Lights, Cameras, Action!

John Ericsson, inventor and designer of the USS *Monitor*. Photo: Courtesy of The Mariners' Museum and Park

Currier and Ives print of the battle between the USS *Monitor* and the CSS *Virginia* on March 9, 1862. Courtesy Library of Congress

Grade Level

- 6-12

Timeframe

- 2-4 hours

Materials

- Computer with Internet access
- Journal
- Rubric

Key Words

Ironclad, turret

Activity Summary

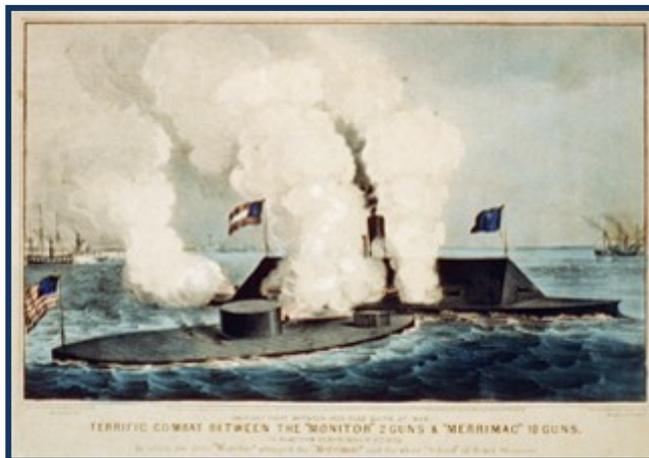This lesson highlights the similarities and differences between Civil War ironclads.

Learning Objectives

To develop a timeline of the construction of Civil War ironclads.

National Standards:

History 5-12: Era 4: 2A; Era 5: 2A;

Era 6: 1A; **Science Standards:** A, E, & G

Background Information

In the early 1800's, the Industrial Revolution came to the United States. It began shortly after the War of 1812 with Great Britain, and it became apparent that America needed a better transportation system and more economic independence. This realization set the stage for manufacturing to expand and for the invention of new technologies.

During wartime there is often an increase in the number of inventions and new technologies created. The Civil War was no exception. One of the biggest leaps in technology during this time for the U.S. was the building of ironclad ships. In the mid-1800s, the era of the wooden ship was slowly ending. Ironclads, with wooden frames covered in iron, gave them a distinct advantage over wooden ships.

During the Civil War, the Confederacy began to build its first ironclad on the burned hull of the USS *Merrimack*. They christened the large ship CSS *Virginia*, and it carried 10 guns along with a ramming rod at the bow.

In response to the construction of the CSS *Virginia*, the Union solicited proposals for their own ironclad. The Ironclad Board selected John Ericsson's design, and in less than 100 days, they launched the USS *Monitor*. *Monitor* was unique in its below waterline construction and rotating gun turret. One eyewitness even described the *Monitor* as looking like a cheese-box on a raft. It was smaller than the CSS *Virginia* and carried only two guns. However, it proved to be a worthy opponent when the two ships met at the Battle of Hampton Roads.

The Battle of Hampton Roads was the first time ever that iron met iron. And although the battle was fought to a draw and neither ship the victor, it was a battle that changed naval technology forever.

Introduction

The Battle of Hampton Roads was a battle between two ironclads—USS *Monitor* and CSS *Virginia*. It was one of the greatest battles in naval warfare, as it was the first time iron met iron, and from that point forward, every non-ironclad naval ship in the world became obsolete. Students will discover how each ironclad was developed, engineered and constructed, and learn the ultimate, long-reaching outcome of the Battle of Hampton Roads. Students will present their findings with supporting evidence in a music video created with Animoto or other media programs.

Suggested Prerequisite Experience

Use Microsoft Word, http://www.livebinders.com/; http://animoto.com; https://padlet.com/, or other program of your choice.*

*The inclusion of links in this guide does not imply endorsement or support of any of the linked information, services, products, or providers.

Teacher Prep

- **NOTE:** *If technology is not available, use print resources and images for students to create a paper project.*
- **Overarching question:** "How did the battle between *Monitor* and *Virginia* change naval history?"
- Visit https://monitor.noaa.gov/150th/ to learn more about the USS *Monitor* and to view images that students may use in project.
- Visit http://www.livebinders.com or other program of your choice and become familiar with how to use.
- Create a LiveBinder for students' use.
- Become familiar with Animoto or other photo site.
- Review suggested resources and/or conduct a search for additional resources to help students answer the overarching question. Add resources to the students' LiveBinder or print them as a list for students to explore.
- If using Livebinders, Animoto, or other program for the first time, introduce the students to it and demonstrate how to use it.
- Prepare a folder of 20-30 digital images that is accessible for student use in the creation of their presentation. *Note: Animoto is a great resource to help students learn to be concise in their presentations due to the limited number of characters allowed per page.*

- To engage students, teacher should create a Civil War Animoto-type presentation that details events prior to the Battle of Hampton Roads. This presentation may cover previous class lessons and be used as a review. This video will also serve as an example for the caliber of work expected from students.
- Obtain a free :Padlet account and set up a wall for each class with the overarching question.
- Students use :Padlet to brainstorm questions as a class to determine what information is needed in order to answer the over-arching question.
- Group students in groups of 2-4 students.
- Students will use LiveBinders (teacher created), a search engine and/or hard copies of materials to research the topic and to answer the questions generated on :Padlet.
- Final product is an Animoto-type presentation where students debate and defend their findings.
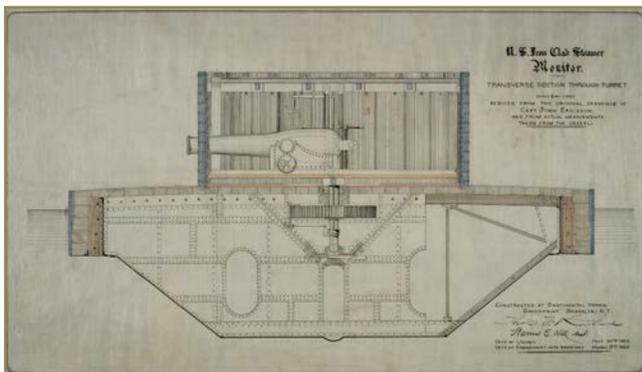
Left: Plan view through the midship section of the USS *Monitor*'s hull and turret showing the turret gear and midship's bulkhead, Courtesy *Monitor* Collection, NOAA
Above: Poster calling for seamen

Activity Overview

After engagement activity, students work in pairs or small groups to research the Battle of Hampton Roads using text and internet resources. Students brainstorm questions that they need answered in order to answer the overarching question: "How did the battle between *Monitor* and *Virginia* change naval history?" Students use teacher created LiveBinders (or other program of your choice) and/or a search engine or hard copy materials to answer the overarching question. Once they fully and completely answer the question, students create an Animoto-type presentation (or other media of your choice) to debate and defend their answer.

Assessment/Grading

A rubric is provided to aid in scoring the project based on the effectiveness of the project in answering the project questions, thoroughness of research, and presentation.

Time Management Tips

- Set predetermined time for research, summaries, and for creating the video. Assign the job of timekeeper to one student in each group.
- To reduce the amount of time spent surfing the internet, create a LiveBinder that is student friendly and has several tabs identifying information found in the sources, as well as graphics and images from https://monitor.noaa.gov/150th or other sites.
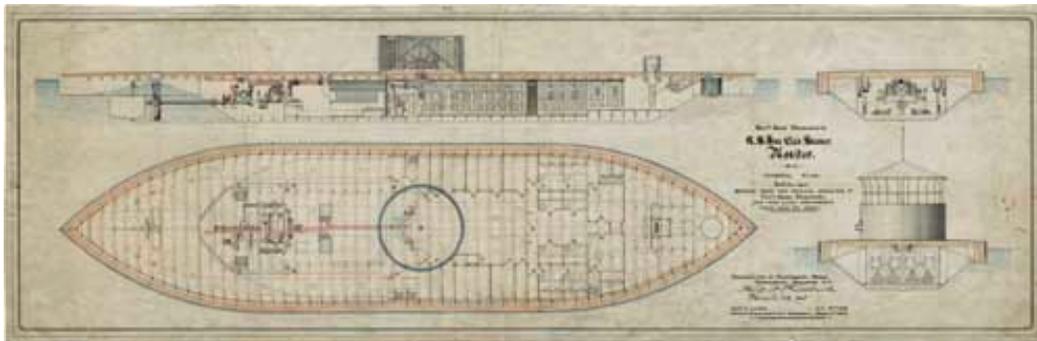
Plan drawing of USS *Monitor*. Photo: Courtesy of The Mariners' Museum and Park

Vocabulary

Ironclad – A steam-powered warship constructed of wood and covered with iron plating

Turret– On a warship, a tower-shaped structure heavily armored, usually rotating horizontally and containing mounted guns and crew

Navy – A nation's entire military organization for sea warfare and defense, including vessels, personnel, and shore establishments

https://monitor.noaa.gov/150th

Name:_____   **Date: _____**

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Class Activity

Engage*
1. As a class, watch the teacher created video about the Civil War leading up to the Battle of Hampton Roads.
2. Start a discussion to develop an understanding of the importance of having a strong navy during the Civil War. Look beyond the obvious and brainstorm questions about the development, innovations, functions, and advantages of a navy during the war. How would a strong navy help win the war?
3. Your assignment is to thoroughly answer the question, "How did the battle between USS *Monitor* and CSS *Virginia* change naval history?"
4. In your group, use https://padlet.com or KWL chart (or other program as instructed by your teacher) to brainstorm and record questions that you will need to research for answers in order to complete the assignment. Each group must come up with at least 3-4 questions.
5. As a class, combine all groups' questions. Delete any duplicate questions and group the questions in categories. If needed, add more questions. Continue until there is a consensus that the questions are complete.

Explore
6. Put the questions into a Word document. (**NOTE:** If you do not have the technology, use the Cornell note taking format to organize and answer the questions.)
7. Use the teacher-created LiveBinders, a search engine, and/or other materials to explore for answers to each question. Answers do not need to be complete sentences, but rather they can be notes taken from your sources. You may agree, disagree, or decide to add more information to any of the answers. All information must have sited source.
8. Determine if there are other questions that need answered in order to complete the assignment.
9. Define all vocabulary words to be included in your final presentation.

Explain
10. Once your group has completed answering all the questions, carefully consider and debate all the information and decide on a final answer to the overarching question.
11. Come to a consensus on what information to use in creating your Animoto-type video to best answer the project question. (**NOTE:** If a team has difficulty coming to a consensus, use a placemat consensus or other format to help move it forward.)

Elaborate
12. Create an outline and a storyboard to organize the information for your video.
13. Use the teacher created image folder and choose 6-10 images to strengthen and illustrate the points that you chose to cover in your group's video.
14. Using Animoto or other media program, create a digital imaging video. Presentation will include images, title, subtitles for explanation, and music appropriate for conveying the intended message of the presentation.
15. Site all sources appropriately.

Evaluate
16. When complete, present your group's video to the class. Be ready to defend why you answered the question as you did.

Extend
17. There were many other new and innovative technological advances made during the Civil War. Explore famous inventors of the time and any effects their innovations had on the war.

If technology is limited, conduct the Engage activity as a teacher-led class activity.

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Resources*

Books

Campbell, R. Thomas: *Confederate Phoenix: The CSS Virginia*. Burd Street Pr, 2001, ISBN-13: 978-1572492011.

Field, Ron: *Confederate Ironclad vs Union Ironclad: Hampton Roads 1862.* Osprey Publishing, 2008, ISBN-13: 978-1846032325.

Simson, Jay W.: *Naval Strategies in the Civil War: Confederate Innovations and Federal Opportunism.* Cumberland House Publishing, 2001, ISBN-13: 978-1581821956.

Wooldridge, Connie Nordhielm: *Thank You Very Much, Captain Ericsson.* Holiday House, 2004, ISBN-13: 978-0823416264.

Web Sites

Monitor National Marine Sanctuary
Explore this 150th anniversary website to learn about the Civil War ironclad, USS *Monitor*, which changed naval warfare forever. Read about the men who made her, the men who commanded her and the men that served and died on her.
https://monitor.noaa.gov/150th

The Mariners' Museum: USS *Monitor* Center
The Marines' Museum is home to hundreds of artifacts recovered from the USS *Monitor*. Visit this site to learn how they are being conserved, watch conservations at work via webcams, and read the blogs of the conservators as they uncover new finds.
https://www.monitorcenter.org/

U.S. Naval Historical Center
The U.S. Navy has an extensive library of historic ship images. Visit the site and search for USS *Monitor* images and documents.
https://www.history.navy.mil/

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Live binder resources may include:

- Civil War Academy
  http://www.civilwaracademy.com/union-navy.html
- Home of the Civil War—The Battle of the Ironclads
  http://www.civilwarhome.com/ironclad.htm
- EyeWitness to History—The Battle of the Ironclads
  http://www.eyewitnesstohistory.com/ironclads.htm
- History Channel—This Day in History
  https://www.history.com/topics/american-civil-war/battle-of-hampton-roads
- The Mariners' Museum and Park—The USS *Monitor* Center
  https://www.monitorcenter.org/
- Navy Historical Center—Battle of Hampton Roads
  https://www.history.navy.mil/content/history/nhhc/our-collections/photography/wars-and-events/the-american-civil-war--1861-1865/css-virginia-destroys-uss-cumberland-and-uss-congress--8-march-1.html
- American Civil War—Union Navy Ship: USS *Monitor*
  https://americancivilwar.com/monitor.html
- Navy History and Heritage Command—Search for CSS *Virginia* Images
  https://www.history.navy.mil/
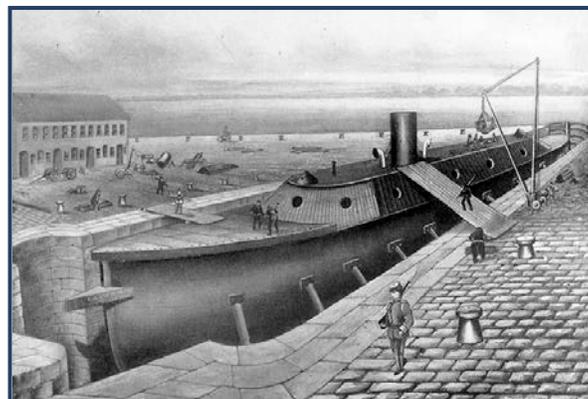
CSS *Virginia* fitting out in drydock at the Norfolk Navy Yard, early 1862. Courtesy Navy History and Heritage Command

https://monitor.noaa.gov/150th

Student Name: _____   **Date:** _____

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Grading Rubric

	Academy Award Winning Video!	Oscar Nomination	Average Ticket Sales	Box Office Bust	Score
	5 points	4 points	3 points	2 points	
Collaboration and Communication	*Worked diligently on task until it was completed. *Highly engaged in conversation and discussion while working on task. *Continued working on the task even when it became difficult or the solution wasn't evident. *Did not waste time or bother other classmates. *Highly flexible and willing to understand other points of view.	*Worked on the task until it was completed. *Engaged in conversation and discussion while working on task. *Worked on the task even when it became difficult or the solution wasn't evident. *Did not waste much time or bother other classmates. *Flexible and willing to understand other points of view.	*Worked on task until it was mostly completed. *Somewhat engaged in conversation and discussion while working on task. *Frequently stopped working on the task when it became difficult or the solution was not evident. *Wasted time by being frequently off task. *Somewhat flexible and willing to understand other points of view.	*Did not complete the task. *Off task, little or no discussion. *Stopped working on the task when it became difficult or the solution wasn't evident. * Did not use time efficiently and distracted other students. *Not flexible and not willing to listen to other points of view.	
Research	*Analysis was complete, accurate, and in depth showing understanding of content and vocabulary.	*Analysis was accurate and complete; however, it could have shown more in depth understanding of content and vocabulary.	*Analysis was somewhat complete with some inaccuracies showing little understanding of content and vocabulary.	*Analysis was incomplete, inaccurate, and lacked understanding of content and vocabulary.	
Information Literacy	*All resources (networks, databases, and print materials) were used in an ethical manner. *Identified all relevant sources.	*Most resources (networks, databases, and print materials) were used in an ethical manner. * Identified most relevant sources.	* Some resources (networks, databases, and print materials) were used in an ethical manner. *Identified some relevant sources.	* Resources used in an unethical manner. *Resources were not included.	
Images and Music	*Relation of music and images to the topic enhances message throughout the presentation.	*Relation of images and music to the topic was evident in much of the presentation.	*Some relation of images and music to the topic was evident in the presentation.	*Relation of music and images to the topic was not evident.	
Text	*Information was accurate with all of the pictures.	*Most of the information was accurate with pictures.	*Inaccurate information and related to very few pictures.	* Inaccurate information and images not related.	
Organization	*Organization of images and text flows to ensure viewer understanding.	*Organization of most images and text flows.	*Organization of images and text somewhat confusing.	*Lack of any organization of images and text.	
TOTAL POINTS					____/30

*Adjust point values and add categories as needed

Name:_____   **Date:** _____

K	W	L
What do you think you KNOW?	**What do you WANT to learn?**	**What did you LEARN ?**

Use additional paper if needed.