

Education

Lights, Cameras, Action!



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

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



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

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, when 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 ship CSS *Virginia*. The *Virginia* was large and carried 10 guns along with a ramming rod at the bow.

In response to the construction of the *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*. The *Monitor* was unique in its below waterline construction and its rotating turret. One eyewitness even described the *Monitor* as looking like a cheese-box on a raft. It was smaller than the *Virginia* and carried less guns, but 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 that iron ever met iron. And although the battle was a draw with neither ship the victor, it was a battle that changed naval history 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.

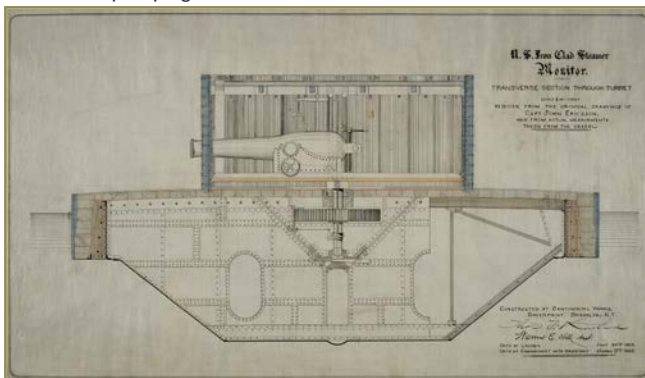
Suggested Prerequisite Experience

Use of Microsoft Word, <http://www.livebinders.com/>; <http://animoto.com>; and <http://www.wallwisher.com> (These are all free resources.)

NOTE: If technology is not available, use print resources and images for students to create a paper project.

Teacher Prep

- **Overarching question:** “How did the Battle of the *Monitor* and the *Virginia* change naval history?”
- Visit <http://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> to become familiar with how to use Livebinders.
- Create a LiveBinder for students use.
- Visit Animoto and WallWisher sites to become familiar with how to use them.
- 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 a list of resources for students.
- Introduce to Livebinders to students, and instruct students on how to use Livebiners.
- Demonstrate to students how to use Animoto and WallWisher.
- Prepare a folder of 20-30 digital images that is accessible for student use in the creation of their Animoto 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, create a Civil War Animoto presentation that details events prior to the Battle of Hampton Roads. This presentation may cover previous class lessons and used as a review. This video will serve as an example of the caliber of work expected from students.
- Obtain a free WallWisher account and set up a wall for each class with the overarching question.
- Students use WallWisher 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 WallWisher.
- Final product is an Animoto presentation where students debate and defend their findings.



Left: Plan view through the midship section of the hull and turret showing the turret gear and midship's bulkhead, Courtesy *Monitor* Collection, NOAA

Above: Poster calling for seamen

Activity Overview

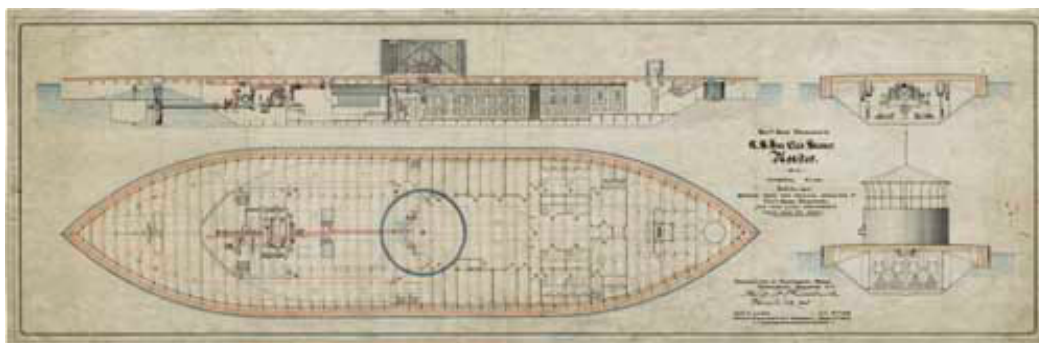
After engagement activity, students working in pairs or small groups, research the Battle of Hampton Roads using text and Internet resources. Students brainstorm questions that they need answered in order to answer the overarching question: "How did the Battle of the *Monitor* and the *Virginia* change naval history?" Students use LiveBinders (teacher created) 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 presentation (or use 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 one student the job of timekeeper for the 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 from <http://monitor.noaa.gov/150th> or other sites.



Plan drawing of USS *Monitor*, Courtesy The Mariners' Museum

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

JPAC – Joint POW (Prisoner of War) / MIA (Missing In Action) Accounting Command where unknown service members' remains are flown for identification.

Name: _____

Date: _____

Lights, Cameras, Action! Class Activity

Engage

1. As a class, watch the teacher created video clip 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 of the USS *Monitor* and the CSS *Virginia* change naval history?"
4. In your group, use <http://www.wallwisher.com> (or a KWL chart) to brainstorm and post questions you will need to find answers for in order to complete the assignment. Each group must come up with at least 3-4 questions. (NOTE: If technology is limited, then do this exercise as a class.)
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 from WallWisher 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 site the source.
8. Determine if there are other questions that need answered in order to complete the assignment.
9. Define all vocabulary words, as these will need 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 video to best answer the project question. (NOTE: If a team is having difficulty coming to a consensus, use a [placemat consensus](#) or other format to help move it forward.)

Elaborate

12. Use the teacher created image folder and choose 6-10 images to strengthen and illustrate the points that you chose to cover in the video.
13. Create an outline and a storyboard to organize the information for your 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.

**Teacher Note: An engage activity may be teacher led using 1-5.*

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.

<http://monitor.noaa.gov/150th>

The Mariners' Museum: USS *Monitor* Center

The Mariners' 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.

<http://www.marinersmuseum.org/uss-monitor-center/uss-monitor-center>

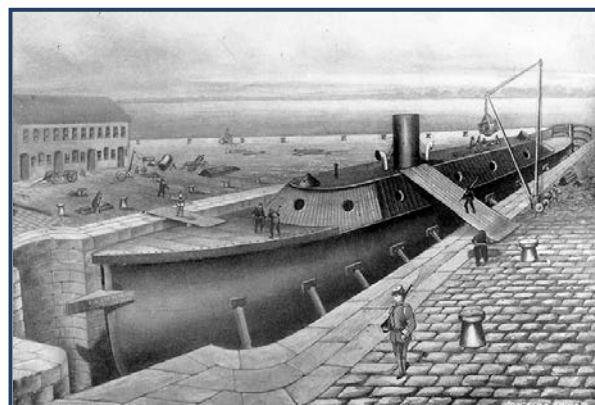
U.S. Naval Historical Center

The U.S. Navy has an extensive library of historic ship images. Visit this page to view images of the USS *Monitor*.

<http://www.history.navy.mil/photos/sh-usn/usnsh-m/monitor.htm>

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
<http://www.history.com/this-day-in-history/battle-of-the-ironclads>
- The Mariners' Museum—The *Monitor* Center
<http://www.marinersmuseum.org/uss-monitor-center/uss-monitor-center>
- Navy Historical Center—USS *Monitor* Construction and images
<http://www.history.navy.mil/photos/sh-usn/usnsh-m/monitor-u.htm>
- American Civil War—Union Navy Ship: USS *Monitor*
<http://americancivilwar.com/monitor.html>
- US Navy History and Heritage Command—Navsource Online
<http://www.navsource.org/archives/01/monitora.htm>
- Navy History and Heritage Command—CSS *Virginia* Images
<http://www.history.navy.mil/photos/sh-us-cs/csa-sh/csash-sz/virginia.htm>



CSS *Virginia* fitting out in drydock at the Norfolk Navy Yard, early 1862.
Courtesy Navy History and Heritage Command

Acknowledgement

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<http://monitor.noaa.gov/education>. If you have any further questions or need additional information, email Shannon.Ricles@noaa.gov

Student Name: _____

Date: _____

Lights, Cameras, Action! Cooperative Group Project

	Academy Award Winning Video!	Oscar Nomination	Average Ticket Sales	Box Office Bust	Score
	5 points	4 points	3 points	2 points	
Collaboration and Communication	<ul style="list-style-type: none"> * 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 * didn't waste time or bother other classmates * highly flexible and willing to understand other points of view 	<ul style="list-style-type: none"> * 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 * didn't waste a lot of time or bother other classmates * flexible and willing to understand other points of view 	<ul style="list-style-type: none"> * 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 wasn't evident. * wasted time by being frequently off task * somewhat flexible and willing to understand other points of view 	<ul style="list-style-type: none"> * 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	<ul style="list-style-type: none"> * analysis was complete, accurate, and in depth showing understanding of content and vocabulary 	<ul style="list-style-type: none"> * analysis was accurate and complete; however, it could have shown more in depth understanding of content and vocabulary 	<ul style="list-style-type: none"> * analysis was somewhat complete with some inaccuracies showing little understanding of content and vocabulary 	<ul style="list-style-type: none"> * analysis was incomplete, inaccurate and lacked understanding of content and vocabulary 	
Information Literacy	<ul style="list-style-type: none"> * all resources (networks, databases, and print materials) were used in an ethical manner * identified all relevant sources 	<ul style="list-style-type: none"> * most resources (networks, databases, and print materials) were used in an ethical manner * identified most relevant sources 	<ul style="list-style-type: none"> * some Resources (networks, databases, and print materials) were used in an ethical manner * identified some relevant sources 	<ul style="list-style-type: none"> * resources used in an unethical manner * resources were not included 	
Images and Music	<ul style="list-style-type: none"> * relation of music and images to the topic enhances message throughout the presentation 	<ul style="list-style-type: none"> * relation of images and music to the topic was evident in much of the presentation 	<ul style="list-style-type: none"> * some relation of images and music to the topic was evident in the presentation 	<ul style="list-style-type: none"> * relation of music and images to the topic was not evident 	
Text	<ul style="list-style-type: none"> * information was accurate with all of the pictures 	<ul style="list-style-type: none"> * most of the information was accurate with pictures 	<ul style="list-style-type: none"> * inaccurate information and related to very few pictures 	<ul style="list-style-type: none"> * inaccurate information and images not related 	
Organization	<ul style="list-style-type: none"> * organization of images and text flows to ensure viewer understanding 	<ul style="list-style-type: none"> * organization of most images and text flows 	<ul style="list-style-type: none"> * organization of images and text somewhat confusing 	<ul style="list-style-type: none"> * 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.