

Sleuthing Through 1862



Casts created from the remains of two USS *Monitor* sailors recovered from the *Monitor's* turret during excavation in 2002. Photo: NOAA, *Monitor* Collection

Grade Level

- 4-8

Timeframe

- 1–2 hours

Materials per Student/Group

- Small cloth bags (8)
- Tub with sand
- Artifacts for bags and tub
- Disposable gloves (for teacher)
- Story Sheet (per group)
- Worksheet (per student)

Activity Summary

Students become detectives to identify the remains of an unknown sailor.

Learning Objectives

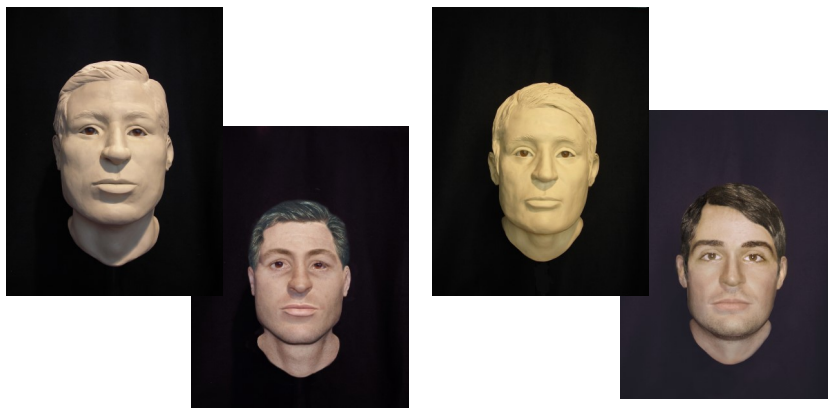
Students will understand the complex and difficult nature of identifying unknown service members.

Key Words

Artifact, DNA, genealogy, DPAA, forensics

National Standards

NCSS: US 5-12; Era 5:2A;
NCSS Thinking Standards: 1, 2 and 3;
CC.ELA.LIT.W: 4-8.2; **NCTE:** 1, 3, and 7



In 2002, as the USS *Monitor's* turret was excavated for recovery, one of the *Monitor* sailors was discovered buried deep inside. After the turret was raised, a second *Monitor* sailor was found. In 2012, to commemorate the 150th anniversary of the *Monitor*, Louisiana State University's FACES Lab recreated the sailors' faces using casts of their skulls and computer programs. Photo: NOAA, *Monitor* Collection

Background Information

On December 31, 1862, a stormy New Year's Eve, 16 men perished when the USS *Monitor* sank off Cape Hatteras, North Carolina. Official reports of the incident listed four officers and twelve enlisted men as lost. The USS *Rhode Island* brought onboard the remaining 47 *Monitor* sailors, who were affectionately known as the '*Monitor* Boys'.

In 2002, when NOAA archaeologists and U.S. Navy divers worked to raise the *Monitor's* turret, they knew that it was possible that they might encounter human remains. Therefore, in anticipation of a likely encounter with skeletal remains inside the turret, the Monitor National Marine Sanctuary solicited participation of the U.S. Military's Central Identification Laboratory in Hawaii, now known as the Defense POW/MIA Accounting Agency (DPAA). Two sets of skeletal remains were discovered and the remains were sent to DPAA for further investigation. Personal artifacts recovered with the remains were sent to The Mariners' Museum in Newport News, Virginia, for conservation.

At DPAA, scientists collected mitochondrial DNA from both sets of remains. It was hoped that with the national and international publicity generated related to *Monitor* expeditions, excavations, and the 150th anniversary, maternal descendants of the lost crewmen would come forward to submit DNA samples for comparison. Unfortunately, to date there has not been a match.

In 2012, in commemoration of the 150th anniversary, NOAA hired a genealogist to trace the family history of each of the 16 sailors that died. In addition, in an effort to bring the sailors to life, Louisiana State University voluntarily recreated the sailors' faces using casts of their skulls and clay. We

now know what the sailors looked like; we just do not know their names.

Due to no known next of kin, in 2012, the Secretary of the Navy ordered that the sailors' remains be interred at Arlington National Cemetery. They were laid to rest on March 8, 2013, with full military honors and a headstone was placed honoring all 16 sailors that perished on that fateful December 31, 1862, when the *Monitor* sank beneath the waves.

Activity Summary

Students become detectives to identify the remains of an unknown sailor.

Learning Objectives

Students will

- Analyze clues to identify an unknown fictitious sailor.
- Understand the complexity and difficulty in identifying unknown service members.

Activity Overview

In this activity, students read a story of a fictional ship, USS *Martin*, which sank in 1862. In the story, eight sailors perished with the ship. The story then jumps to 2011, when the shipwreck was found, along with human remains. The remains were sent to DPAA in Hawaii, but the section of ship that held the remains, went to The Mariners' Museum, where it was carefully excavated. During the excavation, clues were found that could help to identify the unknown sailor (Noah Street).

Teacher Preparation and Implementation

- Optional: Review Growing the Family Tree, also found in this guide, and do in conjunction with this activity.
- Review Artifact Sheet (p. 4).
- Using small cloth bags, create eight ditty bags with small "artifacts" that will help to identify the owners of each bag.
 - Use the Artifact Sheet for suggestions of what to place in the bags, but substitute items as needed for what is readily available. **NOTE:** *If items are not available, print images of items and laminate.*

- You will need a duplicate set of artifacts for Noah Street (one for ditty bag and one for the tub of sand).
- Be sure to have each sailor's story match the items you place in the bag (e.g.— if the story says that the sailor had a wife and two children, then the photograph should be of a woman and two children. Internet searches are helpful in finding images).
- Write letters from sweethearts (see Sample Letters for Sailors' Ditty Bags, p. 5).
- Gather a large tub or small wading pool and fill halfway with sand (if wet, allow the sand to dry).
- In the sand, bury the duplicate set of suggested artifacts for the unknown sailor, Noah Street, whose remains have been discovered.
- Place other objects in the sand, such as seashells or other marine related objects.
- Optional: To spark a conversation on marine debris, bury items, such as a soda can or plastic bag and ask the students if they had soda or plastic in 1862. How did these items get there?
- Divide students into eight groups.
- For each group, print Student Activity—Sleuthing into 1862, Fictional Story of a Fictional Ship (p. 6).
- For each group, print Student Sheet—List of Missing Sailors (p. 7).
- For each student, print Student Activity—Historical Synopsis of the USS *Monitor* (pp. 8-9).
- Follow the steps in the Procedure section.



The USS *Monitor*'s turret breaks the surface of the ocean for the first time in 140 years. Photo: NOAA, *Monitor* Collection

Vocabulary

ARTIFACT — Any object made by humans, typically an item of cultural or historical interest

DNA — Deoxyribonucleic acid, the genetic material in the nuclei of all cells; nucleic acid that carries the genetic information in the cell and is capable of self-replication and synthesis of RNA

DPAA — Defense POW (Prisoner of War) / MIA (Missing In Action) Accounting Agency where unknown service members' remains are identified

FORENSICS — The use of science and technology to investigate and establish facts in criminal or civil courts of law

GENEALOGY — The study or investigation of ancestry and family histories

Procedure

1. Begin the activity by reading *Sleuthing Into 1862*, either as a class, individually, or in a group.
2. Explain that the students will use the artifacts found inside their ditty bag and the List of Missing Sailors to determine whose ditty bag they have.
3. Give students about 15 minutes to go through the bag.
4. Once all the students have identified their sailor, then start going through the sand (for realism, wear gloves as you handle the "artifacts").
5. As each item is excavated, ask if that item matches any of the sailors listed as missing.
6. Once all items are recovered, ask the students who they think the unknown sailor is and why?
7. To wrap up the activity, have the students read the Historical Synopsis of the USS *Monitor* (p. 9) and answer the questions to verify which sailor's remains were found.

Resources

Websites

Monitor National Marine Sanctuary

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

Louisiana State University FACES Lab

Forensic Anthropology and Computer Enhancement Services lab provides forensic anthropology and forensic imaging services to agencies within Louisiana. <https://www.lsu.edu/faceslab/>

Defense POW/MIA Accounting Agency (DPAA)

The DPAA is responsible for the recovery and accounting of missing service members from past conflicts. <https://www.dpaa.mil/>

Books

The Mariners' Museum: *The Monitor Chronicles: One Sailor's Account. Today's Campaign to Recover the Civil War Wreck*. Simon & Schuster, July 3, 2000. ISBN-13: 978-0684869971.

Thompson, Gare: *The Monitor: The Iron Warship That Changed the World (All Aboard Reading, Station Stop 3)*. Grosset & Dunlap, September 29, 2003. ISBN-13: 978-0448432458.

Quarstein, John V.: *The Monitor Boys: The Crew of the Union's First Ironclad*. The History Press, February 25, 2011. ISBN-13: 978-1596294554.

Wiese, Jim: *Detective Science: 40 Crime-Solving, Case-Breaking, Crook Catching Activities for Kids*. Wiley, February 20, 1996. ISBN-13: 978-0471119807.

Video

The USS *Monitor* and NOAA: A Look Through Time

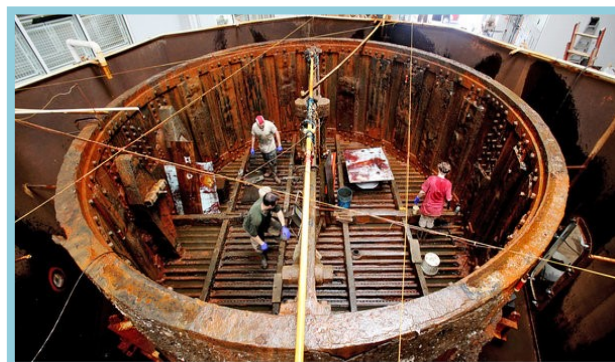
Travel back to 1862 in this educational video to learn how the USS *Monitor* turned the tide of the Civil War. The video also highlights the *Monitor's* discovery, designation as a national marine sanctuary, and more. <https://www.youtube.com/watch?v=EX6H3Tp-2yE>

Extensions

1. Set up each bag as a station and have students rotate through each station to determine which sailor belongs to each bag.
2. Discuss the USS *Monitor* and the two sets of remains discovered inside the turret as it was excavated in 2002. Visit the USS *Monitor's* Preserving a Legacy website at <https://monitor.noaa.gov/150th/> to learn more about the 16 sailors that died, the genealogy research conducted, the unveiling of the faces for the two sailors recovered, the burial at Arlington National Cemetery, and more. Have students debate what should happen to a service member's remains if no living relatives are found. Should they be buried? If so, where? Why?

Answer Key — Sleuthing Through 1862

1) USS *Monitor*; 2) North Carolina; 3) CSS *Virginia*; 4) Hampton Roads; 5) USS *Rhode Island*; 6) sixteen; 7) three; 8) December 31, 1862; 9) red lantern; and 10) storm
Answer: NOAH STREET



The USS *Monitor's* turret is being conserved at The Mariners' Museum in Newport News, Virginia. In this photo, the tank has been drained to allow conservators to work. Photo: NOAA

NAME: _____

DATE: _____

Artifact Sheet For Teacher Preparation

Create eight ditty bags that offer clues for identification. Use the suggested items below or other items that are more readily available. Be sure to make the items in the bags correlate with the information given for each sailor. Add additional general items to the bag, such as soap, clothing, shaving kit, hardtack, and other items as available.

NOTE: *If items are difficult to find, print images of items needed and laminate. Also, explain to students that finding paper intact and readable after being submerged for over 100 years is not likely unless the paper was in a container such as a sealed glass jar or wooden box that was buried quickly in sediment.*

In the large tub or pool, place the duplicate set of items related to **Noah Street**. Be sure to place the following items in the tub that positively identify him as the unknown sailor: **wedding ring, pipe, letter with pressed bluebonnets** (fold and place in a wooden box or glass jar). Other optional items: buttons, belt or belt buckle, silverware, and/or comb.

<p><u>Noah Street</u> Age: 32 Home state: Texas (Austin) Other: Married with a baby Items in bag:</p> <ul style="list-style-type: none"> • Picture of wife (and baby) • Wedding ring • Letter from wife with pressed blue bonnet (Texas state flower) tucked in glass jar. Letter might mention Austin. • Pipe tobacco in drawstring pouch (this will link him to the pipe) 	<p><u>Timmy Able</u> Age: 12 Home state: Massachusetts Other: Youngest member of the crew Items in bag:</p> <ul style="list-style-type: none"> • Wooden toy • Boy's small shirt • Train whistle or other item he might have whittled • Letter from father or mother
<p><u>Charles Wright</u> Age: 50 Home state: Kentucky Other: Married with two children Items in bag:</p> <ul style="list-style-type: none"> • Something indicating hometown of Louisville, Kentucky (wooden horse) • Letter from wife • Picture of wife (and kids) 	<p><u>Siah Williams</u> Age: 30 Home state: South Carolina Other: African American, has a sweetheart Items in bag:</p> <ul style="list-style-type: none"> • Letter from sweetheart with a sketch of a palmetto tree (SC tree) • Picture of sweetheart (African American woman) • Pipe tobacco in drawstring pouch
<p><u>Robert Carter</u> Age: 45 Home state: Virginia Other: Married with four children Items in bag:</p> <ul style="list-style-type: none"> • Something indicating hometown of Richmond, Virginia • Tobacco and cigarette rolling papers • Letter from wife • Picture of wife (and four children) • Harmonica 	<p><u>John Tommy</u> Age: 18 Home state: California Other: Of Asian descent Items in bag:</p> <ul style="list-style-type: none"> • Letter from his mother • Asian trinket (i.e. Buddha figure) • Chopsticks • Fishing reel or lure
<p><u>Antonio Gomez</u> Age: 20 Home state: North Carolina Other: Native American, has a sweetheart at home Items in bag:</p> <ul style="list-style-type: none"> • Dream catcher (or other Native American item) • Picture of sweetheart 	<p><u>Elijah Benning</u> Age: 20 Home state: New York Other: Items in bag:</p> <ul style="list-style-type: none"> • Unfinished letter to sweetheart at home • Picture of sweetheart • Tobacco and cigarette rolling papers • Piece of women's jewelry

SAMPLE Letters for Sailors' Bags

For Noah Street:

March 15, 1862

My Darling,

I have missed you so much. I hope that this finds you in good stead. I pray every day that you are safe and that you will hurry home to me and the baby, although he is not a baby anymore. It is hard to believe Adam will turn two years old next Christmas. I speak of you every day, but I fear he will not know you when you return. I pray for an end to this war to come very soon.

The winter is finally coming to an end, but the weather still has a bit of a chill in the air at night. I went to visit with Mrs. Frygstad a fortnight ago, and the foothills around Austin were so beautiful that day. It made me think of you. I miss our picnics on the Colorado River. I can't wait for you to come home so we can once again enjoy the beauty around us.

I must go darling. I miss you and love you very much. I pray that you will be home soon.

Your loving wife,

Susan

For John Tommy:

April 2, 1862

My Dearest Son,

I write this letter with a heavy heart to tell you that your father died on March 1, 1862. He was in San Francisco visiting his Aunt, when he took ill. The doctors were not able to help him and after two weeks, he eventually succumbed to the illness. His last thoughts were of you and how proud he was of his son for going to war to fight for his new country. Be safe my darling boy. I miss you and love you.

Your loving Mother

NAME: _____

DATE: _____

Sleuthing Into 1862 A Fictional Story of a Fictional Ship Student Worksheet

Shortly after midnight, on June 2, 1862, a strong gale blew as a nor'easter came onshore. After a long struggle to keep afloat, the USS *Martin* succumbed to the sea as it sank off the Virginia coast. Eight brave souls drowned that night as the ship sank beneath the dark waters.

On April 28, 2011, two maritime archaeologists discovered the wreck of what they believed to be the USS *Martin*. The *Martin* was a Civil War Union ship, so they notified the U.S. Navy that they had found it. The Navy verified that it was the wreck of the *Martin*. The shipwreck was considered historically significant and after much discussion, the U.S. Navy decided to recover a small section of the shipwreck. That section would be conserved and placed in a museum for future generations to see and learn about its history and significance to our nation.

As the section of the shipwreck was being recovered, divers came across human remains of what they believed to be a *Martin* sailor. The recovery efforts now took on a new meaning, and the Defense POW/MIA Accounting Agency (DPAA) was notified. All recovery activity stopped until DPAA arrived to properly recover the remains. Once the remains were recovered, they were sent to the DPAA office, where scientists collected DNA samples and gathered other forensics evidence, such as the sailor's ethnicity, height, weight, and approximate age.

Maritime archaeologists and Navy divers worked to finalize the recovery of that section of the ship, and it was taken to The Mariners' Museum in Newport News, Virginia, where artifacts from the USS *Monitor* are being conserved. Once at the museum, conservators carefully excavated the section to locate and remove any artifacts found. They were hopeful that the artifacts might offer clues to the identity of the unknown sailor.

In researching the ship, a document written in 1862 was found that offered some insights into the eight men that died on the *Martin*. It was not a legal document, but it was a primary source document written by a *Martin* sailor in remembrance of his former shipmates. The document contained each sailor's physical description, taken from the ship's log, and a brief description of the sailor as recollected by the author and crew. The physical descriptions might be helpful. However, in 1862, records were not always accurate and often sailors would not even give their real names.

Directions:

Your job is to try to identify the unknown sailor.

1. First, you must become familiar with all eight sailors who died. To learn about each of the eight men, ditty bags have been created that will help you discover more about each sailor.
2. Work in groups to go through the document that describes them.

Left: Sailors onboard a Civil War ship in 1863, courtesy U.S. Naval History and Heritage Command

Right: Sailors onboard the deck of the USS *Monitor*, courtesy Library of Congress



NAME: _____

DATE: _____

Sleuthing Into 1862—Student Worksheet Continued

List of Missing Sailors

John Tommy

Height—5'5" Weight—125 lbs

John was of Asian descent, and he was just 18 years old. He came from California after hearing about the Civil War. He was passionately against slavery and wanted to do whatever he could to help end it. He had been a fisherman before the war, so he wanted to join the Union Navy. He was not married and no one remembers him talking about a sweetheart.

Siah Williams

Height—6' 2" Weight—200 lbs

Siah was in his early 30s and from South Carolina. He was a runaway slave, who wanted to fight for the freedom of all slaves. He talked all the time about his sweetheart and how she had run away with him. He was eager to have the war over so he could go home and marry her. As he sat out on the deck smoking, he would talk about all the things he was going to do when the war was over and he was a free man.

Charles Wright

Height—6' Weight—180 lbs

Charles was one of the older men on the boat, probably around 50. He was an officer. He hailed from Kentucky and talked about how beautiful his farm was just outside of Louisville. He loved horses and had a china collection of tiny horses in his cabin. He wanted to raise horses after the war. Charles was married, but he did not talk much about his wife. He did say he had two children.

Robert Carter

Height—6' 4" Weight—220 lbs

Robert was a big man from Charlottesville, Virginia. He was in his 40's, probably about 45 or 46. He loved to sit on the deck and roll and smoke cigarettes as he talked about his wife and kids. He couldn't wait to go home to them. He also loved playing his harmonica.

Noah Street

Height—5' 11" Weight—190 lbs

Noah was in his early 30s, married, and had a baby. Noah loved to brag, but he would always say that he wasn't bragging, it was just fact. He hailed from the "Great State of Texas" and boy was he proud to be a Texan. He talked a lot about the big sky and these blue flowers that grow in Texas. His father and uncles had fought in the Texas war against Santa Anna to gain its independence from Mexico. Noah wanted to be as brave as his father and uncles. He would sit out on the deck, smoke his pipe, and tell tall tales of Texas.

Timmy Able

Height—5' 2" Weight—100 lbs

Timmy was the cabin boy on the ship. He had just had his 12th birthday before the ship sank. He had walked all the way from Massachusetts to join the ship in Virginia. He loved to sit on the deck at night and whittle. He whittled dogs, chickens, and all kinds of things. Once he whittled this whistle that sounded just like a train.

Antonio Gomez

Height—5' 10" Weight—160 lbs

Antonio was quiet and didn't talk much. He might have been from North Carolina. He was a Native American, but not sure what tribe. He would hang up a circle thing with feathers where he slept and said it was to catch his dreams or bad spirits or something. He also had a sweetheart at home, but he never said much about her.

Elijah Benning

Height—5' 11" Weight—170 lbs

Elijah was young, maybe around 20, and from New York. He talked about how he was going to singlehandedly win the war. He would sit on the deck, smoke his cigarettes, and write his sweetheart back at home. He wanted to marry her before he left, but her dad said no, so Elijah was trying to prove himself as a man to her father. He also bought her some real nice woman things when we were in port once.

NAME: _____

DATE: _____

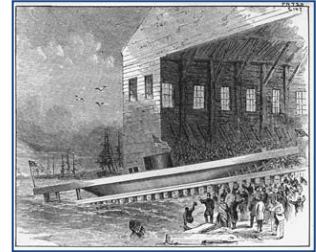
Sleuthing Into 1862—Student Worksheet Continued

Historical Synopsis of the USS *Monitor*

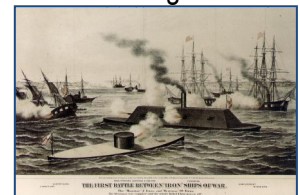


Swedish-American engineer John Ericsson designed the *Monitor*. Based on an earlier concept Ericsson had presented to Napoleon III of France in 1854, the *Monitor* was a radical departure from traditional warship design. The vessel was fully steam powered, with engineering, crew, and officer spaces and the galley all below the waterline. The vessel, constructed almost entirely of iron, was completely armored. A notable feature was the *Monitor's* 21 ½-foot diameter, 9-foot-high revolving turret, which was located at midships and housed two 11-inch Dahlgren smoothbore cannons.

Built in only 98 days at the Continental Iron Works in New York, the *Monitor* launched on January 30, 1862. In early March 1862, the *Monitor* was ordered to Hampton Roads to counter the threat to the federal fleet posed by the CSS *Virginia*, a Confederate ironclad built from the burned hull of the USS *Merrimack*. The Union ironclad arrived on the evening of March 8 in time to see the results of the havoc and destruction caused by the *Virginia* on the Union wooden frigates *Cumberland* and *Congress*. The steam frigate, USS *Minnesota*, had run aground, and the *Monitor* was ordered to protect her because the *Virginia* was sure to return at first light.

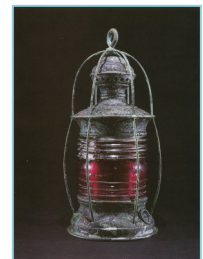


When the *Virginia* steamed out the next morning on March 9, it was with the purpose to finish the *Minnesota*. However, she was met by the *Monitor*, and thus began what is known as the Battle of Hampton Roads. Despite the *Virginia's* much larger size, the *Monitor* demonstrated the advantages of a rotating turret over traditional broadside guns. Over the course of four hours, the two vessels frequently bombarded each other at point-blank range with no substantial damage to either vessel. However, a shell exploded in the view-port of the *Monitor's* pilothouse, temporarily blinding Captain John Worden. The *Monitor* steamed off into shallow water, where the *Virginia* could not follow, to assess the captain's wounds and damage to the ship. The *Virginia's* captain, assuming that the *Monitor* was leaving the battle, withdrew in supposed victory. When the *Monitor* returned to resume the engagement and found the *Virginia* gone, her crew also assumed victory. Although there was no clear victor in the battle, the *Monitor* succeeded in preventing further destruction to the Union blockade.



After the Battle of Hampton Roads, the *Monitor* did not see much action. However, the ship participated in the bombardment of Sewell's Point and in the battle at Drewry's Bluff. In addition, there was a small skirmish in the Appomattox River, but it was considered a failure. Then on Christmas Eve 1862, orders came for the *Monitor* to proceed to Beaufort, North Carolina. On December 29, two massive hawsers were passed from the *Monitor* to the vessel assigned for the ocean tow—the USS *Rhode Island*. At 2:30 p.m., the two vessels got underway. The weather was clear and pleasant.

Just before dawn on December 30, the *Monitor* began to experience a "swell from the southward," and as the day progressed, the clouds increased "till the sun was obscured by their cold grey mantle." Soon the sea began to break over the vessel and the storm grew worse. By 7:30 p.m., one of the hawsers snapped and the *Monitor* began rolling wildly. Below deck, the water level rose and at 10:00 p.m., the red distress lantern was ordered hoisted. At 11:00 p.m., the *Rhode Island* launched rescue boats, and the *Monitor* crew began to abandon ship. Shortly after 1:00 a.m. on December 31, 1862, just off Cape Hatteras, North Carolina, the red lantern was seen from the *Rhode Island* for the last time. Sixteen sailors (four officers and 12 enlisted men of which three were African American and nine were Caucasian) lost their lives that night, but 47 *Monitor* sailors were safely rescued, and they became affectionately known as the "*Monitor* Boys."



NAME: _____

DATE: _____

Sleuthing Into 1862
Historical Synopsis of the USS *Monitor* — Continued

Read *Historical Synopsis of the USS Monitor* to answer the questions below. Place the letters in the bubbles in the answer section at the bottom of the page to identify the unknown sailor.

1. What is the name of the first Civil War Union ironclad?

2. Off the coast of which state did the USS *Monitor* sink during a violent storm?

3. What is the name of the first Civil War Confederate ironclad?

4. Where did the two ironclads meet in an infamous battle of iron vs. iron?

5. What is the name of the ship that was towing the USS *Monitor* when she sank during a violent storm off the East Coast?

6. How many sailors died when the USS *Monitor* sank?

7. How many African American sailors died when the USS *Monitor* sank?

8. What is the exact date of the sinking of the USS *Monitor*?

_____ , _____

9. What item onboard the USS *Monitor* was the last thing seen from the *Rhode Island* before the *Monitor* sank to the bottom of the Atlantic Ocean?

10. What caused the USS *Monitor* to sink?

ANSWER:
