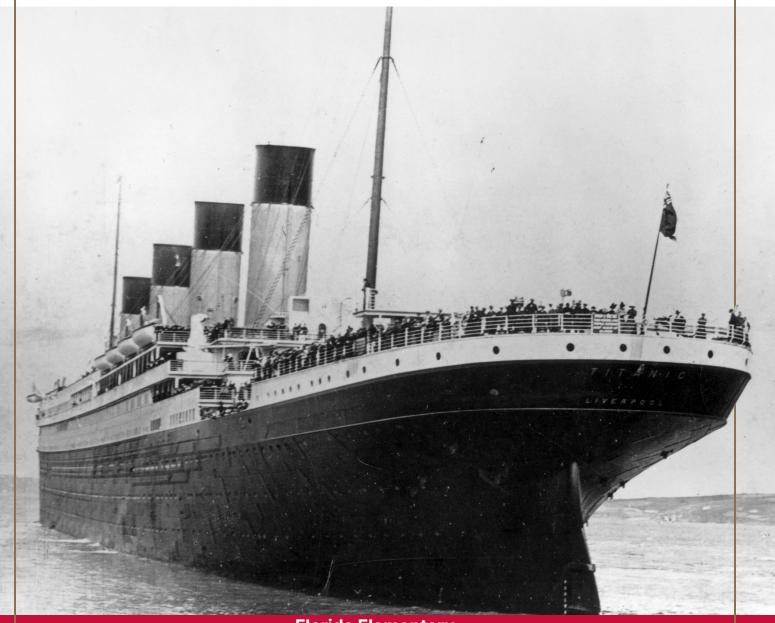
Classroom Lesson Plans

Teacher Guide

and Field Trip Overview

TITANIC THE ARTIFACT EXHIBITION



Florida Elementary Grades 4-6

By Teachers, For Teachers

Real Artifacts, Real Stories, Real People









TitanicLasVegas.com TitanicOrlando.com

DiscoverTitanic.com

Encyclopedia-Titanica.org

TitanicHG.com



3045 Kingston Court, Suite I Peachtree Corners, GA 30071 www.emgroup.com

Teacher credits:

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- Albert Schutzman

Additional credits:

- Encyclopedia Titanica (www.encyclopedia-titanica. org) tells the true story of the real people who designed, built, and sailed on RMS *Titanic*, featuring a biography of every *Titanic* passenger and crew member plus research articles, deck plans, pictures, and movies to help you discover the truth about the greatest shipwreck in history.
- Titanic: Honor and Glory (www.titanichg.com) is a company of researchers attempting to bring *Titanic* back to the surface through stunning 3-D recreations and explorable virtual museums. Visit TitanicHG.com to board *Titanic* yourself and witness her construction, launching, maiden voyage, sinking, and more.

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Introduction

e invite you and your school group to see TITANIC: The Artifact Exhibition and take a trip back in time. Whether attending the Exhibition in person or online with our virtual field trip platform, experience *Titanic* like never before.

Examine real artifacts respectfully recovered from the ocean floor along with room re-creations and personal histories, each highlighting a different chapter in the compelling story of *Titanic's* maiden voyage. Receive a replica White Star Line boarding pass detailing an actual *Titanic* passenger, touch an iceberg, and learn about artifact recovery and conservation in an unforgettable immersive experience. TITANIC: The Artifact Exhibition is a great catalyst for interdisciplinary lessons across science, technology, math, social studies, art, and English curriculums. Many students are familiar with the compelling story behind the Ship's muchanticipated voyage and tragic demise. Innovative educational resources connect this innate fascination to classroom friendly, tech-enriched lessons that will generate and inspire student interest and inquiry beyond your field trip.

Titanic Teacher Guides include activities for elementary, middle, and high school levels aligned to the state and national education standards. Each Guide has 10 separate lessons which can be adapted for any age and ability level. These lessons, which come with ready-to-copy student activity pages, informational guides, and worksheets, are designed to be used while teaching *Titanic* and can be integrated at the before, during, and after stages of your Exhibition field trip. Lessons can



be taught independently or grouped into larger units. Find additional educational materials on our website, DiscoverTitanic.com. There, you can find student readings, research, and/or reference materials as well as additional Exhibition materials to prepare for field trips.

This Teacher Guide features a variety of methods and projects for those educators who strive for differentiated instruction in their classrooms. While learning about *Titanic*, students can analyze primary sources, explore history through music, perform historical reenactments, sharpen their geography skills, and find connections to the Ship's story within their own communities and families. Lessons incorporate both collaborative and independent projects and hands-on learning strategies while reaching all skill levels and promoting real-world application. Thank you for sharing this innovative learning experience with your students. We look forward to seeing you at TITANIC: The Artifact Exhibition.

Getting Ready

Gallery Overview

very venue for TITANIC: The Artifact Exhibition has a unique design layout. For teacher planning, the following galleries and topics are foundational to the Exhibitions.

The **Construction Gallery** focuses on the design and invention of *Titanic*. It showcases the shipyard of Harland & Wolff, who strove to be the most technologically advanced and progressive shipbuilder in the world.

The **Departure Gallery** allows students to feel what it was like to set sail on *Titanic's* maiden voyage on April 10, 1912.

After boarding *Titanic*, students enter the **Passenger Gallery**. Brass railings and a rich carpet runner lead down an elegant hallway and past a series of numbered doors. The focal point of this gallery is the **First Class Stateroom**. This cabin contains re-creations of *Titanic* furniture along with examples of Edwardian clothing and personal belongings of first-class passengers in 1912.

The **Verandah Café Gallery** features first-class china, crystal, dinnerware, and silverware. Menus from the restaurants of *Titanic* are displayed.

In the **Passenger Gallery**, students learn individual stories and view personal artifacts recovered from the ocean floor.

The **Third Class Cabin Gallery** includes a recreation of the simple accommodations offered to those passengers traveling in steerage. Though basic, these cabins provided much greater comfort than any other ship at that time.

By touching the frigid wall of ice in the **Iceberg Gallery**, students will discover how cold it was in the North Atlantic on the night *Titanic* sank. In -2° Celsius (28° Fahrenheit) water, there was little chance for survival. Death from hypothermia came quickly.

The **Discovery Gallery** shows how *Titanic* was found and what lies in the debris field. Students will learn about artifact recovery and conservation efforts led by RMS Titanic, Inc., who has been granted exclusive salvage rights with custodianship over the wrecksite.

The **Memorial Gallery** lists over 2,200 names of those who were traveling on board *Titanic* and denotes those who survived or were lost. Students can find the name from their boarding pass on this wall.

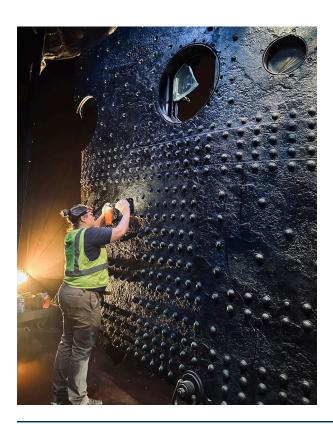


Preparing to Visit the Exhibition

What You Will See

Titanic was conceived in 1907 and met with disaster in 1912. The story has been told and retold, but never more poignantly and passionately than by the artifacts in this Exhibition. Painstakingly recovered from the debris field surrounding the wrecksite and artfully conserved, these three-dimensional objects represent the vessel and the 2,208 souls who journeyed with Titanic into history. Whether in person or on our virtual field-trip platform, explore the galleries in the Exhibition, featuring real artifacts, room re-creations and personal histories. Each highlights a different chapter in the compelling story of Titanic.

Explore DiscoverTitanic.com for additional *Titanic* information.



What Students Want to Know About Artifacts

Who is RMS Titanic, Inc.?
What do they do?

RMS Titanic, Inc.'s purpose is to preserve the memory of *Titanic* and of all who sailed on the Ship. As an affiliate of Experiential Media Group 'EMG', LLC, the Company was granted salvage rights to the wreck of the RMS Titanic by a United States Federal Court order in 1994 and reconfirmed again in 1996, meaning the Company has exclusive rights to recover the artifacts from the wrecksite. Titanic's artifacts are used for scientific and historical research and placed on public display through TITANIC: The Artifact Exhibitions. RMS Titanic, Inc.'s mission is to preserve the legacy of Titanic's maiden voyage, subsequent sinking, and the memory of her passengers and crew through care and display of our recovered artifacts, comprehensive educational programs, innovative exhibitions, research and recovery initiatives, wrecksite imaging and analysis, and ongoing Titanic collaborations.

Are the artifacts in the Exhibition real?

Yes. About 5,500 *Titanic* artifacts have been carefully and respectfully recovered from the ocean floor and placed on public display in TITANIC: The Artifact Exhibitions around the world. Only exhibitions with "artifacts" in the title are centered on real, recovered *Titanic* artifacts.



How are these artifacts recovered from *Titanic*?

Underwater submersibles are used to recover artifacts from the ocean floor. These machines are equipped with mechanical arms capable of scooping, grasping, and recovering the artifacts, which are then either placed in sampling or lifting baskets. The submersible crew compartment accommodates three people—a pilot, a co-pilot, and an observer—who each have a 1-foot-thick plastic porthole between themselves and the depths. The submersibles can operate and deploy a remotely operated vehicle, or ROV, with a 110-foot tether which is then sent inside the wreck to record images. It takes over two and a half hours to reach the *Titanic* wrecksite. Each dive lasts about 12 to 15 hours with an additional two hours to ascend to the surface.

How are the artifacts conserved?

The conservation process to stabilize and treat artifacts immediately begins once they are exposed to air. Artifacts are cleaned with a soft brush and placed in a foam-lined tub of water. The artifacts go to the conservation laboratory where they undergo desalination and further treatment to preserve them. Metal objects are placed in a desalination bath and undergo the first steps of electrolysis, a process that removes negative ions and salt from the artifact. Electrolysis is also used to remove salts from paper, leather, and wood. Chemical agents and fungicides are used to remove rust and fungus.

Once artifacts made of wood and leather begin to dry, they are injected with a water-soluble wax which fills artifact capillaries previously occupied by water and debris. Artifacts made of paper are freeze-dried to remove water and treated to protect against mold. At this point, conservation for exhibition is complete. All recovered artifacts are carefully maintained by trained professionals in temperature, humidity, and light-controlled environments.



Are there still dead bodies on the bottom of the ocean?

No skeletons remain at the wrecksite. Any bodies of passengers or crew that may have been carried to the seabed with the wreck were consumed by marine life like fish and crustaceans.

What is stewardship, and how does it relate to *Titanic*?

Stewardship is defined as the careful and responsible management of something entrusted to one's care. Since RMS Titanic, Inc. was entrusted with the wreck of *Titanic*, it is the Company's responsibility to respectfully oversee the historic site. RMS Titanic, Inc. works with professionals to document and preserve the Ship's legacy through artifact recovery, underwater mapping, and permanent and internationally traveling TITANIC: The Artifact Exhibitions. These real artifacts on public display are a testament to the Company's continued commitment to conservation and stewardship, ensuring *Titanic* and her passengers are always remembered.



Chaperone Responsibilities

During the Field Trip

As a chaperone, you are responsible for helping your students get the most out of this unique learning experience. To keep order, you need to stay with your assigned group of students throughout your visit. If you leave a gallery, they leave a gallery. If you are still in a gallery, they are still in a gallery. Please supervise your students in the retail area and in the restrooms as well.

The retail shop gives teachers and students the option to bring home *Titanic* souvenirs from their Exhibition visit. A variety of items and price points can be found in the gift shop. Some of the more popular items in the store within a \$1-\$15 range include *Titanic* pencils, models, and t-shirts, and items within a \$10-\$40 range are *Titanic* books, DVDs, and posters.

While your students are busy learning, discovering, questioning, and reflecting, we ask that you help us reinforce some basic rules of museum etiquette. Please:

- Keep your voices low.
- Do not gather at the entrances or exits to the galleries.
- Keep the flow of traffic open for our other patrons.
- Do not lean on walls or glass cases.
- Use a notebook or a clipboard to fill out assigned student papers or activities. Do not use walls or glass cases to write.

We know that this is a fascinating Exhibition to view, but please remember that your top priority is to monitor your students and keep them focused so that they can meet their teacher's learning expectations. We greatly appreciate your participation in making this a memorable field trip for everyone from your school.



Thank You!

Elementary Guide at a Glance

he lessons in this Elementary School Teacher Guide are specifically geared toward teaching the story of *Titanic* thematically to grades 4-6, aligned to state and national standards. As you will discover through this guide, *Titanic* is interdisciplinary. The curriculum has lessons targeting engineering, chemistry, design, outreach, writing, music, history, and geography. *Titanic* has an ongoing legacy since 1907 to today and can become the hook for a variety of lessons across all ages.

We understand classroom constraints, so this guide is built to be completely customizable. Select the lessons that best fit your needs. For example, a teacher may teach lessons 1, 4, and 7, if wanting only the basic history up to 1912. Someone wanting to focus exclusively on artifacts may choose lessons 9 and 10. Teachers who want to teach a comprehensive *Titanic* story may opt to teach all 10 lessons, which we recommend. Lessons can be simplified and extended to meet student needs. For this reason, teachers may find it helpful to consult the other level guides (Middle School, aimed for grades 7-8, and High School, targeted for grades 9-12). All lessons are designed for modern classroom technology and conveniences, so the access and use of 1:1 student devices is implied within the guide, although not strictly required.

This Guide at a Glance is here to help you understand the different components found within each lesson plan, so you can maximize its impact in your classroom.

The lessons in this guide are designed around 10 *Titanic*Content Themes, consistent across all three grade levels. This presents the overall focus of the lesson and helps you choose which lessons you want for students.

At the top of each lesson are targeted **Skills** and **Subjects**, making the possibilities for crossconnections endless.

Objectives and **Essential Questions** help guide the lesson for teachers, providing the framework for teachers to customize for their students.



A *Titanic*-related **Quote** was chosen to match the *Titanic*Theme and can be integrated into the lesson per teacher discretion or used as an independent source of engagement.

To help teachers with preparations, **Time** and **Materials** are included, which can give an estimation that may vary depending on the classroom and students.

The **Assessment** section overviews the diagnostic, formative, and/or summative assessments teachers may use to evaluate student learning.

As a prescriptive curriculum, **Procedures** outline every step of the lesson with talking points, learning summaries, potential student responses, and optional extensions. Lessons are intended to be customizable, where a teacher can choose to teach sections of the plan, incorporate some of the activities, expand on others, or fully implement the entire lesson.

Icons are used to denote important sections for the teacher. indicates steps with student

assessments.



indicates steps with main ideas or content summaries.

Procedures

Introduce Titanic as The Ship of Dreams. Ask and discuss with the class, "Why do you think she
was called that?" Note that maritime tradition refers to ships as female (she/her).

Titanic was big, grand, and the largest ship built at that time. She was fancy and luxurious.



2. Divide students into groups by numbering students 1-4, assign each student a number, and explain each group will research either Titanic's design or construction and take notes on the How Titanic was Built Foldable Ship graphic organizer to present to the class. (These graphic organizers will later be cut out, folded, and glued to become 3-0 models of the Ship, Titanic.)
a. Correspond number to these roles:
1. Captain: Presents notes to the class
2. Chief Officer. Reads and researches
3. Lockout: Guides questions and researches
4. Quartermaster: Keeps group on task and watches time
b. Let students chose (or assign) which topic:
1. Titanic's design, or
1i. Titanic's construction
3. Research and note-taking time:
0. Titanic Design
1. Concise history of the inception of Titanic over a dinner party in 1907:
https://www.thehistorypress.co.uk/Titanic/building-Tita



Legend goes, in the Downshire House in London, Harland & Wolff Chairn Pirrie had dinner with White Star Line managing director J. Bruce Ismay in 1907. They created the idea for the Olympic-Class liners, the largest ships built, increasing 50 percent in size from the competitor's largest and fastest vessels, Cunard's Lusitania and Mauretania

Magazine covering a variety of Titanic topics: RMS Titanic: The True Story. A360 Media. 2023. ISBN: 25274-74254. Pg 13-19.



Lord william Prine of the Adminia wordy shapping and Bruce Islandy of white State Loconceptualized the Olympic-Class Liners (Olympic, Titanic, and Britannic) to compet against Cunard Line, their largest competitor, and other companies. They were desk to be the most luxurious ship across all classes. Ships were needed for passenger or

TITANIC THE REPORT OF THE PERSON OF THE PERS

rel for leisure (first class), business (all classes as the only way to cross the ocean back in 1912), and immigrants wanting to start a new life (third class) List of facts and figures of *Titanic*'s construction: https://www.DiscoverTitanic.com/Titanic-history/building-the-legend/

Elementary Classroom Lessons

Please see the optional **Extension** Activities for related ways to extend the lesson and Titanic Theme or see the *Titanic* Project Ideas Page for general additional suggestions.

At the end of each lesson is a Resource Materials list, filled with related books, websites, videos, articles, organizations, and other informational materials to extend teacher and student research.

Design/Build Additional Activities and Resources

- Design ship blueprints
 Connect Titanic cabin design to actual
- passenger on boarding pass Create a timeline with pictures of *Titanic*'s
- Build keel of Titanic (paper, clay, or pipe cleaners)

 Korman, Gordon. Titanic: Book One
- suio xeel or izone (paper, ciay, or pipe cisaners)

 Test water displacement principle with floating
 wood piece in two aluminum pans, where a
 smaller one with water to the rim is placed
 inside a larger empty pan.

 Or use beakers and objects:
 https://emonimeadventures.com/lego
 -displacement-experiment-for-kids/
- Research Harland & Wolff work conditions and write a letter to Lord William Pirrie (Chairman) of Harland & Wolff) Which companies were Harland & Wolff's competition? Which companies were White
- Star Lines' competition? Research and compare shipbuilding and travel companies during the early 1900s. Create a trifold pamphlet advertising each.

Resource Materials:

- Titonic building summary: https://www.ulstertransportmuseum.org/stories/Tkan
 Young student-friendly Titonic facts and figures from BBC-nttps://www.bbc.co.uk
 /bitesize/topics/zga/b8p3/articles/znggliy
 National Geographic Belfast Building Titor
 Video for Students: https://education.
- nationalgeogra -belfast-built/ National Geographic time-lapse video of
- Titanic's construction: https://www.youtube .com/watch?v=ALV1fc3LL3A TikTok KJFish, 1st Class Suites
- https://www.tiktok.com/@kjfish/ video/6868747885375261957?lang=en "Millionnaire Suite"- https://www.tiktok.com kjfish/video/6869142332181138694?lang=



https://www.tiktok.com/@raf_avilan /video/89719827895288496697lang Jones, Molly. The Story of Titanic's Cf. Ismay. Mankato: Child's World, 2015. ISBN: 978-1634074636.

Unsinkable, New York: Scholastic, 2011. ISBN: 978-0-545-12331-0.

 Shepherd, Jodie. Building the Titanic New York: Children's Press, 2023. A True Book Series. RMS Titanic: The True Story. A360 Media. 2023. ISBN: 25274-74254.

Florida State Education Standards:

A.1, ELA.6, C.4.1 Conduct research to answer a question, organizing information about the topic and using mutified resibles and valid sources.

ELA.4, B.3, ELA.5, B.3, Compare and contrast primary and secondary sources en



Elementary Classroom Lessons

Within the lesson plan are **Potential Student Responses**

in boxes and handwriting-styled font. Text is written to mimic how students might respond. This helps you predict student answers or guide toward certain concepts.

Reproducibles, Handouts, and Worksheets are indicated in bold within the procedures as well as an image icon showing the needed reproducible to help you find it within the guide. All reproducibles subsequently follow the corresponding lesson plan.

The procedures include Main **Idea or Content Summary** talking points indicated by gold font and a lightbulb icon. This helps you know what concepts or ideas you want your students to understand or take away. This section can also help you understand *Titanic* content and history taught in the lesson, so you can feel confident while teaching.

While all lessons are aligned to national standards, these lesson plans are specifically aligned to Florida State Standards, listing a condensed version of highlighted target skills within the lesson with an expanded version accessible online.

Don't teach in this state? Substitute your own state standards based on the categorization of summarized skills and subjects.



Classroom Lesson Plans

Elementary School, Recommended Grades 4-6

1. Innovation 1912: The How and Why of <i>Titanic's</i> Construction
2. 1912 Immigration: The Allure of America
3. Being Edwardian: Understanding Travel in 1912
4. Are We There Yet?: Passing Time On Board <i>Titanic</i>
5. Pass It On: The Louise Gretchen Kink Pope Story
6. Being in Charge: Captain Smith's Final Voyage 51
7. Tossing and Turning: An Iceberg's Journey 57
8. Did That Really Happen?: <i>Titanic</i> Importance of Accuracy 63
9. Keeping a Record: Mapping Recovered <i>Titanic</i> Artifacts 69
10. Conserve vs. Restore: Preserving <i>Titanic</i> 's Artifacts and Legacy



Innovation 1912: The How and Why of *Titanic*'s Construction

Titanic Theme: Design/Build of Ship

Skills: Reading; Researching; Historical Time Period Interpretation; Journal Writing; Comparisons; Group Work; Presenting; Notetaking; Following Instructions; Model Building from a Template

Subjects: Social Studies; Speaking/Listening; Reading Informational Text; Reading Foundational Skills; Writing; Language; Visual Arts



Objective:

Students will describe how and why *Titanic*was constructed by taking notes and following
instructions to build a miniature of *Titanic*based on a template.



- How did the creation of *Titanic* (as part of the three *Olympic*-Class Liners) serve the needs of society back in the early 1900s?
- Where did the idea of *Titanic* come from and why was she designed and built the way she was?
- What are the three separate stages of Titanic's construction at the Harland & Wolff Shipyard in Belfast, Northern Ireland?

Time: 40 minutes



Assessment:

- Foldable Graphic Organizer
- Student Journal Response



"It is difficult to convey an idea of the size of a ship like the *Titanic*, when you could actually walk miles along decks and passages, covering different ground all the time . . . it took me fourteen days before I could with confidence find my way from one part of that ship to another."

—Charles Herbert Lightoller, Titanic Second Officer



Materials:

- How *Titanic* was Built:
 Foldable Ship graphic organizer
- Any additional *Titanic* articles and references of interest
 - Magazine: RMS Titanic: The True Story. A360 Media. 2023.
 ISBN: 25274-74254.
 Pg 13-19.
- General supplies (pencil,

paper, etc.)



Procedures

1. Introduce *Titanic* as The Ship of Dreams. Ask and discuss with the class, "Why do you think she was called that?" Note that maritime tradition refers to ships as female (she/her).

Titanic was big, grand, and the largest ship built at that time. She was fancy and luxurious. Titanic helped people achieve their dreams and goals because ships were the only way to cross the ocean during that time. For immigrants, Titanic made their dreams of a new life and opportunity come true.



- 2. Divide students into groups by numbering students 1-4, assign each student a number, and explain each group will research either *Titanic*'s design or construction and take notes on the **How** *Titanic* was **Built: Foldable Ship** graphic organizer to present to the class. (These graphic organizers will later be cut out, folded, and glued to become 3-D models of the Ship, *Titanic*.)
 - a. Correspond number to these roles:
 - 1. Captain: Presents notes to the class
 - 2. Chief Officer: Reads and researches
 - 3. Lookout: Guides questions and researches
 - 4. Quartermaster: Keeps group on task and watches time
 - b. Let students choose (or assign) which topic:
 - i. Titanic's design, or
 - ii. Titanic's construction
- 3. Research and note-taking time:
 - a. Titanic Design
 - i. Concise history of the inception of *Titanic* over a dinner party in 1907: https://www.thehistorypress.co.uk/Titanic/building-Titanic/



Legend goes, in the Downshire House in London, Harland & Wolff Chairman Lord William Pirrie had dinner with White Star Line managing director J. Bruce Ismay in 1907. They created the idea for the Olympic-Class liners, the largest ships built, increasing 50 percent in size from the competitor's largest and fastest vessels, Cunard's Lusitania and Mauretania.





Lord William Pirrie of the Harland & Wolff Shipyard and Bruce Ismay of White Star Line conceptualized the Olympic-Class Liners (Olympic, Titanic, and Britannic) to compete against Cunard Line, their largest competitor, and other companies. They were designed to be the most luxurious ship across all classes. Ships were needed for passenger ocean travel for leisure (first class), business (all classes as the only way to cross the ocean back in 1912), and immigrants wanting to start a new life (third class).

- b. Titanic Construction
 - i. List of facts and figures of *Titanic*'s construction: https://www.DiscoverTitanic.com/Titanic-history/building-the-legend/





Thomas Andrews was the Managing Director of Harland & Wolff. Titanic took approximately 26 months to build. Titanic was launched from the slipway, ending her first construction stage, on May 31, 1911.

ii. Overview of *Titanic's* construction at the Harland & Wolff Shipyard in Belfast, Northern Ireland: https://Titanicfacts.net/building-the-Titanic/



Titanic was Vessel #401. She had three main stages of construction: (1) Slipway Construction with Arrol Gantry, March 31, 1907-May 31, 1911; (2) Fitting Out Wharf, May 31, 1911-March 1912; (3) Thompson Dry Dock, March 1912-April 2, 1912.

- **3.** Let the students (Captains) report back to the whole class. Students should write new information from other groups' reports onto their foldable graphic organizer.
- **4.** Show a photograph of *Titanic* after her construction. Use the graphic organizer to fill in blank spaces and label the main parts of the ship (numbered on graphic organizer):
 - a. Hull (the main body of the ship)
 - b. Funnels (also called smokestacks, top cylinders that allow smoke to exit)
 - c. Upper Decks (top levels with lifeboats, first class amenities, and bridge)
 - d. Keel (backbone or spine of the ship)
- 5. Students will fold their graphic organizer using the instructions to create a model ship.
 - a. Using scissors, cut on the solid black line (there will be two pieces: funnel and ship)
 - b. Fold along the dotted lines.
 - c. Glue the shaded, lined areas on the rounded fold tabs. Glue the tabs onto ship's hull.
 - d. Glue funnels to the ship by connecting the shaded areas together.
 - e. Students may color ship models beforehand, per teacher discretion.
- **6.** Summarize the lesson to answer the following questions, "Where did the idea for *Titanic* come from?" and "How was it built?"



According to legend, in 1907, Lord William Pirrie of Harland & Wolff Shipyard and Bruce Ismay of White Star Line came up with the idea for the Olympic-Class Ships (Olympic, Titanic, and Britannic). These ships were intended to be the largest and grandest ships to compete against their competitors, like the Cunard Line. Titanic was built between 1909-1912 in three stages: Slipways, Fitting Out Wharf, and Dry Dock.

7. Ask, "Have you ever wanted to create something? What was that like and how could it connect to *Titanic*?" and "What did you find interesting about her construction?"

Yes, I have created something. It took time, energy, patience, a plan, and fixing mistakes, which was probably also used to create *Titanic*. I thought the shipyard's size and thousands of workers was interesting because it took three years to build the largest and grandest ship in the world. *Titanic* was one of three ships. It took three stages to build *Titanic*.



8. Journal: Imagine you are Thomas Andrews, the designer of Harland & Wolff, and you must explain how you built *Titanic*. What would you say about *Titanic* and her construction? How was *Titanic* built? What surprises were encountered while creating this ship? How do you (as Thomas Andrews) feel about creating *Titanic*?



Design/Build Additional Activities and Resources

Optional Extension Activities:

- Design ship blueprints
- Connect *Titanic* cabin design to actual passenger on boarding pass
- Create a timeline with pictures of *Titanic*'s inception and construction
- Build keel of *Titanic* (paper, clay, or pipe cleaners)
- Test water displacement principle with floating wood piece in two aluminum pans, where a smaller one with water to the rim is placed inside a larger empty pan.
- Or use beakers and objects: https://lemonlimeadventures.com/lego -displacement-experiment-for-kids/
- Research Harland & Wolff work conditions and write a letter to Lord William Pirrie (Chairman of Harland & Wolff)
- Which companies were Harland & Wolff's competition? Which companies were White Star Lines' competition? Research and compare shipbuilding and travel companies during the early 1900s. Create a trifold pamphlet advertising each.

Resource Materials:

- Titanic building summary: https://www .ulstertransportmuseum.org/stories/Titanica
- Young student-friendly *Titanic* facts and figures from BBC: https://www.bbc.co.uk /bitesize/topics/zg4b8p3/articles/zng8jty
- National Geographic Belfast Building Titanic
 Video for Students: https://education.
 nationalgeographic.org/resource/ship
 -belfast-built/
- National Geographic time-lapse video of Titanic's construction: https://www.youtube .com/watch?v=ALV1fc3LL3A
- TikTok KJFish, 1st Class Suites: https://www.tiktok.com/@kjfish/ video/6868747885375261957?lang=en
- "Millionnaire Suite"- https://www.tiktok.com/@ kjfish/video/6869142332181138694?lang=en

- TikTok Raf_Avila, Swimming Pool: https://www.tiktok.com/@raf_avila /video/6971982789528849669?lang=en
- Jones, Molly. The Story of Titanic's Chairman Ismay. Mankato: Child's World, 2015.
 ISBN: 978-1634074636.
- Korman, Gordon. *Titanic: Book One: Unsinkable*. New York: Scholastic, 2011.
 ISBN: 978-0-545-12331-0.
- Shepherd, Jodie. Building the Titanic. New York: Children's Press, 2023. A True Book Series.
- RMS Titanic: The True Story. a360 Media.
 2023. ISBN: 25274-74254.

Florida State Education Standards:

SS.5.A.1.1 Use primary and secondary sources to understand history.

SS.6.W.1.3 Interpret primary and secondary sources.

SS.6.W.1.6 Describe how history transmits culture and heritage and provides models of human character.

ELA.4.C.4.1, ELA.5.C.4.1, ELA.6.C.4.1 Conduct research to answer a question, organizing information about the topic and using multiple reliable and valid sources.

ELA.4.R.3.3, **ELA.5.R.3.3** Compare and contrast primary and secondary sources related to the same topic.

ELA.4.C.1.3, ELA.5.C.1.3, ELA.6.C.1.3 Write to make a claim supporting a perspective with logical reasons, relevant evidence from sources, elaboration, and an organizational structure with varied transitions.

SC.35.CS-PC.3.1 Identify digital information resources used to answer research questions (e.g., online library catalog, online encyclopedias, databases, and websites).

SP.PK12.US.1.1b Apply skills and strategies, such as decoding multisyllabic words; analyzing vocabulary, including roots and affixes; making associations; and using visual imagery and mnemonics, to recall and understand information from a variety of media sources.

VA.5.0.2.2 Use a variety of sources for ideas to resolve challenges in creating original works.

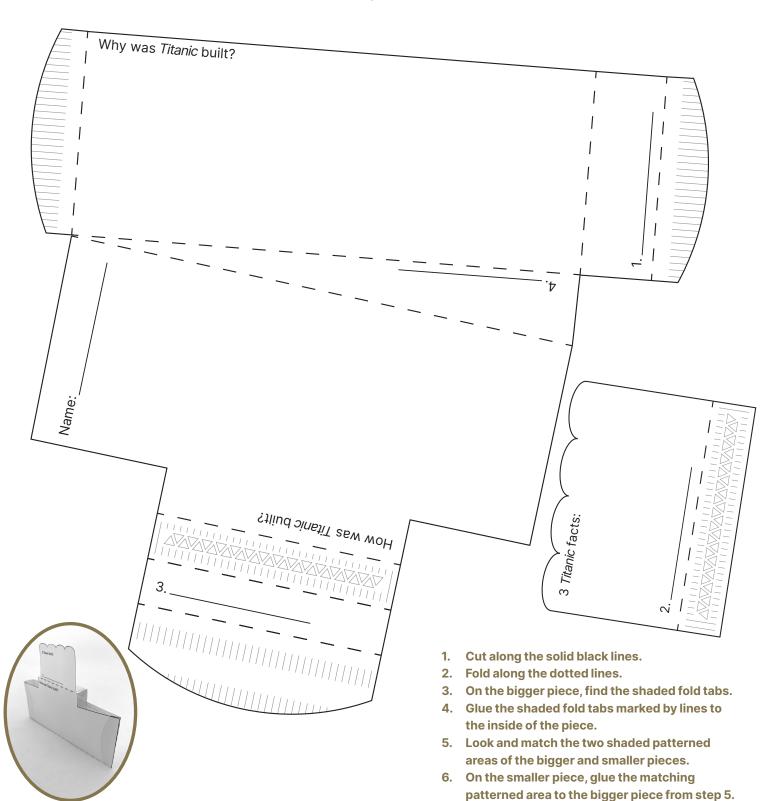
VA.4.S.1.3, VA.5.S.1.3, VA.68.S.1.3 Create artworks to depict personal, cultural, and/or historical themes.





How Titanic was Built: Foldable Ship

Directions: Write at least 3 facts under each section: How *Titanic* was built, Why *Titanic* was built, and 3 *Titanic* facts. Label the blank spaces using: Hull, Funnels, Upper Decks, and Keel.





2. 1912 Immigration: The Allure of America

Titanic Theme: Voyage Preparation/Route

Skills: Reading; Writing; Drawing; Graphing, Interpreting Graphs; Creating Computer Graphs; Calculating Numerical Computations; Comparing/ Contrasting; Time Lapse

Subjects: Social Studies; Edwardian Time Period History; Reading Informational Texts; Math; Visual Arts; Writing; English



Objectives:

- Students will examine the immigration experience by drawing and comparing what we would pack to travel today versus what Edwardian passengers packed.
- Students will interpret *Titanic*'s passenger data by graphing the representation of classes.

Essential Questions:

- Why did people travel on ships in 1912?
- How did ships like *Titanic* contribute to immigration to the United States during the early 19th century?
- How did your reason for travel affect packing?

Time: 45 minutes



Assessment:

- Packing Then vs. Now Worksheet
- Graphing the Numbers: People on *Titanic* Worksheet and Extension Questions
- Student Journal Response
- Compare/Contrast Essay Response (Optional)



"Originally, my husband and I planned on making the trip on board the *Mauretania*, but we decided to wait a few months so we could make the crossing aboard the luxury liner *Titanic*. Married just a few months, Pekko and I decided to leave Finland and start a new life in America."

—Elin Hakkarainen, Titanic Third-Class Passenger



Materials:

- Packing Then vs. Now Worksheet
- Edwardian Information Guides
- Graphing the Numbers: People on *Titanic* Worksheet (and Extension Questions)
- Coloring utensils
- General supplies (pencil, paper, etc.)



Procedures

1. Ask students, "Why do people travel today?" and "What types of transportation do people use to travel far distances now?"

People travel for vacation, work, or if they are moving somewhere. People use cars, airplanes, buses, trucks, and sometimes trains. There are many ways and options to travel.



- 2. Pass out **Packing Then vs. Now** Worksheet. Explain that they will fold it in half vertically and, on the left "now" side, write and/or draw all the things they would like to pack for a 7-day trip in the box. They will fill out the other half later.
- 3. Ask students, "On your worksheet, what did you pack for your 7-day trip?"

I would pack my favorite things and things I need, like clothing, toys, games, food, pictures, phone, friends, passport, etc.



4. As a class, discuss why and how people travel today, leading to travel and immigration in the early 1900s. Have students consider similarities and differences between how and why they travel now to how and why people traveled in the early 1900s. Ask, "Why do you think people traveled in the early 1900s, especially to the United States?" and "What do you think people used to travel far distances back then?"

People traveled for vacation or fun. They traveled for work. Some people were immigrating and moving to new places to start a new life. People used horses and buggies or carts. They used trains or ships, as ocean liners were the only way to cross the ocean back then.

- **5.** Explain that there are similarities and differences between now and then and that the students will be discovering those through this lesson. Introduce the three different classes/categories for travel in the early 1900s: first class (vacation); second class (work); and third class (starting over and immigration). Explain the concept of immigration as leaving one's home in a country to go to a new, different country to create a new home and life.
 - a. Optional: students read about the immigration experience through Ellis Island, New York, in the early 1900s: https://www.statueoflibertytour.com/blog/ what-life-was-like-for-an-ellis-island-immigrant/
- **6.** Notice the **Packing Then vs. Now** Worksheet has 3 categories that students can circle: First Class, Second Class, and Third Class. You can choose, have students choose, or match categories to boarding card passes received from TITANIC: The Artifact Exhibition. Recommend that there be a balance between social classes in the classroom for greater discussion later. Based on the category, break students into groups: "First Class: Leisure," "Second Class: Work," and "Third Class: Starting Over with Immigration."



- 7. Pass out Edwardian Information Guides that match their worksheet category. In groups, students read the guides and use the information to complete the Packing Then vs. Now worksheet, packing for a 7-day journey during 1912 based on their given class and travel reason. Then unfold the worksheet and answer the two questions at the bottom of the page.
- **8.** Once completed, discuss similarities and differences between the two periods of travel and what students wrote at the bottom of the page. May expand this into an optional compare/contrast essay response, per teacher's discretion. If able, link the 1912 Edwardian era and reasons for travel to the Exhibition and the *Titanic* artifacts recovered from suitcases and the ocean floor.
 - a. Ask, "How do social class and reason for travel affect the way people would pack, especially if immigrating to the U.S.?"



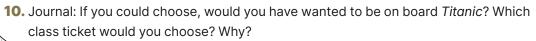
Each class could afford different things. First class had a lot of luggage for many outfits and valuables. Second class was more practical with work-related items. Third class packed essentials and everything they had, which was not much compared to first class. If someone is immigrating, they would bring what they could carry. They would make sure to bring important, sentimental heirlooms, cultural objects, and/or photographs.

b. Ask, "How does the time period affect the way they pack?"

People back then and people today would have different ideas on what is important to pack. People in 1912 do not have the same things as we do today. We have technology that was not available back then. We would probably take a lot more comfort items like gaming systems and toys.



- 9. Continue travel and immigration conversation with Graphing the Numbers: People on *Titanic* worksheet. Optional Extension Questions provided. Have students investigate what the numbers mean and how they are visually represented in graphs. Students will use a device, sheet, pencil, and coloring utensils to interpret *Titanic*'s passenger data by visually graphing it, using the site below:
 - a. National Center for Education Statistics Kids' Zone Create a Graph: https://nces.ed.gov/nceskids/createagraph/default. aspx?ID=c27f870129e64b44a7ca95bfc4de550e
 - i. May use Graphing the Numbers: People on *Titanic* (and Extension Questions) as homework component.





Answers to Graphing the Numbers: People on Titanic Extension Questions:

- 1. \$19,312
- 2. \$28,360
- 3. Third Class by \$9,048
- 4. 386 more men than women and 658 more men than children
- 5. 1,302 people
- 6. \$140
- 7. \$4,200
- 8. Answers may vary



Immigration Additional Activities and Resources

Optional Extension Activities:

- Read aloud books about immigration:
 - Hest, Amy. When Jessie Came Across the Sea. Cambridge: Candlewick Press, 2003. ISBN: 9780744569636.
 - > Bunting, Eve Dreaming of America: An Ellis Island Story. Mahwah: Bridge Water Books, 1999. ISBN: 9780439698.
 - Towler, Paige. Journey through Ellis Island. New York: DK Publishing, 2024. ISBN: 9780744094336.
- Map Titanic's "ports of call"
- Research Ellis Island, connect with modern day immigrants, and research changes in immigration: https://teacher.scholastic.com/activities/immigration/tour/index.html
- Library of Congress: Child Immigrant
 Experiences of Early 1900s and Today
 (multi-day lessons) https://drive.google.com
 /file/d/1tuNyq0Vu5d1HHNCmWnmc57jM0saQ_xRG/view
- Research how White Star Line advertised to people (specifically steerage). Students create an original advertisement.
- Research student ancestry, genealogy, or heritage to compare to *Titanic*.

Resource Materials:

- Generate a *Titanic* Ticket of a real passenger (if boarding passes not available): https://www.encyclopedia-titanica.org/titanic -tickets/#google_vignette
- TikTok KJFish, Third Class Life: https://www .tiktok.com/@kjfish/video/68717556086 72963845?lang=en
- Immigration to U.S.A. Process and Logistics: https://www.history.com/news/immigrants -ellis-island-short-processing-time
- Baggage room on Ellis Island tells what immigrants brought: https://teacher.scholastic. com/activities/immigration/tour/stop3. htm#:~:text=Steerage%20passengers%20

- traveled%20with%20bundles,sentimental%20 keepsakes%20and%20family%20heirlooms. (Make sure to click "Did you know?" about steerage luggage.)
- First Class luggage and belongings (based on insurance claims) of Charlotte Cardeza: https://cruisingkids.co.uk/ Titanics-1st-class-luggage/

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SS.6.W.1.6 Describe how history transmits culture and heritage and provides models of human character.

ELA.4.C.4.1, ELA.5.C.4.1, ELA.6.C.4.1 Conduct research to answer a question, organizing information about the topic and using multiple reliable and valid sources.

VA.4.S.1.3 Create artworks that integrate ideas from culture or history.

SC.35.CS-PC.3.1 Identify digital information resources used to answer research questions (e.g., online library catalog, online encyclopedias, databases, and websites).

SC.35.CS-CP.1.4 Collect, organize, graph, and analyze data to answer a question using a database or spreadsheet.

SC.68.CS-CS.2.4 Organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents), charts, tables and graphs.

MA.4.DP.1.3 Solve real-world problems involving numerical

MA.4.NSO.2.2 Multiply two whole numbers, up to three digits by up to two digits, with procedural reliability.

MA.4.NSO.2.7 Explore the addition and subtraction of multidigit numbers with decimals to the hundredths.

MA.5.NSO.2.1, MA.6.NSO.2.1 Multiply multi-digit whole numbers including using a standard algorithm with procedural fluency.

MA.5.NSO.2.5 Multiply and divide a multi-digit number with decimals to the tenths by one-tenth and one-hundredth with procedural reliability.

MA.6.NSO.2.3 Solve multi-step real-world problems involving any of the four operations with positive multi-digit decimals or positive fractions, including mixed numbers.



Packing Then vs. Now

Name:	
Class:	Date:
your suitcase on the left with words or picture	-day trip. Fold the paper in half vertically. First, pack es as if you were to leave today. Second, based on your h words or pictures as if you were to leave 100 years ne and different.
Circle your passenger ticket class:	First Class Second Class Third Class
Suitcase for Today	Suitcase for 1900s
Compare and Contrast: What is the same by	atwoon the two suiteases?
Compare and Contrast: What is the same be	etween the two suitcases?
What is different?	



Edwardian Information Guide: First Class

Who were they?

First class Edwardians inherited their wealth or earned great financial success as inventors, landowners, and large business owners.

Why did they travel?

Leisure, exploration, and business

So, what did they bring?

- 1. High-End Wardrobe: First-class passengers brought an extensive and fashionable wardrobe for up to 8 outfit changes a day, including formal evening gowns, tuxedos, and formal wear for the Ship's lavish dinners and social events.
- 2. Valuables and Jewelry: Wealthy passengers often carried valuable

- jewelry, watches, and accessories as a display of their status and wealth, in addition to large sums of money in bills.
- 3. Personal Staff: Some first-class travelers brought personal servants, male valets and lady's maids, or nannies to attend to their needs during the voyage.
- **4.** Fine Art and Décor: Some wealthy passengers carried valuable artwork, souvenirs, and decorative items from travels throughout Europe, Asia, and Africa.
- **5.** Philanthropic or Social Ambitions: Some wealthy passengers had philanthropic ideas or social missions, which they could develop through networking with other passengers on board.

Edwardian Information Guide: Second Class

Who were they?

Second class were middle-class families, tourists, and traveling professionals, like teachers, small business owners, managers, craftsmen, and clergy.

Why did they travel?

Leisure, family, and work

So, what did they bring?

1. Wardrobe: Second-class passengers brought a range of clothing suitable for the journey, including formal attire for dining and social events on board, as well as practical clothing for work and everyday wear.

- **2.** Personal Belongings: Valuables, such as jewelry, accessories, family photographs, heirlooms, and other personal items, were often packed for safekeeping.
- **3.** *Toiletries*: Toiletry kits with essentials like soap, toothpaste, and grooming items were common.
- **4.** Entertainment: Books, playing cards, or other forms of entertainment for leisure during the voyage.
- Money: Cash for expenses during the journey and upon arrival in the U.S.A.
- **6.** Hope and Aspirations: Like all immigrants, second-class passengers carried with them the hope for a better life, opportunities, and adventure.

Edwardian Information Guide: Third Class

Who were they?

Third class were people of little money and means who often saved years to buy a ticket to travel across the ocean, such as laborers, factory workers, farmers and field workers, and shipyard workers.

Why did they travel?

Immigrating to America, work, visiting native country, and family

So, what did they bring?

- 1. Personal Documents: Only immigrants carried an inspection card, important for their arrival. It included passenger's name and address, ship name, where they left from, destination, and a stamp showing they passed inspection. Immigrants had to pass a medical exam before boarding the ship.
- 2. Clothing: They often brought clothing suitable for the American climate and work opportunities. This might include traditional clothing from their home country as well as more practical attire.

- **3.** Money and Valuables: Immigrants carried whatever savings they had, usually in cash and valuable items like jewelry that could be sold or pawned in times of need.
- **4.** Luggage: After selling most belongings, they would pack what they could carry in simple trunks, suitcases, and even cloth sacks, often tying smaller bags into a large bundle to keep things together.
- 5. Personal Keepsakes: Sentimental items, such as family photos, religious icons, or heirlooms, were often treasured and brought along as a connection to their homeland.
- **6.** Language Materials: Books, newspapers, or language-learning materials in their native language might be brought to help with communication and adaptation.
- **7.** Personal Entertainment: Passengers might bring musical instruments, books, or other forms of entertainment for their leisure.
- 8. Hope and Aspirations: Perhaps the most important thing they brought was hope for a better life and the aspiration to build a brighter future for themselves and their families.



Edwardian First Class



Edwardian Second Class



Edwardian Third Class



Graphing the Numbers: People on Titanic

Name:	
Class:	Date:

Directions: Using the data and the website below, answer the questions. **Visit:** National Center for Education Statistics Kids' Zone Create a Graph https://nces.ed.gov/nceskids/createagraph/Default.aspx

1,317	Passengers on Board	
2,208	People on Board	
3,510	Capacity	
324	First Class	
284	Second Class	
709	Third Class	
891	Crew	

787	Men (Passengers)	
401	Women (Passengers)	
129	Children (Passengers)	
\$169*	Cost of 1st Class Cabin (1912)	
\$68*	Cost of 2nd Class Cabin (1912)	
\$40*	Cost of 3rd Class Berth (1912)	
Half fare each	Cost of Children Under 12	

^{*}Average cost of ticket fare. Cabins, berths, and suites varied in price based on amenities and size in accommodations and bookings.

Using the data above for the First, Second, and Third Class, go to the website and create a pie chart. Redraw it with labels below:

- 1. Under "Design" tab, select Pie.
- 2. Under "Data" tab, enter Graph Title as "Titanic Classes".
- 3. Select 3 for Pie Slices.
- **4.** For "Item Label," type in each class, and for each "Value" enter the bolded numbers.
- 5. Under "Labels" tab, change "Type" to "% of total"
- 6. Click "Preview," redraw, and color the pie chart below.

Using the website and data above, create your own chart with labels and redraw it below:

What does your chart show or explain?

What does it make you wonder?



Graphing the Numbers: People on *Titanic* Extension Questions

Directions: Use the chart to answer the following questions.

- 1. About how much did it cost for all second-class passengers to sail on *Titanic*?
- 2. About how much did it cost for all third-class passengers to sail on *Titanic*?
- Using the answers from 1 and 2, which class spent more money on tickets? Explain your answer.
- **4.** How many more men than women were on board *Titanic*? How does that compare to children?
- **5.** How many more people could fit on *Titanic* after it set sail if it was filled to capacity?
- **6.** How much would tickets on *Titanic* cost for a third-class family of 5, with two adult parents and three children under 12?
- 7. Money has about 30 times more value today than in 1912. That means \$1 in 1912 is worth about \$30 today. About how much in today's money (30 times more) is the cost for this family to travel on *Titanic*?
- **8.** Choose a class. How much would it cost your family to sail on the *Titanic*? What are your thoughts on that cost? Would you pay that much?





3. Being Edwardian: **Understanding Travel in 1912**

Titanic Theme: Edwardian Times

Skills: Reading; Comparing/Contrasting; Drawing; Designing; Assessing; Interpreting; Rationalizing; Listening/Speaking

Subjects: Social Studies; Edwardian Time Period History; Edwardian Class System; Reading Informational Texts; Visual Arts; Design; Listening/Speaking Skills; Writing



Objective:

 Students will analyze artifacts and understand how they relate to the Edwardian class system through creating their own dishware design.

Essential Questions:

- How does Edwardian life differ from today?
- How does an everyday item, like dishware, tell us about the past?
- What does the art of dining on *Titanic* tell us about the past?
- How did being Edwardian affect life on board Titanic?

Time: 40 minutes (with 20 minute optional tea)



Assessment:

- Student-created replica of a Titanic plate
- Design a Plate Reference Sheet
- Learning Ticket
- Student Journal Response



"On the night of the wreck our dinner tables were a picture! The huge bunches of grapes which topped the fruit baskets on every table were thrilling. I stayed at the table from soup to nuts."

-Kate Buss, Titanic Second-Class Passenger



Materials:

- Design a Plate Reference Sheet
- Paper Plate Per Student
- Coloring utensils (markers, crayons, color pencils, etc.)
- Learning Ticket
- Conversation Cards, pre-cut
- Optional tea:
 - > Treats (biscuits,
- > Plates
- cookies, scones, éclairs, Turkish
- Napkins
- > Drinks (tea,

delight, etc.)

- Other items to serve and prepare,
- water, juice)
- as needed

- General supplies (pencil, paper, etc.)

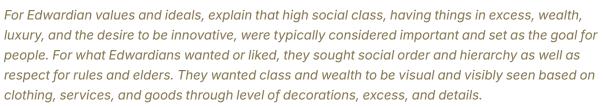


Procedures

1. Ask students, "What year did *Titanic* sail the ocean on her maiden voyage?" (1912). Explain to students that *Titanic* was built during the Edwardian Era of 1901-1919, and life was different back then for *Titanic*'s passengers with different lifestyles, wants, and values. Explain that to understand *Titanic*, they have to think like an Edwardian passenger.

Explain the Edwardian Class System, which was used to sell tickets and separate passengers on the Ship.

- i. First Class: wealthy investors, travel for leisure
- ii. Second Class: modest, working professionals and tourists
- iii. Third Class: low socioeconomic, laborers and factory workers



- a. Reference Lesson 2 handouts: "1912 Immigration: The Allure of America" Edwardian Information Guides for First, Second, and Third Classes.
- 2. Ask students, "How does this Edwardian social class and lifestyle connect to Titanic?"

First-class passengers expected *Titanic* to be grand and luxurious. Passengers were expecting to be separated by class on the Ship and could visually tell the difference between each other. Passengers did not expect to talk or interact with other passengers outside of their different classes.

- **3.** Visit DiscoverTitanic.com/artifacts to review artifacts by class and compare and contrast the dining experience by reviewing the menus on *Titanic*: https://titanicfacts.net/titanic-menu/
 - i. First Class Menu
 - ii. Second Class Menu

meals, unlike other ships of the time.

- iii. Third Class Menu
- 4. Discuss how artifacts like these show how different classes were treated in the Edwardian Era.



First Class were wealthy and expected elaborate, gilded design. They expected high quality service, luxury, choices, and attention to detail. Second Class were workers who would have nice quality items and moderate service. Third Class were made of laborers and emigrants, so they experienced many of life's hardships. They could only afford basic necessities, yet Titanic went beyond necessities providing steerage passengers with three daily



5. Group students into either First Class, Second Class, or Third Class (either randomly or based on Exhibition boarding pass cards). Each group will receive the handoutDesign a Plate sheet to see what dishware looked like for each of the classes. They





- will discuss what they notice, write down ideas, and use that handout to recreate the design using a paper plate.
- **6.** Pass out paper plates and coloring utensils to each student. Allow students time to design, create, and color their *Titanic* plate. When finished, students will do a gallery walk, where they will go around the room looking at other students' work.
- 7. After students return to their seats, discuss, "What did they notice as similarities and differences? What does that tell us about passengers on *Titanic*?" and "If you could change your plate design, would you? Why? How could that relate to *Titanic*'s passengers?"

Some dishes were plainer and simpler while others had more detailed patterns. First-class dishes were fancier because they had more color and designs than third class. Second-class dishes had some designs but nothing as intricate with gold as first class. Third-class had the White Star Line logo in the center. Both second and first class had colorful designs. The amount of detail and design you got on *Titanic* depended on your class. First-class passengers were probably happy with their designs, and third class could possibly have wanted more.



- **8.** Distribute **Learning Ticket** that can be used to conclude lesson or introduce to the optional tea extension.
 - a. If concluding lesson: Pass out **Learning Ticket** half-sheets and have students complete the questions individually to turn in.
 - b. If introducing tea: Explain that students will participate in a class Edwardian Tea Party. After the **Learning Ticket** is completed, students will bring their ticket and plate to the teacher, and the teacher will exchange both for their class treat. Students will talk amongst their group about life in the Edwardian Era, while eating.



- **9.** Optional tea: Can link to class activity with Edwardian social class or boarding passes received from the Exhibition.
 - a. Pass out treats, optionally different for each class.
 - i. First Class: 4 treats and tea/juice
 - ii. Second Class: 2 treats and tea/juice
 - iii. Third Class: 1 treat and water
 - b. You can decide if you want to pass out treats equally amongst students.
 - c. Students can imagine they lived in Edwardian Times and have a "dinner conversation." Discuss as a group while snacking, "What do you think life was like aboard *Titanic*? How do you feel about the difference in treatment between classes?"
 - i. Use Conversation Cards, if wanted.
- **10.** Journal: Imagine you lived in Edwardian society of the early 1900s. What are the differences between the classes? What would your life be like if you lived in that social class from the lesson? How would you feel about it?



Edwardian Life Additional Activities and Resources

Optional Extension Activities:

- If you have Exhibition boarding passes, draw a portrait of your passenger, using https://www.encyclopedia-titanica.org /titanic-passenger-list/
- Design a cabin based on your boarding card passenger. Draw in at least two fixtures. Why did you choose to include these pieces in your cabin? Why did you choose the colors and patterns you did? How do these represent the Edwardian style?
- Research and design an image or person in Edwardian clothing
- Create a PowerPoint presentation highlighting examples of Edwardian fashion for adults and children
- Research children on board and recreate an Edwardian children's game
 - Children on *Titanic* news article: https://www.washingtonpost.com/lifestyle /kidspost/kids-were-onboard-the-Titanic -too/2012/04/12/gIQANwAhFT_story.html
 - > Street Games: https://www.1900s.org .uk/1900s-streetgames.htm
 - Edwardian Board Games: https://www.nationalarchives.gov.uk /education/resources/all-on-board/

Resource Materials:

- Titanic fashion and artifacts: https://www .nytimes.com/2012/04/12/fashion/on-the
 -Titanic-defined-by-what-they-wore.html
- TikTok Raf_Avila, Dining on Titanic: https://www.tiktok.com/@raf_avila /video/6933732622464027909?lang=en
- TikTok KJFish, Dishes at Las Vegas: https://www.tiktok.com/@kjfish /video/6896989352786742534?lang=en
- TikTok KJFish, First Class Suites: https://www.tiktok.com/@kjfish /video/6868747885375261957?lang=en

- TikTok KJFish, Second Class Cabins: https://www.tiktok.com/@kjfish /video/6870674041745853701?lang=en
- TikTok KJFish, Third Class Life: https://www .tiktok.com/@kjfish /video/6871755608672963845?lang=en
- Tierney, Tom. Late Victorian and Edwardian Fashions. Garden City: Dover Publications, 2005. ISBN: 978-0-486-44458-1.

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SS.6.W.1.6 Describe how history transmits culture and heritage and provides models of human character.

ELA.4.R.3.3, **ELA.5.R.3.3** Compare and contrast primary and secondary sources related to the same topic.

ELA.4.C.2.1, ELA.5.C.2.1, ELA.6.C.2.1 Present information orally, in a logical sequence, using nonverbal cues, appropriate volume, clear pronunciation, and appropriate pacing.

VA.4.S.1.3, VA.5.S.1.3 Create artworks to depict personal, cultural, and/or historical themes.

VA.5.S.3.1 Use materials, tools, techniques, and processes to achieve expected results in two- and/or three-dimensional artworks.

VA.68.S.1.2 Use media, technology, and other resources to derive ideas for personal art-making.

VA.68.S.1.3 Use ideas from cultural, historical, and artistic references to create personal responses in personal artwork.

VA.5.C.1.1, VA.68.C.1.1 Develop a range of interests in the art-making process to influence personal decision-making.

VA.5.C.3.2 Use art-criticism processes to form a hypothesis about an artist's or designer's intent when creating artworks and/or utilitarian objects.

VA.5.C.3.3 Critique works of art to understand the content and make connections with other content areas.

VA.4.H.1.1, VA.5.H.1.1, VA.68.H.1.1 Examine historical and cultural influences that inspire artists and their work.

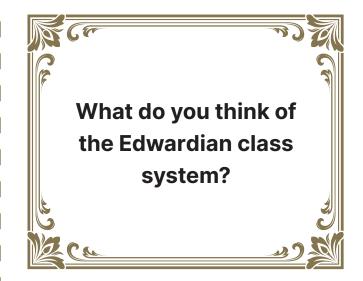
VA.4.H.1.3, VA.68.H.1.3 Describe artworks that honor and are reflective of particular individuals, groups, events, and/or cultures.

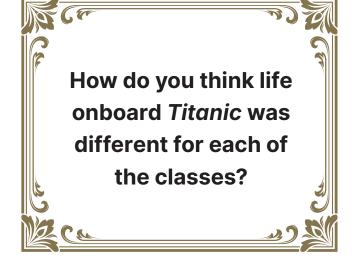




Conversation Cards













2	
*	Directions: Complete the Learning Ticket, answering the questions below.
	1. Describe each of the three different social classes of the Edwardian time period.
	Date:
	2. What social class differences would passengers experience on <i>Titanic</i> ?
	3. Describe 2 things that were considered important to Edwardian society:
Name:	O O S S S S S S S S S S S S S S S S S S
	Directions: Complete the Learning Ticket, answering the questions below.
	Describe each of the three different social classes of the Edwardian time period.
	Date:
	2. What social class differences would passengers experience on <i>Titanic</i> ?
	3. Describe 2 things that were considered important to Edwardian society:

Design a Plate

Class:		Date:	
Directions: Using these pictures and infor Look closely for patterns, colors, and logo		reate the design of th	e plate.
Circle which class you are researching:	First Class	Second Class	Third Class
Color:			
Pattern:			
Fattern.			





4. Are We There Yet?: Passing Time On Board *Titanic*

Titanic Theme: Life On Board

Skills: Reading; Writing; Designing; Artistically

Creating; Rationalizing; Assessing

Subjects: Social Studies; Edwardian Time Period History; Visual Arts; Reading; Writing;

Speaking/Listening



Objective:

 Students will define luxury and describe the amenities on board *Titanic* through the creation of a triorama.

Essential Questions:

- What is the definition of luxury, and how has it changed meaning over time?
- What luxurious amenities did each ticketed class have on board *Titanic*, and how did it impact their time on board?
- How did the Edwardian social norms impact the accommodations and amenities on *Titanic*?

Time: 50 minutes



Assessment:

- Titanic: Life On Board Note-Taker
- Rotation Sheets
 - > Pop-Ups: Dress Your Passenger
 - > Pop-Ups: Recreate an Artifact
 - > Explore the Amenities of *Titanic* Triorama
- Student Journal Response



"The Ship is like a palace, my cabin ripping . . . hot and cold water, a very comfy looking bed, and lots of room."

—Hugh Woolner, Titanic First-Class Passenger



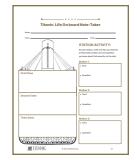
Materials:

- ☐ Titanic Room Puzzles
- ☐ Titanic: Life On Board Note-Taker
- Rotation Sheets
 - > Pop-Ups: Dress Your Passenger sheet
 - > Pop-Ups: Recreate an Artifact sheet
 - Explore the Amenities of Titanic Triorama sheet
- ☐ Information Guides
 - The Grand Staircase Titanic's Majestic Centerpiece
 - > Titanic's Amazing Amenities
 - Exploring the *Titanic* Through Artifacts
- Activity Supplies:
 - > Scissors; Glue; Coloring Utensils
- General supplies (pencil, paper, etc.)



Procedures

- Students receive pre-cut *Titanic* Room Puzzles. Students can work individually or in groups to assemble puzzle pieces. Afterwards, discuss what the students are seeing and what they notice. Explain that these are pictures of rooms on board *Titanic*, detailing amenities and accommodations.
 - a. Per teacher's discretion, students may return the puzzles immediately, put them in plastic baggies to hold till the end of the lesson, or keep them.
- **2.** Explain that "luxury" is the word most associated with *Titanic*, and to better understand today's lesson of life onboard the Ship, you will define luxury, accommodations, and amenities. According to Merriam-Webster Dictionary:
 - i. "Luxury" means something adding to pleasure, ease, or comfort—but not absolutely necessary, often in abundance. People of the early 1900s (Edwardian Era) desired luxury amongst all classes but expected it in First Class.
 - ii. "Accommodations" means lodging and meals or traveling space and related services. This means the rooms, cabins, and berths onboard the Ship.
 - iii. "Amenities" means things that provide comfort, convenience, or enjoyment. This means any special services or facilities that made a passenger's stay on Titanic more enjoyable.
- Research what luxuries were onboard *Titanic*. Group students into First, Second, and Third Class (may use Exhibition boarding passes, groups from Edwardian lesson, or assign new groups). Have each group use the *Titanic*: Life On Board Note-Taker to write, in their own words, the central idea and details on the website about accommodations and life aboard for their specific class. They do not have to read about the other two classes because they learn that from each other later in the lesson.
 - a. Amenities and accommodations of the three classes:
 https://www.bbc.co.uk/bitesize/topics/z8mpfg8/articles/zkg9dxs





First class had the most amenities with cafes, a smoking room, restaurant, gym, swimming pool, and large dining saloon with live music. Decorations and décor were gilded, spacious, hand-carved, and expensive. Second class had bunk-bed cabins without private bathrooms, a large outdoor promenade, smoking room, library, and dining room with live music and plenty of nice details. Third class had basic accommodations with few amenities. They had a general room, piano, male-only smoking room, dining hall, and cabins that could have up to 10 people with two shared baths for all in third class. Food was provided on Titanic for all classes.

- **4.** Make groups of 3 (one for each Edwardian class: First, Second, and Third). Have students share their findings with other group members to add those notes about the other classes to their *Titanic:* Life On Board Note-Taker.
- 5. Inform the students that they will now be exploring *Titanic* as passengers, going through 3 stations to create a triorama with pop-ups. Overview stations below. Have students use *Titanic*: Life On Board Note-Taker to write one fact and one question from each station after they complete the activity. Set mood by decorating each area beforehand, placing a printed picture of the represented room, and/or playing *Titanic*-related music. Play music during rotations and stop music to indicate transition to the next one.





- 1. First Class Grand Staircase Station: create a pop-up *Titanic* passenger for the triorama.
 - i. Students read The Grand Staircase Titanic's Majestic Centerpiece guide.
 - ii. Students follow the directions of the **Pop-Ups: Dress Your Passenger** sheet to create, draw, and color their outfit.
 - iii. May choose a random passenger, first-class passenger, or the passenger on the Exhibition boarding card pass to draw, per teacher's discretion.
- 2. Second Class Library Station: research specific amenities for a triorama setting.
 - Students read *Titanic's* Amazing Amenities guide and choose one amenity to replicate using the Explore the Amenities of *Titanic* Triorama sheet.
 - Students record information on the sheet and then draw the walls and floors of the room, which are labeled.
 - Students use coloring utensils, scissors, and glue to follow the directions and build triorama.
 - Students may glue the backs of four different amenity/room trioramas to make a pyramid.
 - ii. Students can use the resources below for more information and pictures.
 - Detailed passenger accommodations: https://www.encyclopedia -titanica.org/passenger-accommodation.html
 - Magazine: RMS Titanic: The True Story. A360 Media. 2023.
 ISBN: 25274-74254. Pg 38-39.
 - Book: Chrisp, Peter. *Explore Titanic*. New York: Carlton, 2011. ISBN: 978-1-4380-7159-6.
- 3. Third Class General Assembly Room Station: create artifacts for the triorama.
 - i. Students read Exploring the Titanic Through Artifacts guide.
 - ii. Students follow the directions on **Pop-Ups: Recreate an Artifact** sheet to create and attach an artifact to the triorama.
- **6.** After students have completed each station, they will return to their seats. Those who still need to attach their pop-ups to the triorama base may do so at this time.
- 7. Partner-share: have students share their three facts and three questions with the person next to them. Explain that while all their questions might not be answered today, questions drive us to research, learn, and explore more. Creating questions like the ones they did are what allowed professional researchers and explorers, like PH Nargeolet, James Cameron, Robert Ballard, and many others, to discover new and incredible things about *Titanic*. Those questions keep people like us learning about her history.
- **8.** Discuss with students the following questions, "What made *Titanic* a luxurious and comfortable ship to sail on? How was life on board *Titanic* different for each class (first, second, and third)? Did White Star Line need to have such a heavy focus on luxury?"

Titanic had many rooms, accommodations, and amenities for her passengers, like a swimming pool, library, gym, general room, etc. Her passengers had food provided and music available. First-class passengers had more amenities and luxuries, while second class had some and third class had basic amenities.



9. Journal: If you could go back in time, which of *Titanic*'s accommodations, amenities, or luxuries would you like to see? In today's times, do you consider *Titanic*'s amenities to be luxurious? Why?







Life On Board Additional Activities and Resources

Optional Extension Activities:

- Color and cut out ship on *Titanic*: Life On Board Note-Taker to showcase in classroom.
- Create a virtual model of one of the rooms or amenities.
 - > Use a shoe box and create replica by hand.
 - Use online room design program: http://www.planyourroom.com/ or https://roomtodo.com/planner
- Art project of drawing a room on *Titanic* to then have a gallery wall of *Titanic*'s rooms with label describing each room.
- Become a modern Thomas Andrews and design a ship for today by drawing your own ship with accommodations and amenities that you want.
- List 3-5 luxuries for each of the classes on each ship type: *Titanic* and modern cruise liner.
- Use the data from Lesson 2's "Graphing the Numbers: People on Titanic" like ticket prices, to discover the cost of family tickets.
 Can continue by converting ticket prices into today's money.

Resource Materials:

- User-created 3-D model of *Titanic*: https://sketchfab.com/models/89a621627e cf41dc9a9c372af024db34/embed?utm_ source=website&utm_campaign
- "Titanic: Honor and Glory" Virtual Tour of the Ship: https://www.youtube.com /watch?v=UOCSs8JYU5o
- TikTok Raf_Avila, Swimming Pool: https://www.tiktok.com/@raf_avila/video/6971982789528849669?lang=en
- TikTok Raf_Avila, Dining on Titanic: https://www.tiktok.com/@raf_avila/video /6933732622464027909?lang=en
- TikTok Raf_Avila, Electric Bath: https://www.tiktok.com/@raf_avila /video/7036957684976962821?lang=en

- TikTok KJFish, Turkish Bath: https://www.tiktok.com/@kjfish/video /6829799703140470021?lang=en
- Tanaka, Shelley. On Board the Titanic. New York/Toronto: Hyperion/Madison Press, 1996.
 ISBN: 0-7868-1269-9

Florida State Education Standards:

SS.5.A.1.1 Use primary and secondary sources to understand history.

SS.6.W.1.3 Interpret primary and secondary sources.

SS.6.W.1.6 Describe how history transmits culture and heritage and provides models of human character.

ELA.4.V.1.3, ELA.5.V.1.3 Use context clues, figurative language, word relationships, reference materials, and/or background knowledge to determine the meaning of multiple-meaning and unknown words.

ELA.4.R.3.2, ELA.5.R.3.2, ELA.6.R.3.2 Summarize a text to enhance comprehension. Include plot and theme for a literary text. Include the central idea and relevant details for an informational text.

SC.35.CS-PC.3.1 Identify digital information resources used to answer research questions (e.g., online library catalog, online encyclopedias, databases, and websites).

SP.PK12.US.1.1b Apply skills and strategies, such as decoding multisyllabic words; analyzing vocabulary, including roots and affixes; making associations; and using visual imagery and mnemonics, to recall and understand information from a variety of media sources.

VA.68.S.1.2 Use media, technology, and other resources to derive ideas for personal art-making.

VA.4.S.1.3, VA.5.S.1.3 Create artworks to depict personal, cultural, and/or historical themes.

VA.5.S.3.1 Use materials, tools, techniques, and processes to achieve expected results in two- and/or three-dimensional artworks.

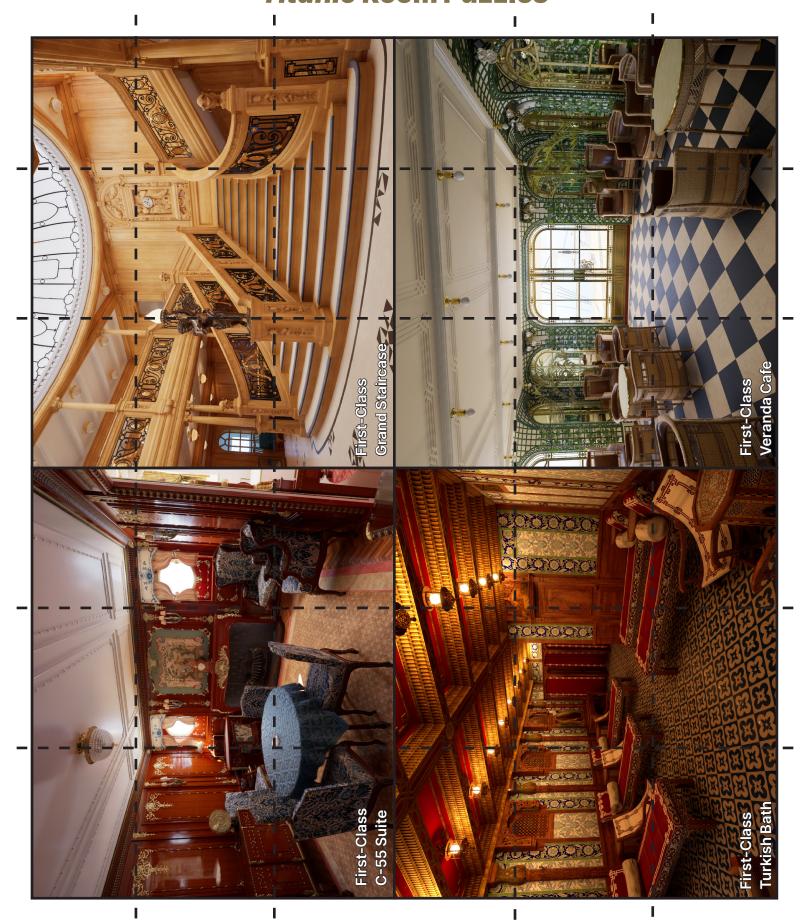
VA.4.H.1.1, VA.5.H.1.1, VA.68.H.1.1 Examine historical and cultural influences that inspire artists and their work.

VA.4.H.1.3, VA.68.H.1.3 Describe artworks that honor and are reflective of particular individuals, groups, events, and/or cultures.





Titanic Room Puzzles



Titanic: Life On board Note-Taker

Name:		
Class:	Date:	
	STATION ACTIVITY: At each station, write one fact you learned at that station below and one question you have about that amenity on the ship. Station 1:	
	■ Fact:	
First Class	■ Question:	
	Station 2:	
Second Class	■ Fact:	
	Question:	
Third Class	Station 3:	
	■ Fact:	
	Question:	

The Grand Staircase – Titanic's Majestic Centerpiece

The *Titanic* was a magnificent Ship known for her grandeur and luxury. At the heart of this luxury was the Grand Staircase, a breathtaking feature located in the first class area spanning seven floors. Here are key points about the Grand Staircase, its use, and its connection to fashion:

Special Design:

Its design featured oak wood paneling, intricate carvings, gold plating, and a brand-new flooring called linoleum, making it a striking centerpiece. The staircase was capped with a dome of wrought iron and glass to allow natural light to enter. A bronze cherub electric lamp adorned the landing with the wooden sculpture "Honor and Glory Crowning Time" clock at the top.

Social Hub:

Passengers often gathered around the Grand Staircase to socialize and mingle before going to the First Class Dining Room.

Fashion and Elegance:

The Grand Staircase was the best place to see the fashionable attire of first-class passengers, who wore elaborate beaded evening gowns, tuxedos, and tailored suits. Passengers descending the staircase made a grand entrance into the Ship's dining room and lounge, where they could showcase the latest trends and their exquisite outfits.

Symbol of Luxury:

The Grand Staircase was a symbol of the *Titanic*'s luxury and is remembered as an iconic feature of the Ship. It represented the Edwardian era's sense of fashion and sophistication. This grand staircase, adorned with its stunning design and accompanied by fashionable passengers, contributed significantly to the *Titanic*'s reputation as a peak of luxury and style during its time.

Fun Fact:

There are no known photographs of *Titanic's* Grand Staircase. The historical pictures you see are actually images of the Grand Staircase on *Olympic (Titanic's* sister ship), which look nearly the same.



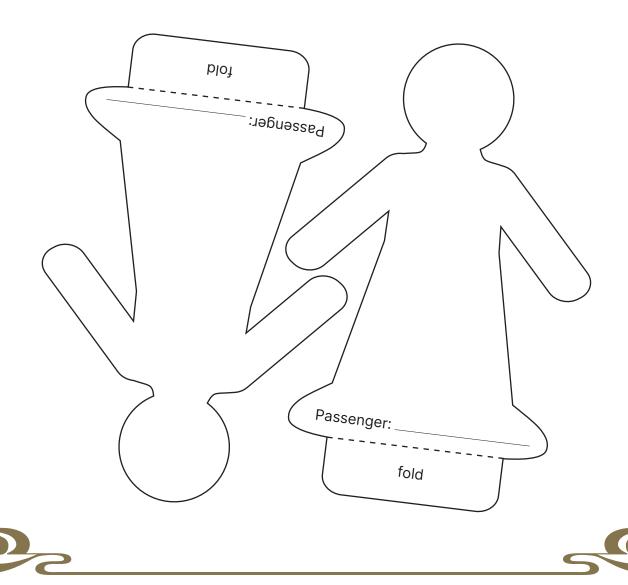


Pop-Ups: Dress Your Passenger

Welcome aboard the RMS *Titanic*! After reading your boarding pass, think of what your passenger would wear. Remember, this was over 100 years ago in the Edwardian era. Are they dressed in a formal tuxedo or elegant evening gown for First Class? A sensible business suit for Second Class? Or a simple shirt and skirt or pants for Third Class?

- 1. Write passenger names on cut-outs.
- **2.** Research your passenger for pictures on Encyclopedia-Titanica.org.
- 3. Draw and color the outline below by adding:
 - > Edwardian clothing
 - > Hat and accessories
 - > Face

- **4.** If your passenger traveled with anyone, you may draw their companion, too.
- **5.** Cut out your passengers and fold along the dotted line.
- 6. Glue onto your triorama.



Titanic's Amazing Amenities

The *Titanic* was a grand and luxurious ship that sailed in 1912. The *Titanic* was like a floating palace with amazing amenities for passengers of all classes. It offered comfort, entertainment, and a taste of luxury to those on board. Let's explore some of the fantastic features that made the *Titanic* special.

Cabins for Everyone:

First-class passengers enjoyed spacious rooms with comfortable beds and beautiful decorations. Second-class passengers had cozy cabins with clean and comfortable accommodations. Third-class quarters were mostly divided by men and women, and a ticket only booked a bed in a room with up to 10 others.

Dining in Style:

Titanic had splendid dining rooms. First-class passengers dined in the grandest style, enjoying delicious eight-course meals. Second-class meals surpassed other ships, as they were also served from the first class kitchen. Third-class passengers had their own dining areas with three meals provided daily.

A Swimming Pool:

Yes, you read that right! *Titanic* had a swimming pool. It was for first-class passengers who wanted to enjoy a refreshing swim during their voyage, and a ticket cost 25¢.

Gym and Exercise:

Passengers who wanted to stay active could use the Ship's gymnasium and squash court. The gym had exercise equipment like rowing machines, electric camels, punching bags, and mechanical bikes.

Barber Shops:

Did you know male passengers could receive a shave or haircut on board? It's true! The place also served as a souvenir shop, where all passengers could buy small gifts and postcards with images of the Ship.

Gathering Places:

Titanic's First-Class Lounge gave a place for passengers to relax, socialize, and enjoy live music from the Ship's band. People also came together in the Reception Room, Promenade Deck, the Reading and Writing Room for women, and the Smoking Room for men.

Cafes and Restaurants:

First-class passengers could grab a bite of food or cup of tea or coffee at Café Parisien, Verandah Café, or the À la Carte Restaurant.

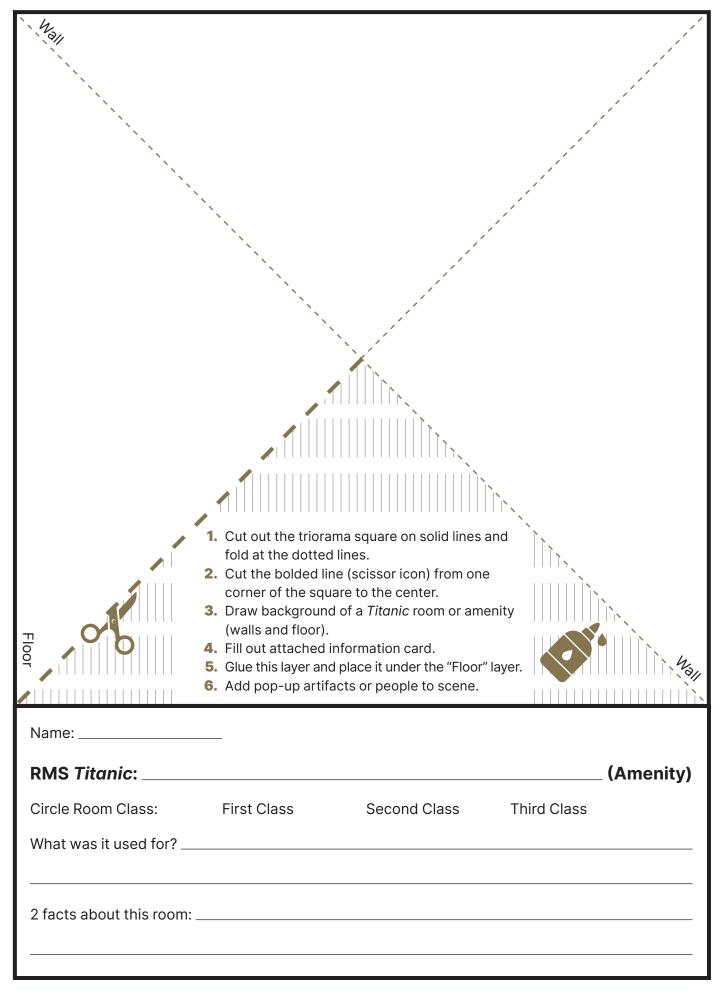
Electric Elevators:

Titanic was one of the first ships to have electric elevators, which made it easier for passengers to move between decks. There were three for first class and one for second class.

Fun Fact:

Titanic even had a Turkish bath facility, which was a popular spa treatment of the time. Passengers could relax and enjoy steam baths and massages.





Exploring the *Titanic* **Through Artifacts**

The artifacts found on RMS *Titanic* offer a remarkable window into the past. Over the years, many artifacts from the Ship and her passengers have been recovered by RMS Titanic, Inc., telling us more about who sailed on this iconic vessel and what it was like to be on board.

OF THE SHIP

China and Dinnerware:

Fine china plates and elegant dinnerware used in *Titanic*'s dining rooms have been recovered. These pieces feature the White Star Line logo.

Silverware:

Beautiful silverware, including forks, knives, and spoons, have been found, showcasing the Ship's extensive dining experience.

PERSONAL BELONGINGS

Personal Effects:

Passengers' personal items, such as jewelry, eyeglasses, shoes, hairpins, and clothing, provide a glimpse into the lives of those on board. Small personal items like pocket watches, wallets, money, and keys have been recovered, helping researchers identify individuals.

Luggage:

Trunks, bags, and luggage tags with passenger names and cabin numbers offer insight into their accommodations.

Music:

Sheet music and instruments played by the onboard musicians and passengers are among the artifacts found, highlighting the importance of music on the *Titanic*.

Ship Components:

Various Ship components like portholes, whistles, bells, deck chairs, and pieces of the Ship's hull have been retrieved and displayed in museums and exhibitions.

Artwork and Décor:

Artwork, sculptures, and decorative elements from the Ship's interior showcase *Titanic*'s lavish design.

Fun Fact:

Titanic had an automated whistle-blowing system used for signaling and communicating with other ships. Recovered in 1993, a set of three whistles sounded for the first time since Titanic's sinking (about 87 years later) in St. Paul, Minnesota in 1999 to a crowd of 100,000 people. Use this link to listen: https://www.youtube.com/watch?v=1_vRx4kdpeo





Pop-Ups: Recreate an Artifact

Artifacts allow us to experience *Titanic* today. They help us remember the lives lost and the grandeur of this iconic ship. Artifacts include preserved items belonging to the Ship or her passengers. After reading "**Exploring the Titanic Through Artifacts:**"

- 1. Choose two artifacts to draw:
 - Any artifacts you saw on your field trip to TITANIC: The Artifact Exhibition.
 - > https://DiscoverTitanic.com/artifacts
 - https://www.nydailynews. com/2019/05/30/artifacts-recoveredfrom-the-titanic-wreckage/
 - https://wwd.com/pop-culture/culturenews/gallery/artifacts-artifactsrecovered-photos-1235704353/titanicviolin-goes-on-display-to-the-public/

- **2.** Draw and color your artifacts in the squares.
- **3.** Cut out your drawings and fold along the dotted line.
- **4.** Write the name of each artifact on the back.
- 5. Glue onto your triorama.

<i>(</i>) (`
Artifact:		Δrti	fact:		
fold	J		(fold	J
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5. Pass It On: The Louise Gretchen Kink Pope Story

Titanic Theme: Passenger Highlight

Skills: Reading; Writing; Interpersonal Communications; Interviewing; Intergenerational Discussions; Notetaking

Subjects: Social Studies; Reading Informational Texts; Writing; Speech; Language; Listening/Speaking



Objective:

 Students will connect to *Titanic* passenger stories by engaging in the interview process.

Essential Questions:

- Why is it important to tell stories?
- How does the Pope family story enhance your Titanic understanding?
- How has the Pope family ensured their stories are not forgotten?
- What does a good interviewer do to preserve important stories?

Time: 35 minutes



Assessment:

- Family Interview Graphic Organizer
- Student Journal Response
- Practice Titanic Class Interview



"They are moved by it.

The elements are so common: immigration, hardship, death and trauma. In telling my story, something in it rings a bell with people."

— Joan Randall, Titanic Survivor Descendant



Materials:

- ☐ The Kink Family History Overview
- Family Interview Graphic
 Organizer
- Practice Titanic Class Interview
- Access to a Flip.com account
 - How to set-up an account: https://help.flip.com/hc/en-us /articles/360051539934
 - -Getting-Started-Educators
- General supplies (pencil, paper, etc.)



Procedures

1. Discuss family and what it means to the students. Proceed to ask for students to raise their hands with the question, "Who has a story they want to share about their family?" Pair students up, each will share a family story. Ask, "What was that experience like?" and poll using raised hands, "Who heard a story that they thinks sounds like something their family would do or say?"

Family can take many forms and, importantly, our families create stories, ones that we can share with each other, whether within or outside the family itself. Sharing stories about family can be fun, silly, hard, too much to say in just a few moments. It's a way for us to feel connected and connect with others.

- 2. *Titanic* was a ship filled with stories. Each passenger and crew member had stories, and many people shared their stories beyond their time on *Titanic*. One such person was the passenger Louise Gretchen Kink Pope and her family. Right now, her story is being shared by her daughter Joan Pope Randall.
- Break students into groups of four, handing each student the Kink Family History
 Overview. Have students read the sheet, highlighting key details from their story.
 - a. Students can also read Joan Pope Randall sharing her and her
 mother's story in the Milwaukee Journal Sentinel: https://www.jsonline
 .com/story/communities/northwest/news/lannon/2019/10/28/daughter-titanic
 -survivor-buried-wisconsin-shares-moms-story/4067419002/
 - b. Discuss why students think it was important for Joan Pope Randall to share her mother's story and why it was important for Louise Gretchen Kink Pope to share her own story.





As an immigrating third-class farm family, Joan's family shared ambitions with many other third class families: hopes and dreams of a better life in America. The Kink family was the only third-class steerage family where mother, father, and child survived the disaster. Her family is also unique in that, though her immediate family survived, they also experienced loss: both Louise's aunt and uncle perished.

c. Ask if Joan is a historian, and what is the role of a historian. Is there a responsibility that comes with this family *Titanic* connection? How does the *Titanic* tragedy affect Joan and her family over 100 years later?

It's her family story. She is a historian because she is researching and sharing her mother's story. No, she is not a historian because that isn't her paid job. Everyone has family stories to share. *Titanic* changed her family's lives because her grandparents got divorced, and it affects Joan because she takes the time to share her family's story and artifacts today by attending *Titanic* exhibitions and conferences.



- 4. Again, Louise's story is being shared by her daughter Joan Pope Randall. Students will do the same by learning and sharing a story about their families. Explain that *Titanic* was a life-changing event, so they are going to interview a family member about a life-changing event that person experienced. Pass out Family Interview Graphic Organizer. Explain how they will use that sheet to take notes about their family's important moment.
- **5.** Below are topics to discuss with students about how to interview a person:



Ways to interview

- i. Phone
- ii. Video call
- iii. Face-to-face

Interview techniques

- i. Be kind and positive
- ii. Avoid interruptions and distractions
- iii. Find a quiet environment to interview
- iv. Have questions prepared and ready
- v. Practice with another person beforehand
- vi. Show interest with body language, eye contact, and head nods

How to take notes while listening

- i. Tell the other person you are taking notes
- ii. Take and ask for pauses between questions
- iii. Ask someone to repeat information



- 6. Pass out the **Practice Titanic Class Interview** sheet for students to practice interviewing techniques with another student or teacher. Monitor to ensure students are using good technique and note-taking. Per teacher's discretion, students can take turns where each person asks and answers the question, or one person asks and one person answers at a time.
- **7.** Review **Family Interview Graphic Organizer** and assignment, due date, and interview techniques with students.
 - a. Students may turn in their Family Interview Sheet or present it to the class later, depending on classroom needs.
 - b. The teacher may assign their interview to be recorded on Flip.com



8. Journal: Why is it important that Louise Gretchen Kink Pope and Joan Pope Randall tell their family's *Titanic* story? Why is it important for your family to tell their stories?







Passenger Additional Activities and Resources

Optional Extension Activities:

- Students choose one of their family members. Write a letter to them, including questions they can respond to. Or write a personal narrative about a time together.
- Compare this to the story of another family of a different class. (First Class-Allison Family, Second Class-Laroche Family) How did their experiences compare? Were there primary source accounts for any of this information?
- If you have the Exhibition passenger cards, research the life of your passenger, using https://www.encyclopedia-titanica.org/titanic -passenger-list/#google_vignette.
 - Write at least 5-6 sentences to summarize about that person's life.
 - Research how much they paid for their ticket and convert it into today's money. Would you spend that much money to travel across the ocean?
 - > Draw a portrait of their passenger.
 - Write a story as if you were interviewing your passenger.
- Create a PowerPoint summary of Louise Gretchen Kink Pope.
- Create a family tree.
 - National Archives templates and directions: https://www.archives.gov/education/family -history

Resource Materials:

- Short article about Joan Randall's connection to *Titanic*: https://www.davisenterprise.com /news/community_news/briefly/randall -to-give-talk-about-family-members-whosurvived-titanic/article_d5251abb-a500-5fb6-819c-f25366e9ce7b.html
- In Their Own Words: TITANIC: A Primary Source History. Senan Molony, Ed. New York: Gareth Stevens, 2006. ISBN: 0-8368-5980-4

Florida State Education Standards:

SS.6.W.1.5 Describe the roles of historians and recognize varying historical interpretations (historiography).

SS.6.W.1.6 Describe how history transmits culture and heritage and provides models of human character.

ELA.4.C.2.1, ELA.5.C.2.1, ELA.6.C.2.1 Present information orally, in a logical sequence, using nonverbal cues, appropriate volume, clear pronunciation, and appropriate pacing.

ELA.4.C.4.1, ELA.5.C.4.1, ELA.6.C.4.1 Conduct research to answer a question, organizing information about the topic and using multiple reliable and valid sources.

ELA.4.C.3.1, ELA.5.C.3.1, ELA.6.C.3.1 Follow the rules of standard English grammar, punctuation, capitalization, and spelling appropriate to grade level.

ELA.4.C.5.1, ELA.5.C.5.1, ELA.6.C.5.1 Arrange multimedia elements to create emphasis in oral or written tasks.

WL.K12.AL.1.5 Identify the main idea and supporting details from discussions and interviews on unfamiliar topics.

WL.K12.IH.1.5 Identify the main idea and supporting details from discussions and interviews on familiar topics.

WL.K12.NM.3.4 Exchange essential information about self, family, and familiar topics.



The Kink Family History Overview

he Kink family planned to emigrate from Switzerland to Milwaukee, Wisconsin, and start a new life in a new country with their extended family. Originally from Graf, Austria, Anton Kink moved to Zurich, Switzerland, in 1906. He married Luise Heilmann in 1908, and they had a daughter named Louise Gretchen in 1909. After Anton's parents died in 1911, his brother, Vincenz, and sister, Maria, decided to join the rest of the family (Anton, Luise, and Louise) in Zurich. They all planned to move to America together.







In 1912, the family with 4-year-old Louise Gretchen boarded *Titanic* in Southampton, England. Anton and Vincenz shared cabin E-58 on the forward F Deck with four other men from Europe. Maria, Luise, and little Louise shared a separate cabin (R-190) with other women at the stern of the Ship. They were headed to Milwaukee, where a relative named Alois Hofer lived.

On the night of April 14, 1912, *Titanic* hit an iceberg. Anton and his brother Vincenz woke up when they heard the loud noise. They caught a glimpse of the iceberg. Both quickly got dressed and went to wake up the women. Everyone put on life jackets and tried to get to the Boat Deck, where the lifeboats were being prepared. Anton lost track of his brother and sister in the crowd, and they were never seen again.

Anton made sure his wife and daughter got into Lifeboat 2, but he was told to stay back. When he heard them crying, he pushed through the crowd and jumped into the lifeboat just as it was being lowered into the water. All three of them survived, which was rare for third-class families on *Titanic*.

After *Titanic* sank, they went to a hospital in New York. Then, with some money from a relative, they finally traveled onward to Milwaukee. Anton got a job in a factory and later rented a farm. In 1919, Anton and Luise divorced. Anton went back to Austria, where he married again and later died in 1959. Luise stayed in Wisconsin, also remarried, and lived there until her death in 1979. Louise Gretchen stayed in Milwaukee and lived until she was 84 years old. Both mother and daughter are buried in Sunnyside Cemetery. Today, the Kink family story is actively shared by Louise's daughter, Joan Pope Randall.

Practice Titanic Class Interview

Name:	
Class:	Date:
Directions: While interviewing another student, practice gracking. Write down the answers to the questions below, base	·
What is your favorite thing you have learned about <i>Titanic</i> ? V	Vhy?
What do you still want to know about <i>Titanic</i> ? Why?	
If you were a passenger on the <i>Titanic</i> , what would you want	to have happen to your story? Why?



Family Interview Graphic Organizer

Name:		
Class:		Date:
Directions: Choose a family members the graphic organizer below	per. Interview them about a life-char to write notes about the event.	nging event they experienced.
Interview on	(Date) with	
(Name), who is my		(how related)

Who

Who was at the event? Who did it impact?

What

What happened? How did it happen?



Where

When and where did the event happen?

Why

What caused it to happen? Why is it important?





6. Being In Charge: Captain Smith's Final Voyage

Titanic Theme: Working on Titanic

Skills: Researching; Interviewing; Notetaking; Leadership; Technology; Role Play; Interpretation; Recording

Subjects: Writing; Reading Informational Texts; Speech/Language; Theatre; Theatre Arts; Social Studies



Objective:

 Students will understand Captain Smith's role and how his decisions impacted the fate of *Titanic* through role play.

Essential Questions:

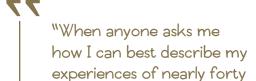
- How do our decisions impact our lives?
- What influences affect our decisions and, specifically, the decisions made by Captain Smith?
- What is the role and importance of a captain?
- Knowing what we know now, could Captain Smith have avoided the tragedy?

Time: 45 minutes

• • •

Assessment:

- Helm Wheel graphic organizer
- Interview the Captain Worksheet
- Flip.com interview recording
- Student Journal Response



years at sea, I merely say

'uneventful.'"

—Edward John Smith, *Titanic* Captain



Materials:

- Anchor Chart Paper or
 Whiteboard and Markers
- Helm Wheel Graphic Organizer
- Interview the Captain Worksheet
- Access to a Flip.com account
 - How to set-up an account: https://help.flip.com/hc/en-us /articles/360051539934
 - -Getting-Started-Educators
- General supplies (pencil, paper, etc.)



Procedures

- 1. Ask students, "Who was in charge of the Ship *Titanic* while it was sailing at sea?" (*The captain*.) Play video to introduce Captain Edward John (EJ) Smith, captain of the RMS *Titanic*: https://www.youtube.comz/watch?v=AaLYk0EBibE. Explain how this is an actor's portrayal of the famous captain of the *Titanic*.
 - a. Optional video: Black and white footage of Captain Smith walking along the deck of *Olympic*, *Titanic*'s sistership with no dialogue: https://www.youtube.com/watch?v=-P-t4kXS2dA
- **2.** Explain how today's lesson will focus on Captain Smith and his role within the *Titanic* story. Create anchor chart with students. Ask, "What does it take to be a good captain?"

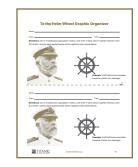
A good captain has responsibility, leadership, command, charisma, logical/critical thinking skills, planning/organizing skills, knowledge of ships and crew, experience, etc.

- 3. Share with students this quote from https://kids.kiddle.co/Sea_captain, "A sea captain, ship's captain, captain, master, or shipmaster, is a high-grade licensed mariner who holds ultimate command and responsibility of a merchant vessel. The captain is responsible for the safe and efficient operation of the ship—including her seaworthiness, safety and security, cargo operations, navigation, crew management, and legal compliance—and for the persons and cargo on board."
 - a. Ask, "What new information have we learned about the role of a captain?"

Captains have ultimate control and command of the Ship. They are responsible for the entire ship and the people and things on board. It is a top-level position. They make sure the ship is safe, secure, and efficient.

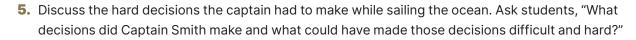


4. Explain that students will be learning about the role of *Titanic's* captain, his experience, and what he experienced on board. Pass out the **To the Helm Wheel**Graphic Organizer. Research and write eight facts about the life and history of the captain on the graphic organizer using the Historic Molly Brown House Museum website: https://mollybrown.org/captain-smith/



Captain Smith was responsible for the Ship, and some have blamed him for the disaster. Before Titanic, he worked through the ranks to eventually join White Star Line in 1880. The first ship he commanded was the Baltic in 1887. "Smith earned a reputation for being popular with both crew and passengers" and was "... dubbed 'the Millionaire's Captain' because he was so well-liked by wealthy travele.

dubbed 'the Millionaire's Captain' because he was so well-liked by wealthy travelers." "Captain Smith also had particular experience with commanding especially large ships." According to "... rumors... Captain Smith faced pressure from the White Star Line to keep up the Ship's speed, or that he ignored warnings from other ships about the presence of icebergs." It was decided that "... Captain Smith commanded the Ship according to the best practices for a captain with his experience..."





Captain Smith did not stop despite six ice warnings on April 14, 1912. He ordered "women and children first" when filling the lifeboats. He maintained *Titanic*'s speed. He was close to retirement when he sailed *Titanic*. In the end, he decided to go down with the Ship.

6. Discuss with students the differences between being experienced vs. overconfident. Ask, "Does this idea of experience vs. overconfidence connect with Captain Smith? If so, how so?"

Yes, it does because Captain Smith was a very experienced captain and that might have made him overconfident in *Titanic* and his abilities to sail through icy waters. No, it does not because Captain Smith was a very experienced captain and knew how to sail icy waters while being safe and efficient. Hitting the iceberg was just an unforeseeable accident.



- 7. Pass out the Interview the Captain sheet. Explain that students will demonstrate their understanding of Captain EJ Smith by answering the questions on the sheet as if they were the captain himself. Have students write their answers using first-person pronouns.
- 8. Pair students to act out and record their answers. One person will act as the interviewer and the other person will act as Captain Smith. The interviewer will read the questions on the sheet and the captain will read aloud what they wrote for their answers. Students will record their interview using Flip.com on their 1:1 devices. Encourage students to embody Captain Smith. Students should brainstorm what Captain Smith would act and sound like.



- a. Reverse the roles and repeat the steps for the other student. Each student will record their own separate video portraying the captain.
- 9. Journal: What do you think was Captain Smith's hardest decision? Why was it so hard? What would you have done?





Working on Titanic Additional Activities and Resources

Optional Extension Activities:

- Write a newspaper article or a longer report highlighting Captain Smith's *Titanic* maiden voyage or his sailing history.
- Create a timeline of the ice warnings. How much time passed between each warning?
 What's the time difference between the first and last warning? Connect the warning times with events of that Sunday.
- Do a character analysis of Captain Smith with a separate list of character traits. Either draw, have a picture, or model of Captain Smith and surround him with words describing his traits.
 - PDF of character traits: https://www .readwritethink.org/sites/default/files /resources/lesson_images/lesson807/traits -list.pdf
- Write a script about Captain Smith's life, dress up as a captain, and explain the responsibilities of commanding a ship, like a how-to guide for being a captain.
- What would you want to be your legacy? What kind of story would you like people to tell about you?

Resource Materials:

- TikTok KJFish, Costumed actor portraying Violet Jessop talking about Arthur Priest (Another crew member who survived multiple ship collisions): https://www.tiktok.com/@ kjfish/video/6897299017995209990?lang=en
- TikTok KJFish, Survivor Compensation: https://www.tiktok.com/@kjfish/ video/6879890121743748357?lang=en
- Dougherty, Terri, Sean Stewart Price, and Sean McCollum. Eyewitness to Titanic; From Building the Great Ship to the Search for its Watery Grave. Mankato: Capstone Young Readers, 2015. ISBN: 978-1-62370-131-4

Florida State Education Standards:

SS.6.W.1.6 Describe how history transmits culture and heritage and provides models of human character.

ELA.4.C.4.1, ELA.5.C.4.1, ELA.6.C.4.1 Conduct research to answer a question, organizing information about the topic and using multiple reliable and valid sources.

ELA.4.C.2.1, ELA.5.C.2.1, ELA.6.C.2.1 Present information orally, in a logical sequence, using nonverbal cues, appropriate volume, clear pronunciation, and appropriate pacing.

ELA.4.C.3.1, ELA.5.C.3.1, ELA.6.C.3.1 Follow the rules of standard English grammar, punctuation, capitalization, and spelling appropriate to grade level.

ELA.4.C.5.1, **ELA.5.C.5.1**, **ELA.6.C.5.1** Arrange multimedia elements to create emphasis in oral or written tasks.

SC.35.CS-PC.3.1 Identify digital information resources used to answer research questions (e.g., online library catalog, online encyclopedias, databases, and websites).

TH.4.F.1.1 Create a character based on a historical figure and respond to questions, posed by the audience, about that character

TH.4.S.2.1, TH.5.S.2.1 Collaborate with others to create productions and solve challenges.

TH.4.S.3.2 Use information gained from research to shape acting choices in a simple, historically based scene.

TH.5.S.3.1 Create and sustain imagined characters and relationships, using basic acting skills, to tell an original story based on historical, literary, or everyday situations.

TH.68.S.3.1 Develop characterizations, using basic acting skills, appropriate for selected dramatizations.

TH.4.H.1.2, **TH.5.H.1.2** Participate in a performance to explore and celebrate a variety of human experiences.

TH.68.H.1.1 Explore potential differences when performing works set in a variety of historical and cultural contexts.

TH.4.H.3.2 Compare a historical play with actual historical events.

TH.5.H.3.4 Act out a character learned about in another content area.

TH.4.C.3.2, TH.5.C.3.2 Use a photograph, sculpture, or two-dimensional work of art to inspire creation of an original scene or monologue.





To the Helm Wheel Graphic Organizer

Class:	Date:
Directions: Go to mollybrown.org/captain-set. EJ) Smith, one for each spoke/handle of the	smith/, and write 7 facts about Captain Edward John e captain's helm wheel below. Example: Smith left school and I
	became a sailor as a teenager.
ame:	
lass:	Date:
Directions: Go to mollybrown.org/captain-setJ) Smith, one for each spoke/handle of the	smith/, and write 7 facts about Captain Edward John e captain's helm wheel below.





became a sailor as a teenager.

Interview the Captain

Name:	
Class:	Date:
Directions: Imagine you are Captain Edward John (EJ) Sr do an interview while on board the Ship on April 14, 1912 (k questions from his perspective. Use first-person pronour	pefore the disaster). Answer the following
Example: Who are you and what is your job? <u>I am Capta of the ship Titanic.</u>	in Edward J. Smith, and I am the captain
1. What do you do on board the RMS <i>Titanic</i> ?	
2. How do you feel about sailing <i>Titanic</i> and overseeing	all of these passengers and crew? Why?
3. What are two hopes and two worries for <i>Titanic</i> 's main	den voyage? Why those?
4. What are two of your thoughts on the many ice warning	ngs sent to <i>Titanic</i> ?



7. Tossing and Turning: An Iceberg's Journey

Titanic Theme: Collision/Sinking

Skills: Measuring; Graphing; Experimenting; Recording; Hypothesizing; Analyzing; Reading; Writing

Subjects: Science; Ice Flow; Buoyancy; Math; Social Studies; Engineering Technology; Speech/Language; English



Objective:

 Students will evaluate *Titanic's* structural damage from her iceberg collision by conducting a science and engineering hands-on experiment.

Essential Questions:

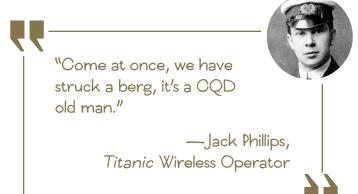
- What are the scientific principles behind an iceberg?
- How did an iceberg and the Ship's construction impact the *Titanic*?
- How can you evaluate *Titanic's* construction and her watertight compartments?

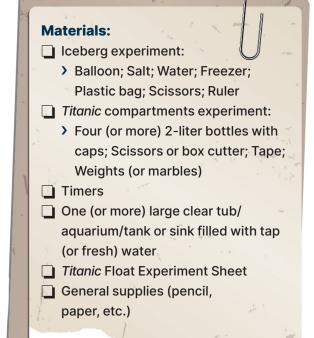
Time: 45 minutes



Assessment:

- Titanic Float Experiment SheetThe student float final construction
- Student Journal Response







To prepare in advance:

- Fill a balloon with salt water, seal, and tie the end of the balloon.
- Leave the balloon in the freezer overnight (put inside plastic bag or bowl to prevent potential spilling).
- Remove the balloon from freezer and cut the balloon off the ice with scissors.
- Fill a clear tub/aquarium/sink with tap (or fresh) water.
- Get at least two 2-liter bottles. Cut about a 3-inch-wide rectangular opening off the side of each 2-liter bottle that does not span the circumference. Place it on its side with the cap in place. Also cut off the bottoms of two other 2-liter bottles. Insert and tape the two bottoms inside only one of the 2-liter bottles, so one will be an empty bottle and the other will have two watertight bulkheads inside.
 If you want to go beyond the one class model, you may prepare a bottle for each student in class.

Procedures

- **1.** Ask the class, "What happened that caused the *Titanic* to sink?" (*Collision with iceberg*.) Overview that today's lesson will cover the fatal event of April 14 and 15, 1912 and the impact of the iceberg.
- 2. Explain how scientific investigations allow us to explore and understand the world around us, and that students will be observing and studying the scientific properties of icebergs. Put the ice in a large, clear tub/aquarium/sink filled with tap (or fresh) water. Have the class make observations about how ice looks and acts within the water.
 - a. Ask and discuss, "How much of the ice is below the water? How much is above?"
 - b. Measure how much of the iceberg is above and below the water line using a ruler.
 - c. "About what percent of the iceberg is below the surface?" (About 87-90%.)
 - d. "Where is the widest point of the iceberg?" (Below the water line.)
- 3. Explain that most of the iceberg is underwater because of its density.



When water freezes, it expands and becomes slightly less dense than the surrounding water. However, because the difference in density is so small, this still allows the iceberg to float. But only about 1/10th above the water line on average. Seawater is denser than freshwater because of the salt. The iceberg in this experiment should float slightly higher because it is denser.

4. Ask students, "How do you think this impacted the *Titanic*?"

Titanic could not have seen the whole iceberg. Most of the damage would have happened to the part of the Ship that is below the water line. It would have been hard to see. They would not have known how big it was. They would have needed to make a wider turn to get around it.

5. Using the A Timeline of the Sinking of the Titanic guide below, review the series of events of April 14 and 15. Ask, "What did you find most interesting about the final timeline of events for Titanic?"

The first lifeboat is launched an hour after the iceberg. There was an order for "women and children first." The band played till the end. There were no regular lifeboats the last 30 minutes of sinking. The events happened really quickly at the end. *Carpathia* arrived over an hour after *Titanic* disappeared. It took four hours to pick up all the survivors.







- Now we will see what happened to *Titanic* and her sinking. Hand out the *Titanic* Float Experiment Sheet, top two rows if doing whole class, bottom two rows if choosing independent work.
- 7. Take the empty 2-liter bottle with cap on and an opening on one side. This is your ship. Explain to students how this bottle represents the *Titanic* on the night of April 14. Ask, "What do they notice about it?" (*Empty without walls*.) Place it inside the same or different tub (decide beforehand if you want with or without iceberg). Add enough weight (marbles work well) so the boat floats evenly with the cap half covered by water.



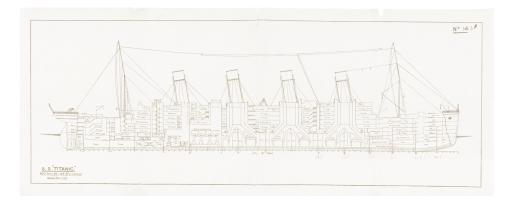
8. Remove the cap and, using the *Titanic* Float Experiment sheet, record the time of how long it takes it to sink (using devices or timers). Discuss observations.

The water rushed in and filled the ship model. The ship model sank very quickly. There was nothing to slow down the water.

- **9.** Use the bottle with watertight bulkheads created in advance and add the same weights as before, spreading them evenly between the three compartments. Place in water, remove the cap, and record how long it takes this boat to sink (using devices or timers).
- 10. Ask and discuss, "How did watertight bulkheads affect Titanic's sinking, based on our experiment?"

The walls slowed the water down. The bulkheads helped keep *Titanic* afloat. The water tipped the boat forward. The walls slowed the water and gave people time to escape. These were not enough because it still sank.

- **11.** Optional extension: cut holes into the model's middle compartment and see how long it takes to sink.
 - a. Explain that the holes added to the side of the model represent the openings created by the iceberg where the rivets that held the metal plates together broke from the pressure, not the metal plates themselves tearing.
 - b. Teachers may also have students try to make their own ship designs with watertight compartments with 2-liter bottles and tubs of water.
- **12.** Journal: Based on today's lesson, what factors affected *Titanic* on April 14 and how she sank? If you could change one thing about that day, what would it be and why?





Collision Additional Activities and Resources

Optional Extension Activities:

- Add Merriam-Webster terms and definitions of ice during modeling "boat":
 - Iceberg: a large floating mass of ice detached from a glacier
 - > "Berg": a shortened name for an iceberg
 - > Glacier: a large body of ice moving slowly down a slope or valley or spreading outward on a land surface
 - Calve: to separate or break so that a part becomes detached
 - > Capsize: to turn over; overturn
 - Ice floe: a large, flat, free mass of floating sea ice
 - > Growler: a small iceberg
- Recreate the dimensions of a lifeboat (30 feet long by 9 feet wide by 4 feet deep) using tape on the floor. Have students observe how many of them would fit and reflect on the size (collapsible lifeboat dimensions are 27.5 feet long by 8 feet wide by 3 feet deep). Remember, a lifeboat is arched on the sides, so 9 feet is its widest point in the center.
- Create a mini-book to overview the major events and timeline of *Titanic* sinking, using https://marekbennett.com/1sheet/

Resource Materials:

- TikTok KJFish, Iceberg Warnings: https://www.tiktok.com/@kjfish/ video/6891423717612702982?lang=en
- General summary of events: https://www .history.com/this-day-in-history/Titanic-sinks
- Disaster Strikes (Overview of tragedy): https://www.DiscoverTitanic.com/Titanic -history/interesting-facts/
- National Geographic Sinking Article for Students: https://education.nationalgeographic .org/resource/Titanic-sinks/
- National Geographic video of Titanic sinking CGI: https://www.youtube.com /watch?v=FSGeskFzE0s

- National Geographic video of "How Did the 'Unsinkable' Titanic End Up at the Bottom of the Ocean?": https://www.youtube.com /watch?v=4pywFRpEcZA
- Blohm, Craig E. The Sinking of the Titanic: Historic Disasters and Mysteries.
 San Diego: Referencepoint Press, 2020.
 ISBN: 978-1-68282-635-5.

Florida State Education Standards:

SS.6.W.1.1 Use timelines to identify chronological order of historical events.

ELA.4.C.3.1, ELA.5.C.3.1, ELA.6.C.3.1 Follow the rules of standard English grammar, punctuation, capitalization, and spelling appropriate to grade level.

SC.4.P.8.1, **SC.5.P.8.1** Compare and contrast the basic properties of solids, liquids, and gases, such as mass, volume, color, texture, and temperature.

SC.4.P.8.2 Identify properties and common uses of water in each of its states.

SC.5.P.9.1 Investigate and describe that many physical and chemical changes are affected by temperature.

SC.5.P.10.2 Investigate and explain that energy has the ability to cause motion or create change.

SC.4.P.10.4 Describe how moving water and air are sources of energy and can be used to move things.

SC.5.P.13.1 Identify familiar forces that cause objects to move, such as pushes or pulls, including gravity acting on falling objects.

SC.4.N.1.1, SC.5.N.1.1 Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.

SC.4.N.1.2, **SC.6.N.1.2** Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.

SC.5.N.1.3 Recognize and explain the need for repeated experimental trials.

SC.6.N.1.4 Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.

SC.4.N.1.5, SC.6.N.1.5 Compare the methods and results of investigations done by other classmates.

SC.4.N.1.6 Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.

SC.4.N.1.8 Recognize that science involves creativity in designing experiments.

WL.K12.IL.8.3 Discuss familiar topics in other subject areas, such as geography, history, music, art, science, math, language, or literature.



A Timeline of the Sinking of the *Titanic*

Name:	
Class:	Date:

Sunday, April 14

11:40 p.m.

Frederick Fleet sees the iceberg and calls the Bridge saying "Ice right ahead," but it scrapes the starboard side of the RMS Titanic, opening the first six watertight compartments.

11:50 p.m.

Captain Smith is informed of flooding in mailrooms, third class cabins, and compartments. Thomas Andrews predicts the Ship has about one or two hours before sinking.

Monday, April 15

12:05 a.m.

Lifeboats are uncovered and made ready for evacuating the Ship.

12:15 a.m.

Titanic begins sending distress calls for help. The band plays music to calm passengers.

12:40 a.m.

Titanic launches the first lifeboat.

12:45 a.m.

Titanic lights the first distress rocket for help.

1:00 a.m.

Titanic conserves electricity by turning off ventilation fans. Water seen at the base of the Grand Staircase.

1:50 a.m.

The last of the regular lifeboats are launched, leaving only the four collapsible lifeboats.

2:05 a.m.

Titanic's bow has sunk below water and the stern's propellers become visible.

2:10 a.m.

The final distress signal from *Titanic* ends abruptly.

2:15 a.m.

The last collapsible lifeboat floats off *Titanic* as the deck goes under. *Titanic*'s band plays its final set.

2:18 a.m.

Titanic's lights go out. The Ship's stern (back half) lifts out of water, and the strain breaks the Ship into two parts.

2:20 a.m.

Titanic disappears in the waters of the North Atlantic.

3:30 a.m.

Carpathia arrives near the site.

4:10 a.m.

Carpathia begins picking up survivors from the water.

8:30 a.m.

Carpathia leaves the accident scene to New York City with about 700 survivors on board.

Titanic Float Experiment

Name:	
Class:	Date:
Directions: Record the variables that you change experiment. Consider where you distribute the w	ed and how long your model took to sink during the veight and where you put the bulkheads.
Variable (What did you change?)	Time (How long did it take to sink?)
Class:	
Class:	
Class.	
Independent:	
Independent:	
For after the experiment:	
1. What did you change to make your ship stay	afloat?
2. Why did the <i>Titanic</i> not sink immediately?	
3. What iceberg fact from today's lesson would	help you navigate icy waters with this ship?





8. Did That Really Happen?: Titanic Importance of Accuracy

Titanic Theme: Worldwide Impact

Skills: Reading; Researching; Comparing; Analyzing; Writing; Outlining; Fact Checking;

Subjects: Journalism; English; Social Studies; Reading Informational Texts; Writing; Visual Arts; Language; Speaking/Listening



Objectives:

- Students will compare and contrast *Titanic* misinformation and accurate information by examining 1912 newspaper headlines.
- Students will explore writing and journalism skills by creating their own *Titanic* newspaper.

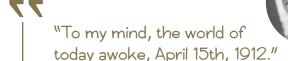
Essential Questions:

- What is misinformation and why is it there?
- How important is it to check sources for accuracy?
- How can inaccuracies impact people?
- Should there be consequences for spreading inaccurate information?

Time: 40 minutes

Assessment:

- Titanic Newspaper Template
- Student Journal Response



—Jack Thayer, 17-year-old *Titanic* First-Class Passenger







Procedures

- 1. Begin with a game of Telephone. Students create either one row or teams. One person begins the game by whispering a sentence in the next person's ear, that person whispers what they heard into the next person's ear; and so forth until it reaches the end. The goal is to have no one else hear you but still share the message with the next person. The last person shares that message with the class or group. Most of the time, the sentence is changed by the end.
 - a. Example: "At 882 3/4 feet long, *Titanic* totally tried to miss the icy iceberg, shouting from the top of the crow's nest, 'lceberg right ahead!""
- 2. Explain how information can be misheard, misinterpreted, and inaccurate. This is called misinformation, which means information that is not correct. *Titanic*'s story had misinformation about it back then and still does today.
 - a. Ask, "Why do you think there is misinformation?" and "How can you relate this back to the game of Telephone?"

During the game of Telephone, the message/words got changed into something else. We misheard what people said. We didn't fully understand what was said and didn't get the chance to have it repeated. We did not take the time to really remember everything. We created misinformation.

3. Explain when *Titanic* sank, people wanted to know what happened immediately. Ask, "How do you think people learned about news of *Titanic*'s sinking?"

People learned the news through newspapers or telegrams. There were no phones, televisions, computers, or internet back then.

- **4.** Explain that newspapers worked to deliver the news about *Titanic* to the public as quickly as possible. Some got their information directly from *Titanic* survivors and crew on the rescue ship *Carpathia* using telegrams messages. Some newspapers did not. Newspaper headlines were changing every day and were different from place to place. The goal was to spread the news as fast as possible, not as accurately as possible.
- **5.** Display newspaper headline examples to the class or hand out individually or in groups. Examine and evaluate three real, historical 1912 *Titanic* newspaper headlines. You may use your own or use those provided in the separate supplemental materials online at DiscoverTitanic.com.
 - a. Ask students, "What do you notice with these headlines?"

I notice different newspapers telling different stories. Some newspapers are spreading misinformation, like the *Titanic* not sinking, being towed to shore, everyone surviving. There are some accurate newspapers. Each share only a part of the story.

b. "What could happen because of these headlines with different information?" and "How could this affect victim's families?"

People will not know what happened. People might believe that everything is okay. People might be misinformed or believe misinformation.



Families could believe that everything is fine, that their loved ones are still alive, that their loved one is dead, that the Ship didn't sink. This could create confusion if you saw different newspapers telling different stories.

6. Explain some newspapers provide accurate information, while others do not.



Some highlighted accurate information includes Titanic struck an iceberg on April 14 and sank April 15, about 1,500 people perished, about 700 survived, Carpathia was the rescue ship, the survivors were being taken to New York, and names of certain passengers and crew, like Captain EJ Smith, John Jacob Astor IV, the Countess of Rothes, and Isidor and Ida Straus.

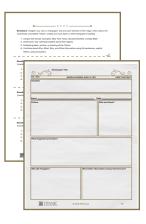
a. Ask, "Which newspaper is the best? Which one is the worst? Why?"

The most accurate headlines are the best because people will know what really happened. The most inaccurate headlines are the worst because people will not know what really happened.



- 7. Instruct students that they are now in charge of creating a newspaper that shares accurate information about the *Titanic* tragedy. Students will create their own

 7. Titanic Newspaper, using the Directions and Template sheets. Students may use notes, devices, or teacher-provided documents to complete the assignment.
- **8.** Explain that *Titanic* arrived in Pier 54 of New York Harbor at night on April 18, 1912, to a crowd of people waiting to see the survivors of the historic tragedy. Ask students, "How many days between *Titanic*'s sinking and her arrival in New York?" (3 days from April 15-April 18, 1912.)





When they arrived, people were able to hear about survivor experiences and find out if their loved ones survived. Even though it was a few days, the misinformation about Titanic was already created and spread around so much that it is still around today.

9. Ask, "Why do you think misinformation about *Titanic* is still around today, even after survivors started telling their stories?"

People have different accounts as to what happened on and to *Titanic*. The fact that the Ship split in two was not known until the *Titanic* wreck was discovered. People heard untrue stories about *Titanic*, believed they were true, and kept retelling them and spreading misinformation. People did not check if the information was accurate before sharing. The information has been shared so much that people believe it is true, even though it is not.



10. Journal: How did newspapers impact the history of *Titanic*? Why is it important to have accurate information? What are the consequences of misinformation, as seen with *Titanic*?



Worldwide Impact Additional Activities and Resources

Optional Extension Activities:

- Examine multiple newspaper headlines (Try to find your local newspaper from April 15, 1912)
- Read case of mistaken identity during body recovery: https://www.saltwire.com/atlantic -canada/lifestyles/titanic-remembered -the-tragic-tale-of-mistaken-identity-and -compounded-loss-100573706/
- Have a prefix study for "mis-" (wrongly or incorrectly) for the words misheard, misinterpret, misunderstood, misinformation.
- Extend the newspaper with a revising and editing process into a larger-scale newspaper article or essay.
- Use Library of Congress Titanic lesson to evaluate primary and secondary sources: https://www.loc.gov/classroom-materials/ Titanic-shifting-responses-to-its-sinking/
- If Titanic was in the age of social media, what would happen with the news of Titanic? How would it be the same or different than in 1912?

Resource Materials:

- Replica 1912 newspapers using the "TITANIC: The Actual Story as Reported in Original 1912 Newspapers" pack.
- TikTok realhistoryuncovered, Newspaper / Inquiries: https://www.tiktok.com/@real historyuncovered/video/723426645377 4585134?lang=en&q=titanic%20Newspa pers&t=1686158815585
- TikTok KJFish, Aftermath of *Titanic*: https://www.tiktok.com/@kjfish/video/6873289555160599813?lang=en
- Dougherty, Terri, Sean Stewart Price, and Sean McCollum. Eyewitness to Titanic; From Building the Great Ship to the Search for its Watery Grave. Mankato: Capstone Young Readers, 2015. ISBN: 978-1-62370-131-4.

Florida State Education Standards:

SS.5.A.1.1 Use primary and secondary sources to understand history.

SS.6.W.1.3 Interpret primary and secondary sources.

SS.6.W.1.6 Describe how history transmits culture and heritage and provides models of human character.

ELA.4.C.1.3, ELA.5.C.1.3, ELA.6.C.1.3 Write to make a claim supporting a perspective with logical reasons, relevant evidence from sources, elaboration, and an organizational structure with varied transitions.

ELA.4.C.1.4, ELA.5.C.1.4, ELA.6.C.1.4 Write expository texts to explain and/or analyze information from multiple sources, using a logical organizational structure, relevant elaboration, and varied transitions.

ELA.4.C.3.1, ELA.5.C.3.1, ELA.6.C.3.1 Follow the rules of standard English grammar, punctuation, capitalization, and spelling

ELA.4.R.3.3, **ELA.5.R.3.3** Compare and contrast primary and secondary sources related to the same topic.

VA.5.0.2.2 Use a variety of sources for ideas to resolve challenges in creating original works.

appropriate to grade level.

VA.4.S.1.3, VA.5.S.1.3 Create artworks to depict personal, cultural, and/or historical themes.

VA.68.S.1.3 Use ideas from cultural, historical, and artistic references to create personal responses in personal artwork.

SP.PK12.US.1.1b Apply skills and strategies, such as decoding multisyllabic words; analyzing vocabulary, including roots and affixes; making associations; and using visual imagery and mnemonics, to recall and understand information from a variety of media sources.



Directions: Imagine you own a newspaper and you just learned of the tragic news about the "practically unsinkable" *Titanic*. Create your own April 15, 1912 newspaper including:

- 1. Unique title (similar examples: New York Times, Sacramento Bee, or Daily Mail)
- 2. Impressive, eye-catching headline about the tragedy
- 3. Detailed graphic, picture, or drawing of the Titanic
- **4.** 4 articles about Who, What, Why, and Other Information using full sentences, capital letters, and punctuation.



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EDDICE TWO CENTS

VOL. 1504	MONDAY EVENII	NG, APRIL 15, 1912	PRICE	TWO CENTS
Headline				
Name:		D	ate:	
Picture			Who was there?	
What happened and when?				
Why did it happen?		What other infor	mation is important to k	now?

9. Keeping a Record: Mapping Recovered *Titanic* Artifacts

Titanic Theme: Wreck Site/Exploration/

Recovery

Skills: Reading; Mapping; Graphing; Conserving; Charting

Subjects: Social Studies; Reading; Listening; Visual Arts; Speaking/Listening; Language



Objective:

 Students will learn the importance of accurate maps by mapping the *Titanic* wrecksite using a grid of latitude and longitude.

Essential Questions:

- What is the importance of maps and how do we use them?
- How can we record exact locations and return to those specific places?
- Why is mapping the ocean floor important to understanding the *Titanic* story?
- What happened to *Titanic* after she sank, and what are people doing to preserve her history?

Time: 40 minutes

Assessment:

- Mapping Titanic Site sheet
- Student Journal Response



"Our legacy from the wreck, our debt to those who were lost with her, is to see, as far as in us lies, that such things are impossible ever again."

—Lawrence Beesley, Titanic Second-Class Passenger



Materials:

- ☐ Titanic Wrecksite Map with Grid
- "Are We There Yet?" activity sheet
- Real, historical 1912 Titanic newspapers, headlines, and references of interest
- General supplies (pencil, paper, etc.)



Procedures

- 1. Have students participate in a speed round of questions. Ask students,
 - a. "When did Titanic sink?" (April 15, 1912.)
 - b. "Where did the *Titanic* sink?" (*In the middle of the Atlantic Ocean.*)
 - c. "What happened to the physical Ship right before *Titanic* fully sank?" (Titanic *broke into two parts, between the third and fourth funnel.*)
 - d. "How do we know that is absolutely true and not just misinformation?" (Because we discovered where Titanic is, and we dove down to see it.)
- 2. Explain that dives and expeditions to *Titanic* allow us to study the Ship and surrounding area called the "Debris Field" today, after 100 years. Ask students what they notice about *Titanic* after watching this NOAA (National Oceanic and Atmospheric Administration) video about the wrecksite and modern conservation efforts: https://www.youtube.com/watch?v=a1GxOZ736YM

The Ship looks different. It is underwater and has not been raised to the surface. The Ship looks green and brown and has things growing off it. *Titanic* is rusted. *Titanic* is falling apart or disintegrating because she has been underwater for the last 100 years. The Ship will continue to disintegrate over time and might eventually be fully gone. There are many things still on the ocean floor.

3. Explain that because of the growth in technology, we've been able to map sections of the ocean floor, including the *Titanic* wrecksite.

The location of where Titanic sank was a mystery until September 1, 1985, when Jean-Louis Michel of IFREMER and Dr. Robert Ballard from Woods Hole Oceanographic Institution (WHOI) discovered it in the mid-Atlantic Ocean. Since then, RMS Titanic, Inc. has made eight (now nine as of July 2024) dives to the ocean floor to recover artifacts and map the Titanic wrecksite to better understand what happened to the Ship.



In 2010, using advanced sonar technology, RMS Titanic, Inc. created the first full, detailed sonar map of the Titanic wrecksite, showing exact locations of the two halves of the Ship and other items in the Debris Field. This effort was a significant step in documenting the Ship's remains and understanding the underwater environment. This also shows Titanic's wreck without water, unlike film footage taken during expeditions.

- a. Expeditions Timeline by RMS Titanic, Inc.: DiscoverTitanic.com/expeditions/
- 4. Ask, "What are maps used for, and how do they help people?"

Maps are used by people to know where to go or how to find places and things. Maps show us where things are located. They show cities, countries, oceans, and many other areas.





- **5.** Pass out the **Mapping** *Titanic* **Site** sheet. Students will practice grid mapping and plotting important locations for the *Titanic* wrecksite. Grid mapping allows for approximate locations.
- 6. First, color in the squares marked for the Debris Field, Dishes, and Furniture, as indicated on the sheet. Students will then color the three pieces at the bottom of the sheet: Bow, Stern, and Boilers, according to the directions. Per teacher discretion, students will cut out the three pieces to glue each within the correct corresponding squares on the grid map. Some squares will have two or more colors.



- a. Per teacher discretion, if not cutting and gluing, students can match and color in the corresponding grid squares.
- **7.** Ask students, "What do you notice about the wrecksite map? What do you wonder? Ask what happened to those two halves of *Titanic*? What happened to all the things inside the Ship?"

The two halves went to the ocean floor and to separate, distant places (about 0.5 miles apart). The things inside the Ship were scattered along the ocean floor creating what's called the Debris Field. Many items are found around the Ship's stern.

8. Ask if any students have seen the up and down, side-to-side lines on a map or globe before (if one is available, show global map or globe to students, emphasizing the lines). Explain that students are now going to use these lines to find the exact location of the wrecksite in the Atlantic Ocean.



While a grid map gives approximate location, maps using latitude and longitude lines show exact location. Latitude lines go horizontally, or side-to-side. Longitude lines go vertically, or up and down.

The lines have specific numbers, or coordinates, and being able to read those numbers allow explorers, like Jean-Louis Michel, Dr. Robert Ballard, and PH Nargeolet, to not only know exactly where they are, but be able to return to an exact location in the future. That's how we know exactly where Titanic is, as well as where the icebergs were reported around the area in 1912.



- 9. Hand out the **Are We There Yet?** activity sheet, pointing out the latitudinal and longitudinal lines to help students understand and read them. Have students follow the directions on the sheet to locate and label places on a map. The sheet can be completed as a class, individually, or in groups. You may go as in-depth into latitudinal and longitudinal lines as is appropriate for your class.
- **10.** Summarize the lesson by asking, "Why are maps important? How are they used for *Titanic*?"



Maps allow us to find exact and approximate locations. They tell us where someone is in the world, or how to find or return somewhere. Maps are used by RMS Titanic, Inc., explorers, and researchers to know where the Titanic wrecksite is located, so people can return to it. Expedition crews use maps to study and plan visits to the wrecksite respectfully, safely, and efficiently.



11. Journal: What can we learn about *Titanic* from mapping the ocean floor and recovering her artifacts? Why could this be important?



Wrecksite Additional Activities and Resources

Optional Extension Activities:

- Explore the Nautilus Live Ocean Exploration
 Trust's Maritime History section for blogs,
 videos, and other information: https://nautilus live.org/gallery?field_topics_target_id=16
- Compare *Titanic* wreck photographs with other wreckages, using: https://www. encyclopedia-titanica.org/gallery/titanicwreck-pictures/ and https://oceanexplorer.noaa. gov/edu/themes/archaeology/multimedia.html
- Since September 1, 1985, when she was discovered, how long was *Titanic* sitting at the bottom of the ocean, unknown? What happened around the world while *Titanic* was waiting?
- Create a model or draw the *Titanic* bow as she looks at the bottom of the ocean.
- Research the work and life of Jean-Louis Michel and/or Dr. Robert Ballard, the men who discovered *Titanic*: https://oceanexplorer. noaa.gov/edu/oceanage/05ballard/, https:// nautiluslive.org/people/robert-d-ballard, and https://archive.ph/20070502103347/http:// iao.gso.uri.edu/iao/index.php
- Create a map of your classroom, school, neighborhood, house, store, etc. with labels.
- Explore National Geographic Mapmaker and type in addresses or coordinates: https://www .arcgis.com/apps/instant/atlas/index.html?ap pid=0cd1cdee853c413a84bfe4b9a6931f0d

Resource Materials:

- First photos of *Titanic* from the Michel/Ballard 1985 Expedition: https://www.whoi.edu /multimedia/first-photos-from-the-discovery -of-the-titanic/
- TikTok KJFish, Artifacts in Orlando Exhibition: https://www.tiktok.com/@kjfish/video/708889 8665447787819?lang=en
- TikTok Raf_Avila, Big Piece: https://www.tiktok.com/@raf_avila/ video/7023574575829011718?lang=en
- Expeditions Timeline by RMS Titanic, Inc.: https://www.DiscoverTitanic.com/expeditions/

- Woods Hole Oceanographic Institution (WHOI) article on "The Quest to Map *Titanic*": https://www.whoi.edu/oceanus/feature/the -quest-to-map-titanic/
- WHOI description of 1985 Discovery of RMS
 Titanic: https://www.whoi.edu/know-your
 -ocean/ocean-topics/ocean-human-lives
 /underwater-archaeology/rms-titanic/1985
 -discovery-of-rms-titanic/
- Major events since the discovery of *Titanic*: https://www.archaeology.org/issues/87
 -online/greatest-wrecks/651-titanic-jean
 -louis-michel-robert-d-ballard
- Detailed account of Jean-Louis Michel and Dr. Robert Ballard's discovery of *Titanic*: https://www.thehistorypress.co.uk/articles /how-was-the-wreck-of-the-titanic-discovered/
- Hubbard, Ben. Discovering Titanic: Searching for the Stories Behind the Shipwreck. London: Carlton Books, 2018. ISBN: 978-1-78312-412-1.

Florida State Education Standards:

SS.5.G.1.1, **SS.6.G.1.1** Use latitude and longitude coordinates to understand the relationship between people and places on the Earth.

SS.6.G.1.2 Analyze the purposes of map projections (political, physical, special purpose) and explain the applications of various types of maps.

SS.4.G.1.4, **SS.5.G.1.4**, **SS.6.G.1.4** Interpret political and physical maps using map elements (title, compass rose, cardinal directions, intermediate directions, symbols, legend, scale, longitude, latitude).

SS.6.G.1.5 Use scale, cardinal, and intermediate directions, and estimation of distances between places on current and ancient maps of the world.

SS.6.W.1.6 Describe how history transmits culture and heritage and provides models of human character.

SS.5.G.4.1 Use geographic knowledge and skills when discussing current events.

SS.5.G.4.2 Use geography concepts and skills such as recognizing patterns, mapping, graphing to find solutions for local, state, or national problems.

ELA.4.C.4.1, ELA.5.C.4.1, ELA.6.C.4.1 Conduct research to answer a question, organizing information about the topic and using multiple reliable and valid sources.

SC.35.CS-PC.3.1 Identify digital information resources used to answer research questions (e.g., online library catalog, online encyclopedias, databases, and websites).

VA.4.S.1.3, VA.5.S.1.3 Create artworks to depict personal, cultural, and/or historical themes.



Mapping Titanic Site Worksheet

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5								
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-								Titanic Dishes C2, C4, D5, E1-2, E4-6
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Mapping Titanic Site Worksheet

Answer Key

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Titanic Debris Field B3, C2-4, D1-7, E1-7,

F1-5, G2-5 Blue (color each square)

Blue (color each square)

Titanic Dishes

C2, C4, D5, E1-2, E4-6

Orange (color each square)

Titanic Furniture E2, E5 Purple (color each square)



Titanic Bow

Red





2

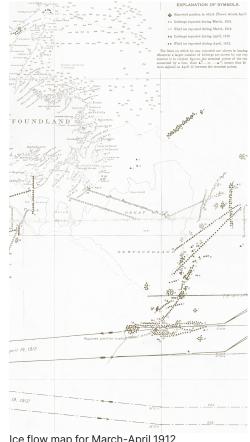


Are We There Yet?

Name:		
Class:	Date:	

Directions: Use the map on the next page and steps below to answer the following questions: Where was Titanic going when she hit the iceberg? Where did she sink into the ocean?

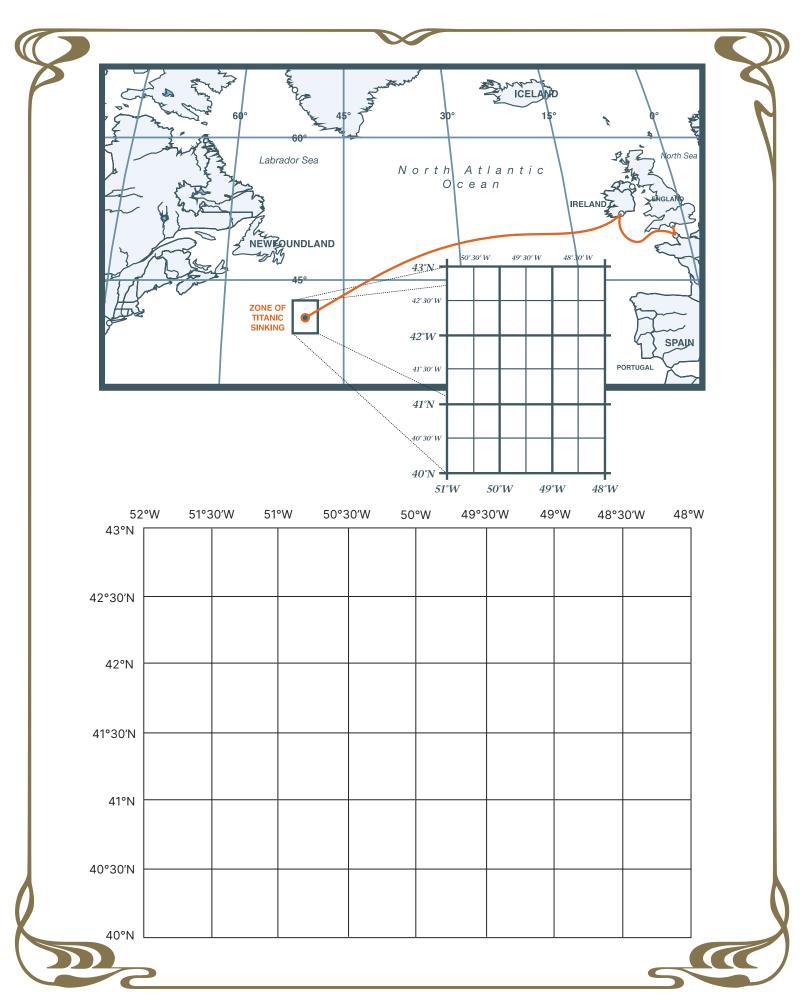
- 1. On your map, color the ocean light blue and label it Atlantic Ocean.
- 2. Color the land light green. Find where each of these countries is located and label them: Ireland, England, France, USA, and Canada.
- 3. Using the map below, draw in the route of *Titanic* in red. Put a star where the Ship sank.
- 4. If your state is shown on the map, label it and identify your city on the map.
- 5. Locate and label the icebergs and the Ship's positions.



Ice flow map for March-April 1912

Icebergs reported by other ships	41°51′N, 49°52′W 41°27′N, 50°8′W 42°5′N, 50°7′W
Titanic's first emergency message	41°46′N, 50°14′W
Wreck found	41°44′N, 49°56′W





10. Conserve vs. Restore: Preserving *Titanic*'s Artifacts and Legacy

Titanic Theme: Artifact Conservation/

Stewardship/Exhibitions

Skills: Investigating; Problem Solving;

Preserving; Hypothesizing

Subjects: Science; Conservation; Speaking/ Listening; Visual Arts; Engineering Technology;

Writing; Language; English



Objective:

 Students will describe the process of desalination and differentiate conservation and restoration through a hands-on artifact activity.

Essential Questions:

- What is the difference between conservation and restoration?
- How does RMS Titanic, Inc. conserve artifacts?
- What is the process like to restore objects?

Time: 40 minutes



Assessment:

- Conservation to Restoration Worksheet
- Student Journal Response



"The Ship is being slowly consumed by metal-eating bacteria. This is why we must recover what we can now from the site. In a few years, perhaps a decade or two, it will simply be gone."

—Stephane Pennec, Titanic Conservator



Materials:

- ☐ Ice cube or picture of ice cube
- Paper
- Conservation to Restoration Worksheet
- Conservation to Restoration Activity
 - Choices of objects: Bent and twisted paper clips; Broken pencil; Ripped-up picture; Torn paper in a container of water; Broken rubber bands; Broken coloring utensils like crayons or color pencils; Ripped paperback book
 - To restore, they may use: Tape (duct tape, masking tape, clear tape, etc.);
 Stapler; Glue (liquid, stick, etc.); Clay;
 Safety scissors; String; Paper towels (to dry wet paper)
- General supplies (pencil, paper, etc.)



Procedures

1. Show either an image or an actual ice cube (or something that melts over time). Ask students, "What will happen to this ice cube if I leave it out? What should I do if I want to save, protect, and keep it from changing?"

If you leave it out, it will melt and disappear forever. To save it, you can put it in the freezer or someplace cold. To protect it, you can put it in a container.

- 2. Explain the process of saving the ice cube from melting to preserve it is called conservation. Write the definition on the board for students to copy down: Conservation is the "careful preservation and protection of something," according to the Merriam-Webster Dictionary.
- **3.** Explain that just like the ice cube, the same process has been used for items recovered from the *Titanic* wrecksite to keep those objects safe, protected, and preserved.



RMS Titanic, Inc. is the Company ensuring that these recovered Titanic objects, called artifacts, are taken care of and will be around for enjoyment and study for as long as possible. The Company is the official salvor-in-possession to oversee and care for the wreck site. They have spent decades respectfully recovering artifacts and placing them on public display at TITANIC: The Artifact Exhibitions all over the world, allowing people to see real artifacts from the Ship. Titanic is currently deteriorating, or falling apart, because of the harsh ocean environment and microorganisms.

4. Ask, "How do you think people keep these recovered artifacts from deteriorating, or falling apart, like an ice cube out of the freezing cold?"

Maybe they put the artifact back in water to save it, like the ice cube back in the freezer. Maybe they protect it by putting it in a container.

5. Ask, "What kind of water is in the Atlantic Ocean?" (*Salt water.*) Explain that, over the last 100 years, these *Titanic* artifacts have absorbed a lot of salt from the ocean water.



Many artifacts at the Titanic wrecksite are made of metal, paper, fabric, and wood, which are porous and can absorb the liquid surrounding them. So, when you take these artifacts out of their salty ocean environment, they are unstable and will act like an ice cube taken out of a freezer. One way to conserve and protect these items is to use a process called desalination.

6. Write the definition for students to copy and discuss its connection to *Titanic*. Desalination removes salt from an item so it can stay whole and not fall apart outside of salt water.



For desalinating Titanic artifacts, objects are placed in a container with salt water, like their original ocean environment. Over time, the water is replaced multiple times with more and more fresh water, so the salt moves out from the object into the surrounding water. That, along with other conservation methods, stabilizes the object to where it can be dried and placed on display in a controlled environment, like a transparent case.

7. Ask, "Now that we know one way to conserve *Titanic* artifacts is using desalination, what is the difference between conservation and restoration (conserve and restore)?"



Conserving means protecting an object from more damage. Restoring means making an object look close to how it was originally.

8. By either demonstrating for the class or having each student participate, take a piece of paper and rip, cut, or crumble it. Ask students, "How can we conserve it and protect it from more damage?" and then "How can we restore the paper, get rid of the wrinkles, lay flat, or be back together?"

To conserve it, you can keep it away from sharp objects, like scissors, or put it down, stop touching it, or put it in a container. To restore it, you can use tape or glue to put it back together, use a pencil-edge to flatten it, or place an object on top of it.

- - 9. Divide students into groups. Each group will get objects that they will attempt to conserve and restore (see Materials). They need to document their observations and create a plan using the Conservation to Restoration sheet.
 - 10. Use the Conservation to Restoration sheet to:
 - a. Make a plan to conserve the objects.
 - b. Draw a picture and label what the object looks like now.
 - c. Draw a picture and label what they think it originally looked like before it was damaged.
 - d. Make a plan to restore the object.
 - e. Draw a picture and label the end result.
 - f. Write about the process of restoring the object.
 - **11.** As a class, discuss their process of conservation and restoration. Ask, "Were there any successes in conserving or restoring your item(s)? Any issues?"



You can make an item look similar to what it was at the beginning, but it's hard to restore it completely. After it has been torn, ripped, destroyed, or changed, the shape and look cannot be exactly how it was originally. You can conserve and protect these things from further changes. It is easier to conserve than restore. We could make things similar to what it was originally, but not completely restored.

12. Show students examples of conserved artifacts from the *Titanic* wreck site at https://www.discovertitanic.com/artifacts/ and ask, "How does conservation and restoration relate to *Titanic*?"

We can conserve what is recovered from *Titanic*; however, we cannot fully restore artifacts to what they originally looked like. We see conserved artifacts at *TITANIC*: The Artifact Exhibition. Artifacts are in cases to protect and conserve them. It takes a lot of work, time, and energy to conserve the artifacts from the *Titanic* wreck site. RMS *Titanic*, Inc. is responsible for conserving *Titanic* artifacts, so they have to think creatively and problem-solve to find ways to conserve items that may have been badly damaged.



13. Journal: What is the difference between conservation and restoration? How do these processes impact *Titanic*, its artifacts, and RMS Titanic, Inc.?



Artifact Additional Activities and Resources

Optional Extension Activities:

- Explore the desalination process using this lesson: https://www.education.com/sciencefair/article/fresh-water-salt-water/
- Using RMS Titanic, Inc. list of conserved artifacts, DiscoverTitanic.com/artifacts/, students research different artifacts, choose one, and:
 - > Create a report
 - > Craft a replica
 - Compare and contrast two artifacts
 - Research the historical significance and/or passenger connection
 - Research when it was brought up to the surface and which expedition
- Investigate rust (as found on *Titanic*) using this science lesson: https://ctsciencecenter.org /blog/science-at-play-instant-rust/

Resource Materials:

- TikTok KJFish, Dishes at Las Vegas: https://www.tiktok.com/@kjfish /video/6896989352786742534?lang=en
- TikTok KJFish, Artifacts in Orlando
 Exhibition: https://www.tiktok.com/@kjfish/video/7088898665447787819?lang=en
- TikTok Raf_Avila, Big Piece: https://www.tiktok.com/@raf_avila /video/7023574575829011718?lang=en
- Recovery and Conservation Process by RMS Titanic, https://www.DiscoverTitanic.com /expeditions/
- Geller, Judith B. TITANIC: The Artifact Exhibition. Atlanta: Geographics, 2001.



Florida State Education Standards:

- **SS.6.W.1.4** Describe the methods of historical inquiry and how history relates to the other social sciences.
- **SS.6.W.1.6** Describe how history transmits culture and heritage and provides models of human character.
- **ELA.4.C.4.1, ELA.5.C.4.1, ELA.6.C.4.1** Conduct research to answer a question, organizing information about the topic and using multiple reliable and valid sources.
- **SC.4.P.9.1** Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.
- SC.4.P.8.2, SC.5.P.8.2 Investigate and identify materials that will dissolve in water and those that will not and identify the conditions that will speed up or slow down the dissolving process.
- **SC.5.P.10.2** Investigate and explain that energy has the ability to cause motion or create change.
- **SC.4.P.12.1** Recognize that an object in motion always changes its position and may change its direction.
- **SC.5.P.13.1** Identify familiar forces that cause objects to move, such as pushes or pulls, including gravity acting on falling objects.
- **SC.5.P.13.2** Investigate and describe that the greater the force applied to it, the greater the change in motion of a given object.
- **SC.6.P.13.3** Investigate and describe that an unbalanced force acting on an object changes its speed, or direction of motion, or both.
- **SC.4.N.1.1** Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.
- SC.5.N.1.1, SC.6.N.1.1 Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.
- **SC.4.N.1.2** Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.
- **SC.6.N.1.4** Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.
- **SC.4.N.1.5**, **SC.6.N.1.5** Compare the methods and results of investigations done by other class-mates.
- **SC.4.N.1.6** Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.
- **SC.4.N.1.8** Recognize that science involves creativity in designing experiments.
- SC.4.N.2.1 Explain that science focuses solely on the natural world.
- **WL.K12.IL.8.3** Discuss familiar topics in other subject areas, such as geography, history, music, art, science, math, language, or literature.



Conservation to Restoration Investigation

Name:	
Class:	Date:
Draw a picture and label what the object looks like now:	Draw a picture and label what they think it originally looked like:
What's your plan to conserve the objects?	
What's your plan to restore the objects?	
Draw a picture and label the end result:	Write about the process of restoring the object.

Titanic Project Ideas

Additional suggestions for research projects, creative writing activities, and journal prompts:

The People

- Imagine the thoughts of Captain Smith as the Ship is going down.
- You made it into a lifeboat. Debate the reasons for and against rowing back to save more people.
- As the captain of Californian, explain your actions and decisions that night.
- What were the fates of the passengers who survived the sinking?
- Read a choose your own adventure-type book and let the class vote on the decisions. Have students try their hand at writing their own version as a passenger on *Titanic*.
 - Temple, Bob. The Titanic: An Interactive History Adventure. Revised edition. Mankato, Minn., Capstone Press, 2016. ISBN: 978-1-4296-3052.
 - > Wallace, Jim., et al. *Terror On the Titanic*. [Rev.]. Waitsfield, Vt., Chooseco, 2011. ISBN: 978-1-933390-24-6.
- Imagine the experiences of the crew aboard the rescue ship *Carpathia* and the recovery ship *Mackay-Bennett*.

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- Describe a research and recovery expedition to the wrecksite as the operator of a submersible.
- Create a travel brochure to advertise an adventure on board a recovery and exploration expedition today.
- Compare the travel times for a trans-Atlantic voyage of the Age of Exploration to today.
- Explore the science behind which artifacts have survived and why.
- What safety procedures and changes have been implemented as a direct result of this disaster?
- What ocean marine life is found around the Ship's remains?
- Compare and contrast the inquiries in the U.S. (Senate hearings) and Britain (Board of Trade investigation).

The Ship

- What were the fates of *Titanic's* sister ships, Olympic and Britannic, as well as that of the last surviving White Star Line ship, Nomadic?
- Create a 1912 travel brochure to advertise Titanic.
- Investigate unusual cargo, such as "dragon's blood" and a new Renault car.
- Investigate animals onboard as pets, livestock, and food.
- Compare and contrast *Titanic* to a modern cruise ship.
- Measure out the dimensions of a lifeboat (30 × 9 × 4 ft.) on the floor and mark with tape to have students see how many of them would fit (collapsible dimensions, 27.5 × 8 × 3 ft.).



National Curriculum Standards

All of the lessons provided are created with the following national curriculum standards for both social studies and English as led by the National Council for the Social Studies (NCSS) and National Council for Teachers of English (NCTE).

National Council for the Social Studies (NCSS)

https://www.socialstudies.org/national-curriculum-standards-social-studies-chapter-2-themes-social-studies

Elementary Lesson Plan Structure: Utilizes 9 of the 10 NCSS Standards Themes.

- Culture: Social studies programs should include experiences that provide for the study of culture and cultural diversity.
- Time, Continuity, and Change: Social studies programs should include experiences that provide for the study of the past and its legacy.
- People, Places, and Environments: Social studies programs should include experiences that provide for the study of people, places, and environments.
- Individual Development and Identity: Social studies programs should include experiences that provide for the study of individual development and identity.
- Individuals, Groups, and Institutions: Social studies programs should include experiences that provide for the study of interactions among individuals, groups, and institutions.
- Power, Authority, and Governance: Social studies programs should include experiences that provide for the study of how people create, interact with, and change structures of power, authority, and governance.
- Production, Distribution, and Consumption: Social studies
 programs should include experiences that provide for the
 study of how people organize for the production, distribution,
 and consumption of goods and services.
- Science, Technology, and Society: Social studies programs should include experiences that provide for the study of relationships among science, technology, and society.
- Global Connections: Social studies programs should include experiences that provide for the study of global connections and interdependence.

National Council for Teachers of English (NCTE)

https://cdn.ncte.org/nctefiles/resources/books/sample/standards doc.pdf

Elementary Lesson Plan Structure: Utilizes 11 out of 12 NCTE Standards.

- Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.
- Students read a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience.
- Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).
- Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
- Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts
- Students conduct research on issues and interests by generating ideas and questions, and by posing problems.
 They gather, evaluate, and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.
- Students use a variety of technological and informational resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.
- Students develop an understanding of and respect for diversity in language use, patterns, and dialects across cultures, ethnic groups, geographic regions, and social roles.
- Students participate as knowledgeable, reflective, creative, and critical members of a variety of literacy communities.
- Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).



Notes

