Unit 5/Week 2

Title: *The Unsinkable Wreck Of The R.M.S. Titanic*

Suggested Time: 5 days (45 minutes per day)

Common Core ELA Standards: RI.5.1, RI.5.2, RI.5.3, RI.5.4, RI.5.8, RI.5.10; W.5.2, W.5.4, W.5.9; SL.5.1, SL.5.2; L.5.1, L.5.2, L.5.5

Teacher Instructions

**Before Teaching**

1. Read the Big Ideas and Key Understandings and the Synopsis. Please do **not** read this to the students. This is a description for teachers, about the big ideas and key understanding that students should take away **after** completing this task.

Big Ideas and Key Understandings

The stories told about *Titanic* passengers, along with the observations of modern day scientists, help us understand the events of this tragedy.

Synopsis

*The Unsinkable Wreck of the R.M.S. Titanic* is an example of narrative nonfiction. The story is presented through the eyes of the authors and goes back and forth between documenting for the reader the events of the most famous shipwreck of all time and how modern technology allows us to learn about these events from the past. By using a mini-submarine, named ‘Alvin’, the authors are able to include actual photographs that illustrate for the reader what the text describes.

1. Read entire main selection text, keeping in mind the Big Ideas and Key Understandings.
2. Re-read the main selection text while noting the stopping points for the Text Dependent Questions and teaching Vocabulary.

**During Teaching**

1. Students read the entire main selection text independently.
2. Teacher reads the main selection text aloud with students following along. (Depending on how complex the text is and the amount of support needed by students, the teacher may choose to reverse the order of steps 1 and 2.)
3. Students and teacher re-read the text while stopping to respond to and discuss the questions and returning to the text. A variety of methods can be used to structure the reading and discussion (i.e.: whole class discussion, think-pair-share, independent written response, group work, etc.)

Text Dependent Questions

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| **Text-dependent Questions** | **Evidence-based Answers** |
| Based on the text, why does the narrator feel as though he had, “walked into a dream”?  | The Alvin “rose up the side of the famous bow, now weeping great tears of rust, past the huge anchor and up over the rail. We were the first in more than seventy years to “walk” on the *Titanic’s* deck! The giant windlasses used for raising and lowering the anchor still trailed their massive links of chain, as if ready to lower away.” All of these details support the narrator’s statement that he feels as though he had just walked into a dream. He can’t believe it’s happening and that it is actually real. Many things look as though they are ready to be used. He was so excited he was almost shouting. After years of questing, he had arrived at the “resting place” of the “greatest shipwreck of all time”. |
| Using the timeline, describe what happened to the *Titanic*. | The ship entered an ice field, scraped an iceberg on the starboard side, and the bow of the ship went underwater. The Titanic broke in two and sank. |
| The author uses figurative language to help put a mental picture in the reader’s head. The author states that the Titanic was “weeping great tears of rust.” What image does this put into the reader’s head? What is the effect of using this personification? | “Effortlessly we rose up the side of the famous bow, now weeping great tears of rust”. This is giving the boat the human quality of sadness and it is an image that the boat is crying tears. The fact that rust is red in color can also symbolize bleeding or death. |
| Why did so many people die on the *Titanic*?  | An iceberg was seen too late and there were too few lifeboats for the number of passengers. They didn’t fill the first lifeboats to capacity. Pandemonium ensued on the ship and the evacuation was not organized. The boat sank quickly and eventually broke into 2 pieces. Very few of the third class passengers survived because they were the last to get on the lifeboats, if there was any space left. |
| The author moves between present events on the Alvin and events of the past on the *Titanic*. When the narrator paused at the crow’s nest, what events did this bring to mind? | When the narrator paused at the crow’s nest, it reminded him that Frederick Fleet was on duty at the crow’s nest and was the lookout who warned the bridge: “iceberg right ahead.” He made it to a lifeboat and to safety. |
| What words or phrases describe what First Officer William Murdoch was watching in “excruciating agony”?  | First Officer William Murdoch watched the *Titanic* slowly turn “too late as the iceberg fatally grazed the liner’s side”. It is painful for him to watch because he knows that the boat is not going to turn in time and will strike the iceberg. |
| Doomed means that something is beyond repair or hope. How did captain E.J. Smith know the *Titanic* was doomed?  | The captain could see how quickly the water was pouring into the ship and that the “unsinkable” ship would not be able to survive. |
| What was significant about Minnie and her boys getting on a lifeboat?  | They were some of the only third class passengers to be saved from the sinking. It was also significant because Willie was wearing a hat that made him look older than his 11 years and the lifeboats were for women and children first. |
| The author states, “We saw hundreds of touching reminders of the tragedy”. Give examples from the text and explain how the items are considered touching reminders.  | The narrator sees the ship’s boiler, set upright on the mud with a tin cup resting on it. Champagne bottles lay with their corks still intact, a porcelain doll’s head and most haunting of all, he saw shoes and boots. These are mute reminders of the human cost of the *Titanic* tragedy. |

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|  | **KEY WORDS ESSENTIAL TO UNDERSTANDING** | **WORDS WORTH KNOWING**  |
| **TEACHER PROVIDES DEFINITION** not enough contextual clues provided in the text | tragedy doomed  | materialized maiden debris film sediment ascent plumb |
| **STUDENTS FIGURE OUT THE MEANING**sufficient context clues are provided in the text | questing plunge excruciating agony pandemonium contortedstrange | effortlessly weeping great tears of rust surging mute prevailed |

Vocabulary

Culminating Task

* Re-Read, Think, Discuss, Write
* *How does the author support his point that the sinking of the Titanic is a tragedy? In a well-crafted paragraph, provide at least three specific pieces of evidence, including direct quotations from the text to support your idea.*
	+ Answer: There are many reasons that the sinking of the *Titanic* is referred to as a tragedy. The author states, “…we saw hundreds of touching reminders of the tragedy.” The photographs show evidence of an expensive doll’s head, and a fancy tin cup. These items once belonged to a child who might have died on the *Titanic*. The author points out, “most haunting of all were the shoes and boots.” This part explains that there is evidence that many people died because the shoes are in pairs. The shoes are a way to see how many people lost their lives in this tragic event. Finally, there is text evidence that “champagne bottles lay with their corks still intact.” It is sad to think that these people were traveling and celebrating and never thinking that the ship was going to sink and that they might die. The sinking of the *Titanic* is an example of a tragic event in which many people died and that this could have possibly been prevented if the captain had just seen the large iceberg earlier.

Additional Tasks

* Amelia Earhart disappeared during a flight around the world. Research the technology she was using to complete this flight and write a report in which you explain theories about how it failed her.
	+ Amelia Earhart was flying in a twin-engine plane called the Electra. She made it half way through her journey and her radio communication went out and it is thought that she was unsure of her location. She needed to fuel up on a small island, but she never landed at her destination. It is thought that she must have ran out of fuel.
* Research how underwater explorers use sonar. Create a poster on which you use photos or diagrams of a submersible and label specific features. Write captions that explain how the device helps humans explore the ocean depths.

**sonar** (sō'när) [[key](http://ph.infoplease.com/encyclopedia/ce6pron.html)], device used underwater for locating submerged objects and for submarine communication by means of sound waves. The term *sonar* is an acronym for *so*und *na*vigation *r*anging. The main component of sonar equipment is an electroacoustic transducer that is in direct contact with the water. It is suspended from the hull of a ship or on a cable from a low-flying helicopter. The transducer converts electric energy into acoustic energy (thus acting as a projector), much as does a loudspeaker, and converts acoustic energy into electric energy (serving as a hydrophone), as does a microphone. A pulse of electric energy vibrates the diaphragm of the projector, sending sound waves through the water. These waves are concentrated into a sound beam, which scans the water when the projector is rotated. After the sound wave is emitted, the projector is converted into a hydrophone and listens for an echo. The cycle is repeated periodically. A returning echo is converted into an electric current by the transducer and may be interpreted (for range, bearing, and the nature of the target) aurally or by a cathode-ray tube, as is done with radar signals. The various types of sonar in use can be put into three classes: direct listening, communications, and echo ranging. In direct listening, the object under observation generates the sounds that are received. In communications and echo ranging the sonar must generate its own signals. Sonar operates in the 10- to 50-kilocycle acoustical frequency range. It is used for communication between submerged submarines or between a submarine and a surface vessel, for locating mines and underwater hazards to navigation, and also as a fathometer, or depth finder. Sonar is widely used by commercial fishermen for locating shoals of fish. Research has suggested that sonar used for echo ranging can cause a disorder similar to [decompression sickness](http://ph.infoplease.com/ce6/sci/A0814933.html) (in which nitrogen bubbles form in body tissues) in some beaked whales and dolphins and that this may be linked to strandings of those species.

See J. W. Horton, *Fundamentals of Sonar* (1957); D. G. Tucker, *Underwater Observation Using Sonar* (1966).

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*\*\*\*See attached diagram for sample poster*

* Many people rely on GPS navigation systems. Research what GPS is, how it works, and when it was created, and write an informational article in which you break this information into sections.

**navigation satellite,** artificial [satellite](http://ph.infoplease.com/ce6/sci/A0843738.html) designed expressly to aid the navigation of sea and air traffic. Early navigation satellites, from the Transit series launched in 1960 to the U.S. navy's Navigation Satellite System, relied on the Doppler shift. Based on the shift in the satellite's frequency, a ship at sea could accurately determine its longitude and latitude. The Global Positioning System (GPS), which uses a web of 24 Navstar satellites in 12-hour orbits, employs the more accurate triangulation method to determine position. Each satellite broadcasts time and position messages continuously. Precise to within a few yards, the GPS can also be used for nonnavigation purposes, such as surveying, tracking migrating animals, and plotting the crop yields of small sections of farmland. The former Soviet Union established a Navstar-equivalent system known as the Global Orbiting Navigation Satellite System (GLONASS). Russia's GLONASS will use the same number of satellites and orbits similar to those of Navstar when complete.

See T. Logsdon, *Understanding the Navstar: GPS, GIS, and IVHS* (1995); B. Hofmann-Wellenhoff, *Global Positioning System: Theory and Practice* (1997).

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* Possible titles for additional reading about technology and adventurers:
	+ *To the Top: The Story of Everest* by Stephen Venables
	+ *Dive to the Deep Ocean: Voyages of Exploration and Discovery* by Deborah Kovacs
	+ *The International Space Station: A Journey into Space* by Wolfgang Engelhardt
* There are several ways how the sinking of the Titanic is recounted. Discuss the various accounts of this tragedy. Discuss how these different points of view provide details about this event.

Possible answers:

The timeline shows the events by the day and the hour. The narrative details the events of the night. The present evidence explored by the Alvin shows the aftermath. The photographs show the destruction and the wreckage. The sidebar articles gives the story a human voice.

* Using the text, create a sequence of events describing Alvin’s journey through the wreckage of the Titanic.

1st**:** explored the bow, observed the anchor and “walked” the deck

2nd: explored the well deck, foremast, the bridge

3rd: explored the stern, 1st class entrance

4th: explored the debris field

5th: returned to the surface

Notes to Teacher

You may need to spend some time teaching students functional language of how to cite evidence in the text. Some possible frames to teach:

* + The author states, “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”.
	+ As mentioned on page \_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ On page \_\_\_\_\_\_\_, the author points out “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”.
	+ In the author’s own words, “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”.
	+ Based on what the author says, we know about \_\_\_\_\_\_\_\_\_, we can assume \_\_\_\_\_\_\_\_.
	+ When the author says \_\_\_\_\_\_\_\_\_, it means that \_\_\_\_\_\_\_\_\_\_\_\_.
	+ This sentence/paragraph/part explains that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Additional vocabulary about a ship:

* + sonar – equipment on a ship using sound waves to find objects underwater
	+ bow – front part of ship
	+ foremast – mast nearest the front of ship
	+ bridge – raised part of ship where officers control it from
	+ stern – back of a ship

\*\*\*Sample Sonar Diagram

