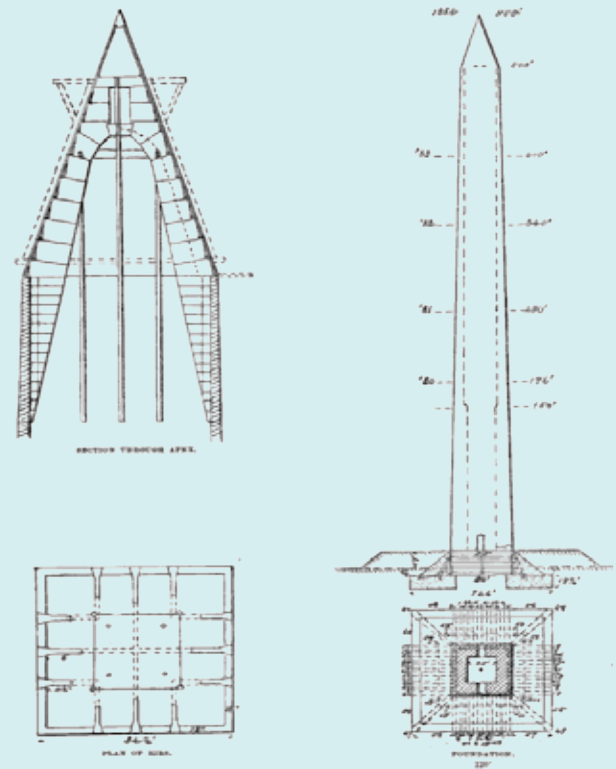
- A. Highlight procedures for completing the assignment
- B. Cooperatively construct the monument
- C. Submit completed model with all written information and resources

V. Review Values and Beliefs

- A. Discuss who Washington was and when he lived
- B. Explain how he held positions of power, but retired from those roles (general, then president) when the time came
- C. The President of the United States has limited powers and a limited term of service—and is not a monarch
- D. As the first president, Washington set a good example of how a leader can behave

VI. Conduct Assessments

- A. Student self-assessments
- B. Peer assessments
- C. Teacher assessments



Monument plans for construction.

Figure 3. A Monumental WebQuest: The Washington Monument in Washington, D.C.

Instructions: Please read each question below and find the answers by visiting the web pages given. Write your answer in the blanks and include any extra information you find interesting.

1. Where is the Washington Monument located? www.nps.gov/wamo

Answer _____

2. On the same website, click "For Kids" in menu on left, then click "Park Fun" at right. Look at the pictures on the main page.

Do you prefer George Washington's Monument or his statue?

Answer: _____

Why? _____

Answer _____

3. Visit www.washingtondc-go.com/attractions/washington-monument-facts.html. How much did it cost to build the Washington Monument? (Hint: Look under "Monument Facts")

Answer: _____

4. Compare your answer to question #3 with the cost from www.enchantedlearning.com/history/us/monuments/washingtonmonument/

Are both answers the same? (Hint: Scroll down to the table for facts & figures)

Answer: _____

5. Go to www.bing.com and type "Washington Monument photos." Click on the first link to view lots of pictures of the Washington Monument.

Which photos do you like best?

Answer: _____

Why? _____

Answer: _____

