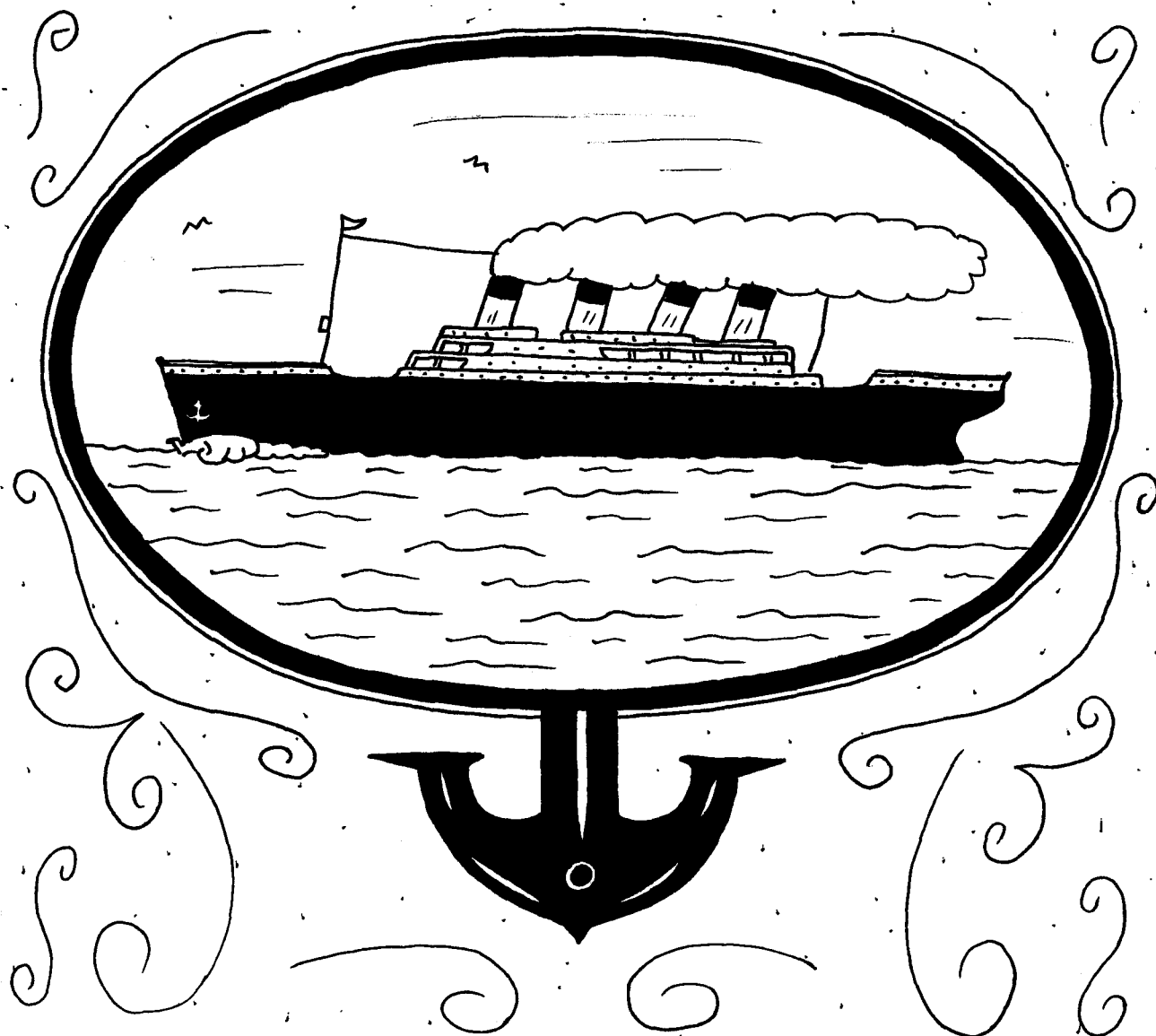


TITANIC



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RAINBOW HORIZONS PUBLISHING

TITANIC

UNIT OVERVIEW

In this thematic and integrated unit, students will experience the *Titanic* as never before. Part I is a compilation of lessons designed to be presented using a direct instruction format, followed by student activities to demonstrate knowledge of the topic. Lesson topics range from the *Titanic*'s construction to its sinking. Part II consists of optional lessons for the teacher to implement if time permits. These lessons allow the students to make thematic connections, identify practical applications, and simply have fun. Part III is a culmination project which demonstrates student knowledge of the *Titanic* by creating a "Living Museum". Students research the people that were aboard the *Titanic* and then write scripts and create displays for presentations. Part IV is a study guide for *A Night to Remember* by Walter Lord. The book is based on the actual events that occurred the night *Titanic* sank. This unit will make the popular topic of the *Titanic* much more personal in nature as the students learn about the individual lives that were affected by the sinking of this famous, "unsinkable" ship.

PART I - TEACHING LESSONS

In this section, seven lessons are outlined in detail. Teacher instruction followed by related student assignments helps students to learn about the *Titanic* in a structured setting.

- | | |
|---|-----------------------------|
| 1) Introduction | Schematic Map |
| 2) The R.M.S. Titanic | Math Worksheet |
| 3) Preparations for the Maiden Voyage | Morse Code Activity |
| 4) The Maiden Voyage | Map and/or Letter |
| 5) The Collision & Sinking of the <i>Titanic</i> | Buoyancy Experiment |
| 6) The Aftermath | Double Bar Graph |
| 7) The Discovery | Opinion Paper and/or Debate |

PART II - OPTIONAL LESSONS

- | | |
|----------------------------------|---------------------------------|
| 1) <i>Titanic</i> Bulletin Board | 7) Restoring Artifacts |
| 2) Ship Vocabulary | 8) Educational Media |
| 3) Pounds vs. Dollars | 9) Internet Websites |
| 4) Icebergs | 10) Cold Is Cold! |
| 5) Propaganda | 11) Brainteasers |
| 6) Advertisements | 12) Electromagnet Morse Code |

PART III - LIVING MUSEUM

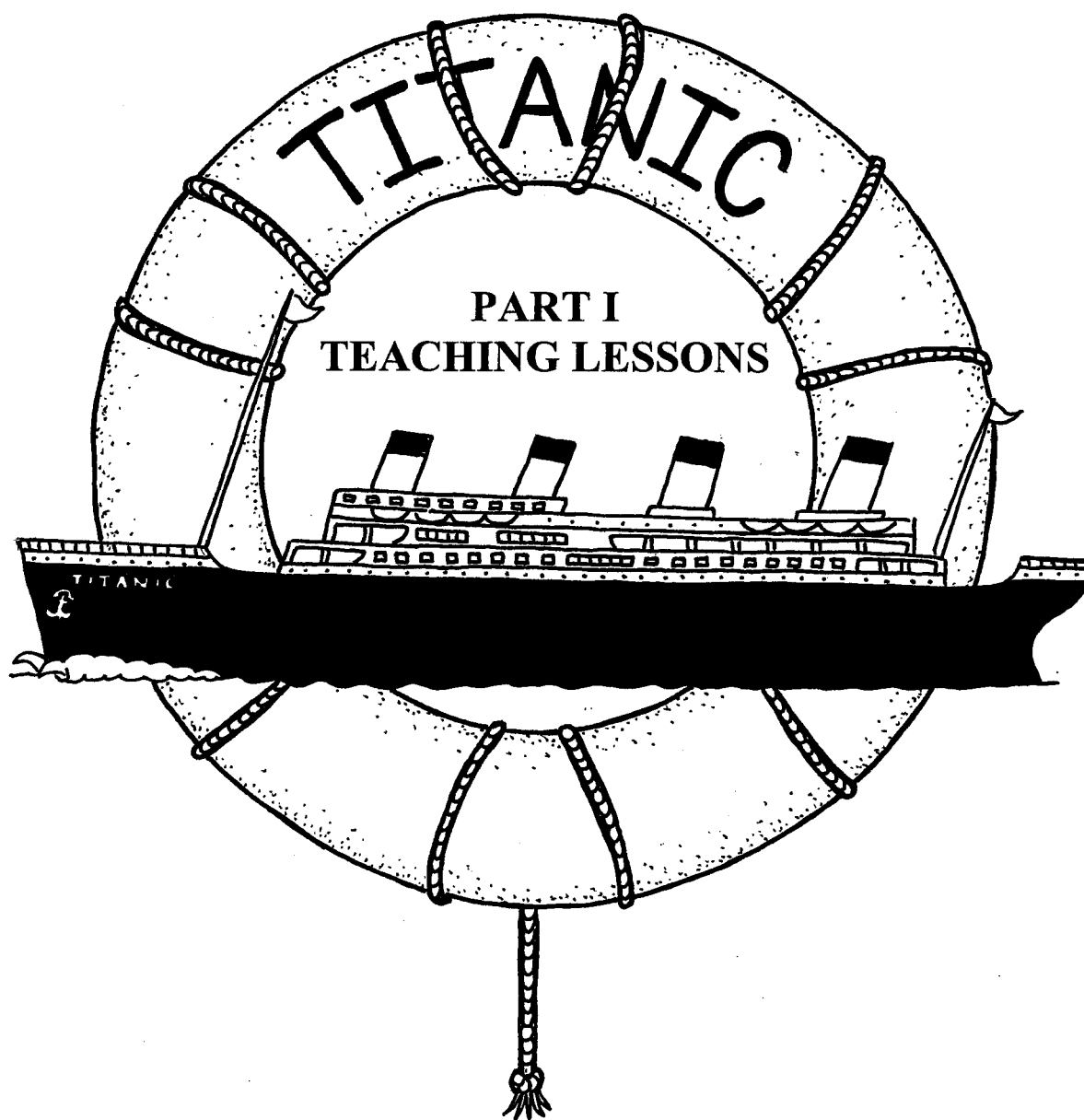
This section of the unit is a group assignment. Groups of students select and research passengers or crew members. Then, they write scripts and create displays for presentations. Ultimately, the presentations are given to visitors at *Titanic*'s "Living Museum".

PART IV - STUDY GUIDE

This section is a study guide for Walter Lord's book, *A Night to Remember*.

PART V - PICTORIAL HISTORY

This series of pictures (suitable for colouring) details the events surrounding the sinking of the *Titanic*.



PART I - TEACHING LESSONS: OVERVIEW

Consider supplementing each lesson with one or more of the following ideas :

- **Titanic Journals** - Students create their own “*Titanic Journals*” from daily entries about the lessons. They may take notes during instruction time or address a specific topic after the lesson. Allow the students enough time to take notes or write down their thoughts. Grade only the content of the entries, not the mechanics.
- **Titanic Resource Center** - Create a “*Titanic Resource Center*” for the students to use during the course of this unit. This may be a table, bookshelf or desk that is stocked with *Titanic* books, pictures, memorabilia and other resources. Students will enjoy browsing through the information. Consistently adding items to the center will peak student interest.
- **Titanic Educational Videos** - There are many educational videos and documentaries on the *Titanic*. (See Optional Lesson #8 in Part II for a list.) Preview the material and share related excerpts during lessons to help the students visualize the subject matter better.
- **Authentic Literature** - Walter Lord’s book entitled *A Night To Remember* is very highly acclaimed for its accurate description of the night *Titanic* sank. The book would supplement this unit well.

Note

There is a lot of conflicting information about the *Titanic* - perhaps because the survivors were in such shock during the ordeal that reality was skewed. Information in this unit was checked for accuracy; but, the bottom line is that no one is absolutely sure about many things dealing with this incident. This is just part of the mystery of the *Titanic*.



LESSON #1 - INTRODUCTION

Student Objectives and Activities

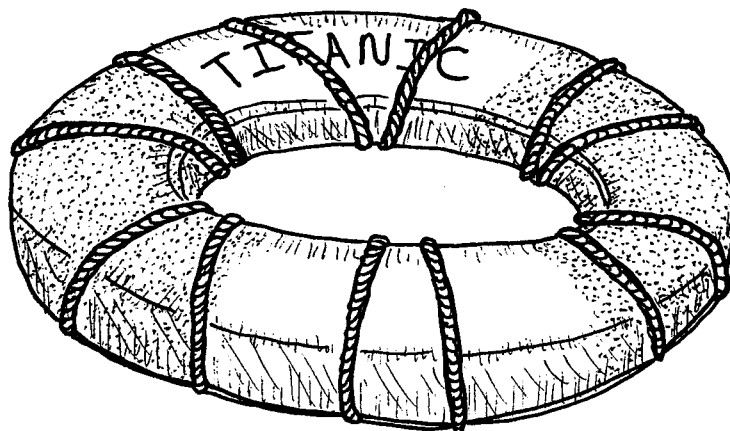
- Students share background knowledge of the *Titanic*.
- Students create a schematic map based on the class' background knowledge.
- Students learn interesting facts, myths and rumors about the *Titanic*.

Suggested Teaching Strategies

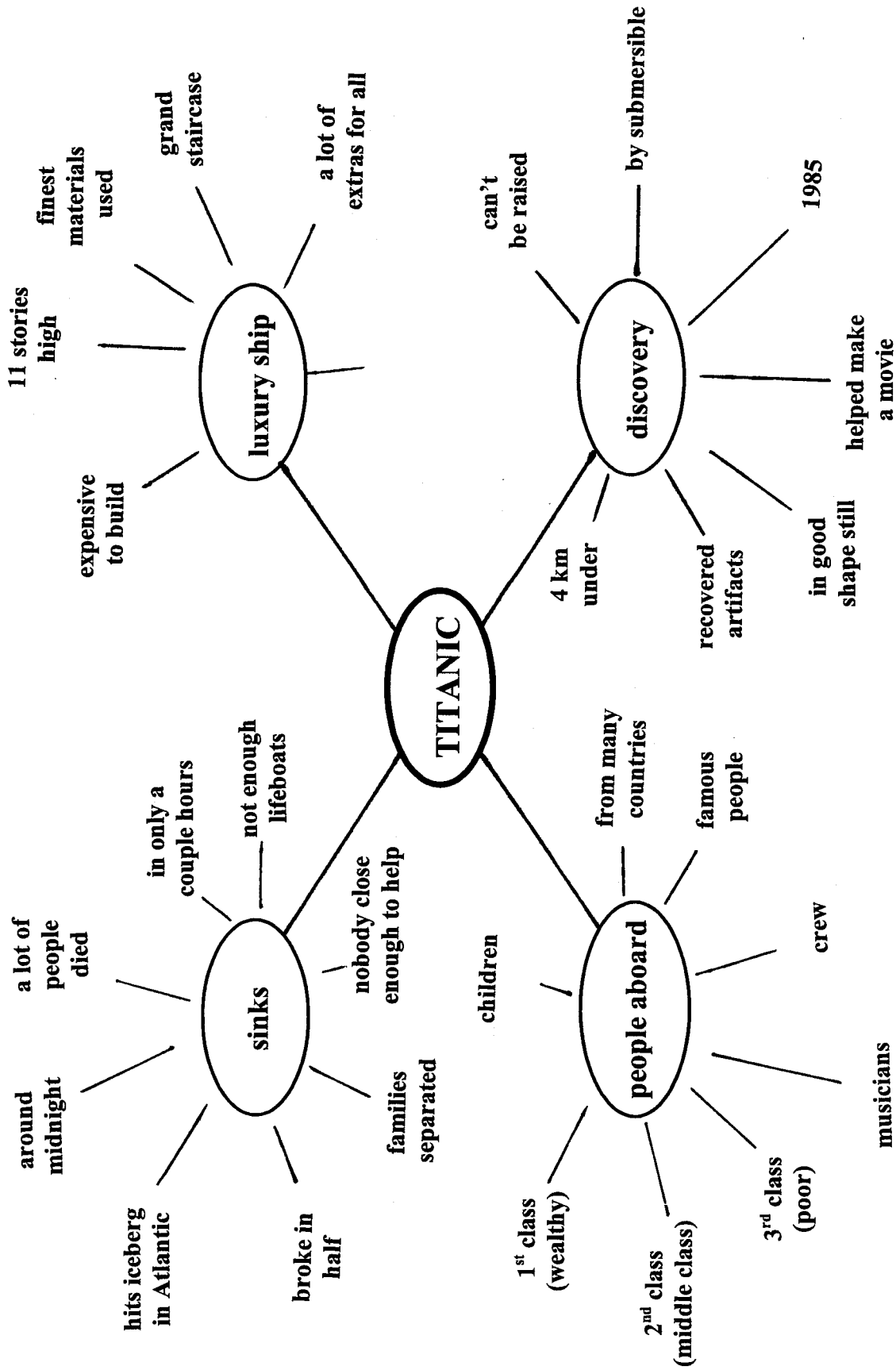
- Begin this unit by inviting the students to tell you everything they know about the ship, *Titanic*. (See note below.) As students take turns sharing their background knowledge, write their answers in list form on the board or overhead projector. (Simplify student answers into short phrases before listing them.)
- When the students have finished sharing their knowledge on the *Titanic*, create a schematic map (concept web) to organize the information into categories. (See example.) This activity may be done as a class, in small groups or individually, depending on the students' previous mapping experience and ability levels.
- One way to help the students organize the information before putting it on paper, is to write each answer on a large paper strip (or index card if students are completing this in smaller groups). Then, using the board, floor or other large, flat area, place the cards or strips into categories. Next, give each category a name. Lastly, copy the map onto paper.
- Finally, share interesting facts about the *Titanic* from the page "**Did You Know?**" This activity will not only demonstrate how much more there is to learn about the *Titanic*, but also create interest in the lessons to come.

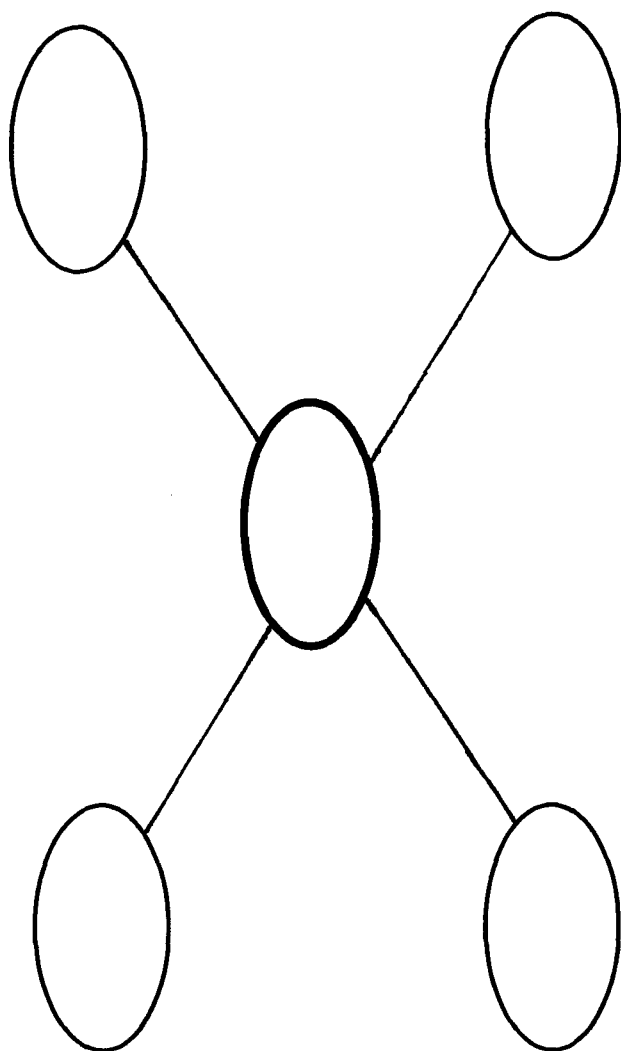
Note

Since most, if not all, students are already aware of the end result - the sinking of the ship - it's not realistic to create a "mystery"-type format. Instead, openly discuss the end result from the very beginning of this unit, and use it as a stimulus to motivate the students to find out why it happened and who it affected.



SAMPLE





DID YOU KNOW?

Interesting Facts, Myths and Rumors about the *Titanic*

1. **Passengers' dogs were allowed to travel aboard the *Titanic*. A crewman was assigned to oversee the dog kennel on board, and ensure each one had a daily walk. When the ship began to sink, a passenger released the dogs from their cages. Only two dogs survived.**
2. **Another ship, the *Californian*, was only about 15 km away from the *Titanic* during the entire tragedy. Unbelievably, the *Titanic*'s crew could even see the *Californian* in the distance, but were unable to contact the other ship despite their repeated attempts.**
3. **Fourteen years before the *Titanic* sank, Morgan Robertson wrote a book entitled Futility. It was about a magnificent ship that was bigger than any other ever built, and many claimed it to be unsinkable. In the book, the ship hit an iceberg in the North Atlantic and sank on a cold April night. Many rich and famous people drowned because there were not enough lifeboats for everyone aboard. The ship in this book was called the *Titan*.**
4. **J.P. Morgan, the ship's owner, canceled his trip on the *Titanic* just days before the maiden voyage.**
5. **To this day, no one knows what happened to the *Titanic*'s lifeboats that were used by the survivors. After the survivors deserted them, the lifeboats were taken to New York City where they floated by the docks for awhile. Then, they just disappeared.**
6. **Many believe that the *Titanic* was doomed before it even touched the water because of the number assigned to it, 390904, which reads "NO POPE" when seen in a mirror. The rumor is that the number was purposely assigned to the *Titanic* by Ulster Protestants who built the ship, and that "divine retribution" was inevitable.**
7. **After having spent over forty years at sea, Captain Smith was planning to retire after the *Titanic*'s maiden voyage. In 1907 (five years before the *Titanic*'s maiden voyage), he stated that all his years at sea had been "uneventful"- having never seen nor been involved in any type of wreck.**
8. **In order to be allowed on a lifeboat, a male passenger disguised himself as a female by wrapping a woman's shawl around his head. He indeed succeeded in the charade and survived the disaster.**
9. **The price of a first class ticket on the *Titanic* was \$4,350. A second class ticket was priced at \$1,750. Passengers in third class only paid \$30 for a ticket.**
10. **The wealthiest passenger aboard the *Titanic* was Colonel John Jacob Astor. His fortune was estimated at 100 million dollars in 1912 - which would be equivalent to about 1.5 billion now. He did not survive.**
11. ***R.M.S. Titanic* was the ship's official name. R.M.S. stood for Royal Mail Steamship. British ships were given the R.M.S. designation because they were commissioned by the Queen of England and carried mail for Her Majesty's postal authorities.**

LESSON #2 - THE *R.M.S. TITANIC*

Student Objectives and Activities

- Students learn about the history and creation of the famous *Titanic*.
- Students analyze and discuss design plans of the *Titanic*.
- Students solve math problems relating to the *Titanic*.

Suggested Teaching Strategies

- Begin by taking the students back to the Industrial Revolution at the turn of the century when:
 - 1) Alexander Graham Bell invented the telephone (1876)
 - 2) Marconi wireless radio was invented (1895)
 - 3) Henry Ford built the first car (1903)
 - 4) Wright Brothers took their first successful airplane flight (1903)
- Explain to the students that these and other inventions created a great excitement and a very real belief that wealth and success were indeed available for all. In the early 1900's, rumors of free land and resources in the "new world" caused millions of the European working class to sell their homes and belongings for a better life in America. It was also very appealing to only have to travel six to seven days on a steamship, versus six to seven weeks like so many Europeans had done during the 1800's.
- Next, share the information found on the handout, "**The *R.M.S. Titanic***", with the class.
- Analyze and discuss the plans of the ship using "**Sketch of *Titanic***". With a key, you may choose to have the students identify parts of the ship with various colours. Note that third class (steerage) accommodations made up less than one-tenth of the space reserved for first and second class accommodations - even though there were more passengers in steerage than in the other two classes combined!
- Lastly, distribute the "***Titanic Math Problems***" for students to complete in class or as a homework assignment. (If it will be done as homework, make sure the students are capable of finishing all the problems independently.)

Answers:

- | | |
|----------------------|------------------|
| 1. Answers will vary | 6. \$65,250 |
| 2. 1400 | 7. \$112,500 |
| 3. \$26,100 | 8. 20% |
| 4. 870 | 9. 9 days |
| 5. 46.25 km/hr | 10. 1,178 people |
| Bonus: 5.5 meters | |

*****Note*****

Reprints of the original *Titanic* plans are available from New Steamship Consultants. The plans are printed on two 11" x 17" pieces of cardstock and cost \$5.00, plus shipping. More information is available at their website: www.oceanliner.com/titanic.htm.

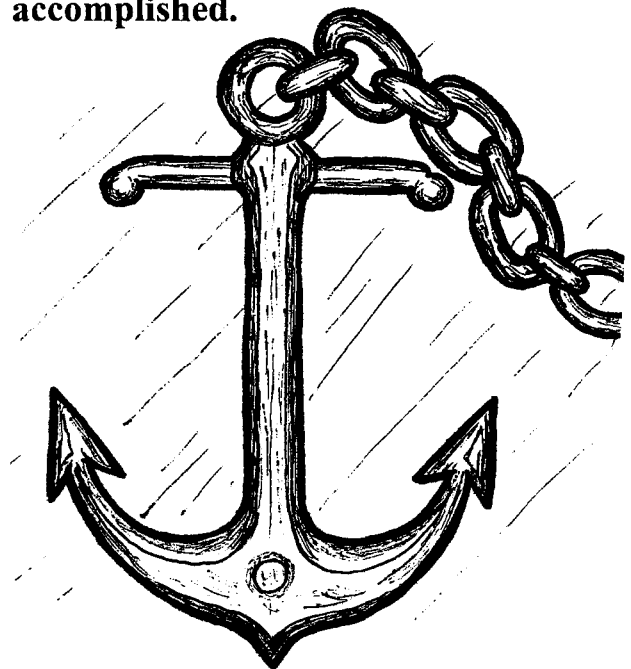
THE R.M.S. TITANIC

In 1907, J. Bruce Ismay (President and Managing Director of White Star Lines) devised a plan that would help his company capitalize on the Transatlantic passenger market. His plan was to build three ships that would be incomparable to all other ships in size, luxury and speed. The "sister" ships were to be called *Olympic*, *Titanic*, and *Gigantic*. Although they would resemble each other, the *Titanic* would be the grandest of the three ships. The title *Titanic* was chosen to reflect the enormous size of the ship. (The root word "titan" comes from Greek mythology and means "giant".) The *Titanic* was indeed intended to be a giant among ships by outdoing them in not only size, but also luxury and speed.

Construction began on the *Titanic* on March 31, 1909 in Belfast, Ireland. Two years later, on the same exact day, the hull (or frame) of the *Titanic* was launched into the water before a cheering crowd of 100,000 people. Even though it was the largest man-made object ever moved, it only took 62 seconds to launch the 24,000 tonne hull into the water. Then, the work inside the *Titanic* began.

It took almost three years of hard work, but on March 31, 1912 the *Titanic* was completed. The 15,000 people who built the *Titanic* could be proud of their breathtaking creation. They had broken records in

workmanship and quality. The *Titanic* was massive - measuring as high as an eleven story building and as long as four city blocks. If turned upright, the *Titanic* would have been taller than the tallest building in 1912, the Empire State Building. The four funnels on the top of the ship were so big that two trains could fit inside each of them. The anchor of the *Titanic* had a mass of 14,000 kilograms, and needed 20 horses to pull it. Each chain link attached to the anchor had a mass of 80 kilograms. It was large enough to transport 3,547 people. Maximum speed could reach almost 25 knots with the 55,000 horse power engines. The company's size and speed goals for the *Titanic* had been accomplished.

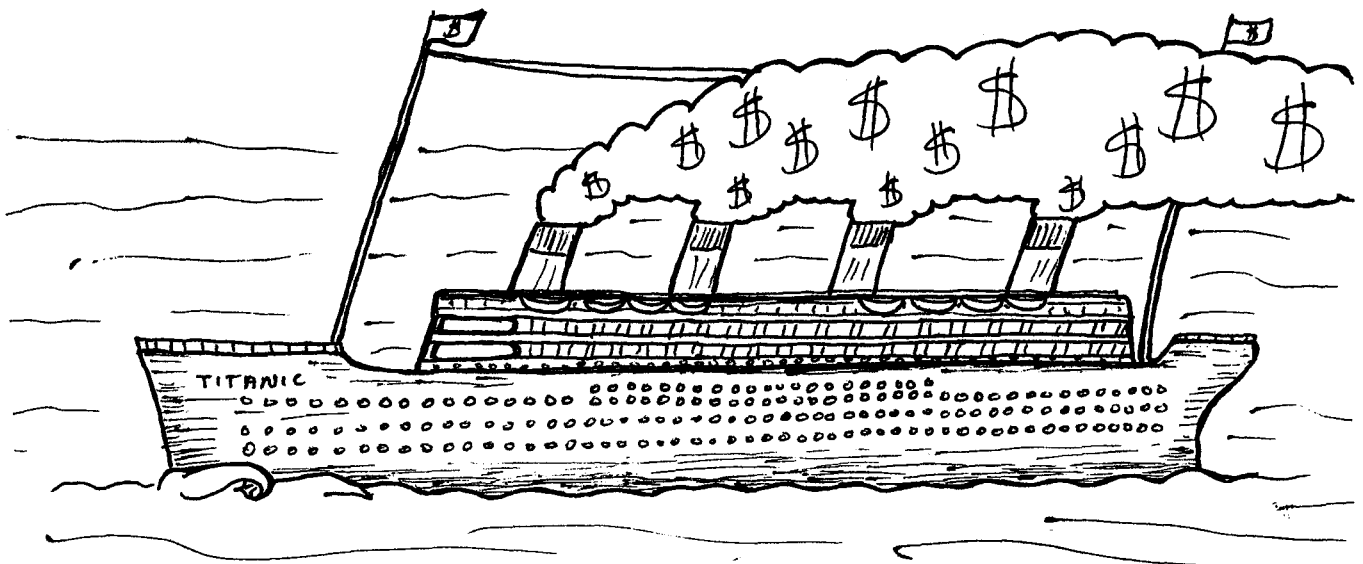


Inside, the *Titanic* had been outfitted with many amenities. Its nine decks had a gymnasium with squash & racquetball courts, Turkish baths (saunas), library, barber shop, bakery,

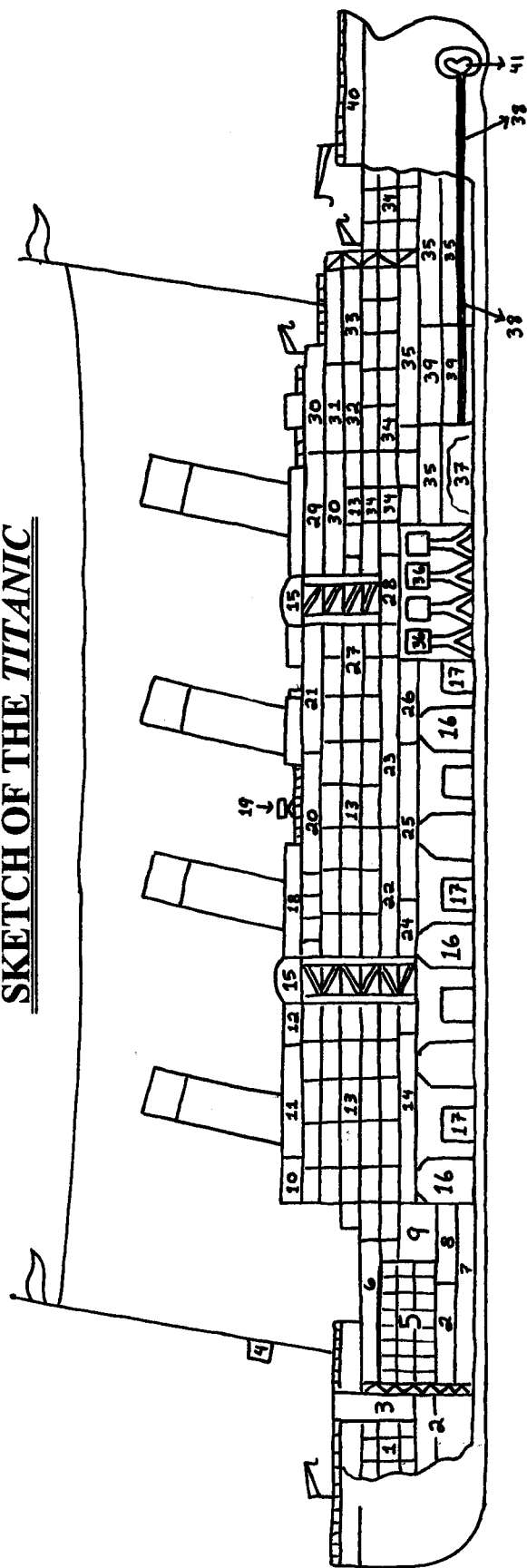
private restaurants, small hospital, and a darkroom for amateur photographers. Besides outdoing the normal standards for oceanliners, the *Titanic* had many "firsts" as well. It was the first ship to have a heated swimming pool. Previously, only first class passengers had the luxury of using elevators, until the *Titanic* included an elevator for second class passengers as well. The Turkish Bath was overseen by the first masseuse ever employed by a ship. In addition, the *Titanic* went above and beyond pampering just the first class passengers. Second class passengers were treated as first class passengers would have been on other oceanliners. Even third class passengers - who were mostly immigrants leaving all they had known for a new life in America - had accommodations better than most of

their homes they had left behind. The third class "commons" room even had a piano - a major luxury for the time.

The White Star Lines had accomplished their goals in not only size and speed, but luxury as well. From the fine china and stained glass to the plush carpet and woodwork, the company spared no expense in making the *Titanic* the most luxurious oceanliner ever. It's no wonder over 300 of the wealthiest people in the world bought first class tickets for the maiden voyage. It is also understandable why a ship of this caliber was given nicknames such as: "The Millionaires' Special", "The Wonder Ship", "The Unsinkable Ship", "The Last Word in Luxury", "Floating Palace" or "Floating City", and "Ship of Dreams".



SKETCH OF THE *TITANIC*



- | | | |
|--------------------------------------|--|--|
| 1. Crew's Quarters | 15. First Class Staircase | 29. 1 st Class Smoking Room |
| 2. Cargo Holds | 16. Coal Bunker | 30. Restaurant |
| 3. Hatchway | 17. Boiler | 31. 2 nd Class Smoking Room |
| 4. Crews Nest | 18. Gym | 32. Library |
| 5. Third Class Berths | 19. Compass | 33. 2 nd Class Dining Room |
| 6. Third Class Open Space | 20. Writing Room | 34. 2 nd Class Staterooms |
| 7. Fireman's Passage | 21. Lounge | 35. Refrigerated Cargo |
| 8. Mail Room | 22. 1 st Class Reception Room | 36. Reciprocating Engines |
| 9. Squash Court | 23. 1 st Class Dining Room | 37. Turbine Engine |
| 10. Bridge | 24. Turkish Bath | 38. Propeller Shaft Tunnel |
| 11. Officer's Quarters | 25. 3 rd Class Dining Room | 39. Fresh Water Tanks |
| 12. Marconi Room | 26. 3 rd Class kitchen | 40. 3 rd Class Smoking Room |
| 13. 1 st Class Staterooms | 27. Maids and Valets Dining Room | 41. Propellor |
| 14. Swimming Pool | 28. Kitchen / Galley | |

TITANIC MATH PROBLEMS

Name: _____

Instructions: Show your work and put your answer in the box provided.

Note: 1 knot = 1.85 kilometers/hour \$1.00 in 1912 = \$15.00 in 2000

1. The *Titanic* was completed in 1912. How many years ago was this?

2. When the *Titanic* was launched, it took 21,000 kilograms of grease, oil, and soap to help slide it into the water. If a wheelbarrow can hold 15 kilograms, how many wheelbarrow loads of grease, oil and soap were needed?

3. The price of a single first class ticket was \$4350. How much would it cost for a family of six to travel first class aboard the *Titanic*?

4. How many people could travel to America in steerage (third class) for the price of the family of six in #3? (A third class ticket cost \$30)

5. The *Titanic* could reach nearly 25 knots at maximum speed. How fast could it travel in kilometers per hour?

6. The most expensive suite in first class was priced at \$4,350 in 1912. What would be the cost in the year 2000 for that same suite?

7. The total cost to build and equip the *Titanic* was approximately \$7,500,000 in 1912. In the year 2000, how much would it cost?

8. When looking at the *Titanic* in water, approximately 11 meters of the ship is underwater. If the ship is 55 meters high altogether, what percentage of the ship is underwater?

9. A total of 5,670 tonnes of coal was loaded aboard the *Titanic* for its seven day voyage. If the ship burned 630 tonnes per day, how many full days worth of coal were on board?

10. The *Titanic* was outfitted with a total of 20 lifeboats: 14 wooden, 4 collapsibles, and 2 wood cutters. The wooden lifeboats could hold 65 people each. The collapsibles held 47 people each. The wood cutters held 40 people each. If they were filled to capacity, how many people would fit into the 20 lifeboats?

Bonus The *Titanic* had three enormous propellers that averaged 6.5 meters across. If the two outside propellers were each approximately 7 meters across, how big was the middle propeller? (Show answer on back.)

LESSON #3 - PREPARATIONS FOR THE MAIDEN VOYAGE

Student Objectives and Activities

- Students estimate the amount of food stored in the ship for the maiden voyage.
- Students learn about the preparations during the week before the *Titanic*'s maiden voyage.
- Students create and translate messages in "Morse Code:" to help them better understand how the *Titanic* communicated with other ships during its voyage.

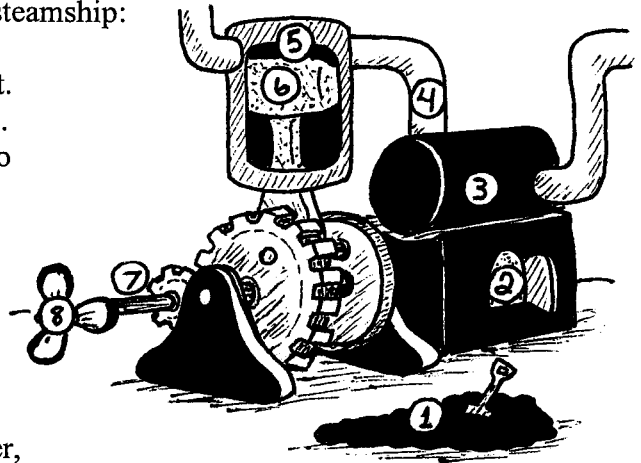
Suggested Teaching Strategies

- Begin this lesson by having the students guess how much of each food listed below they think the *Titanic* had stored to feed approximately 2,200 people during the 7 day maiden voyage. Hint: There was enough food for a small town to have eaten for several months. (You may choose to have the students submit their guesses in a jar and check them later for a prize, or simply have the students raise their hand and respond. If you choose the latter option, guide the students by stating "more" or "less" after each guess to speed up the process.)

Answers:

35,000 kgs of fresh meat	36,000 apples	3,000 kgs of butter
36,000 kgs of potatoes	40,000 fresh eggs	6000 liters of milk
1,750 liters of ice cream	7,000 heads of lettuce	5,000 kgs of sugar

- Then, as a class, read through "**The Week Before**". During the reading, take time out to discuss interesting points and complete related activities. (See examples below.)
- Locate Belfast, Ireland and Southampton, England on a map. Identify the bodies of water in the area (i.e. English Channel, Atlantic Ocean, etc.).
- Discuss the purpose of coal in powering a steamship:
 - 1) Stokers shovel coal into large furnaces.
 - 2) The coal fuels the fire which creates heat.
 - 3) The heat boils water in the ship's boilers.
 - 4) The boiling water expands as it turns into steam.
 - 5) The expansion of steam creates pressure in the cylinder.
 - 6) The pressure pushes a piston back and forth inside the cylinder.
 - 7) This piston's movement turns the attached crankshaft.
 - 8) The crankshaft is what turns the propeller, which powers the ship.



- Lastly, to help the students better understand how messages were sent over the wireless radio during the voyage, complete the handout "**Morse Code**".

THE WEEK BEFORE

Tuesday, April 2

The *Titanic* passes the required sea test and is given permission to sail by the Board of Trade. In the evening, it leaves Belfast, Ireland for the docks of Southampton, England.

Wednesday, April 3

Aboard, Senior Operator Jack Phillips and Junior Operator Harold Bride run tests on the Marconi wireless radio via Morse code. This type of radio is more powerful than any radio ever used on a ship - daytime range is 600 kms and nighttime range is 2,000 kms. The *Titanic* arrives in Southampton around midnight.

Thursday & Friday, April 4 - 5

Finishing touches on the interior are being made. Over 500 tonnes of supplies and cargo are being loaded on board.

Saturday, April 6

Hundreds of sailors seek to be recruited for *Titanic's* crew. Only the best are chosen. Cargo is still being loaded. Almost 6,000 tonnes of coal is loaded over a 24 hour period, leaving a black "dust" all over the decks. Decks are cleaned soon after the coal is loaded.

Sunday, April 7

Easter Sunday was observed as all preparations ceased for the day.

Monday, April 8

Food is loaded on board into storerooms and large refrigerators.

Tuesday, April 9

Inspections are conducted by Captain Clark, a Board of Trade surveyor, and *Titanic's* captain, Edward J. Smith. The crew sleeps on board to protect the cargo.

Wednesday, April 10

7:30 a.m. Captain Smith begins preparations for the day.

9:00 a.m. Although deemed unnecessary, a brief 30 minute lifeboat drill is conducted with the crew.

9:30 a.m. White Star Lines' trains carrying passengers for the maiden voyage begin to arrive.

10:00 a.m. Boarding begins - almost 1,000 passengers will board during the next two hours. First class passengers consisted of royalty, entrepreneurs, executives, and other people with extreme wealth. Second class passengers were a compilation of musicians, doctors, teachers, priests, and other middle class professionals. Third class passengers were mostly very poor immigrants who were destined for a new life in the USA.

MORSE CODE

Name:

The Marconi wireless radio was used to send telegraph messages through the air. Morse code was the system used to communicate over wireless radios. It was sets of dots, dashes, and spaces which represented the letters of the alphabet. To communicate over the wireless, an operator would tap out a message in Morse code that would instantaneously be sent through the air by electric current to the headset of another operator, who would then translate the message.

Directions: Use Morse code to translate messages #1-5. Then, create your own message in Morse code for #6.

1.

Translation: _____

2.

Translation: _____

3.

Translation: _____

4.

Translation: _____

5.

Translation: _____

6. Now, create your own message using Morse code.

Translation: _____

MORSE CODE

Name: _____

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1. 


Translation: _____

2. 


Translation: _____

3. 

Translation: _____

4. 

Translation: _____

5. 

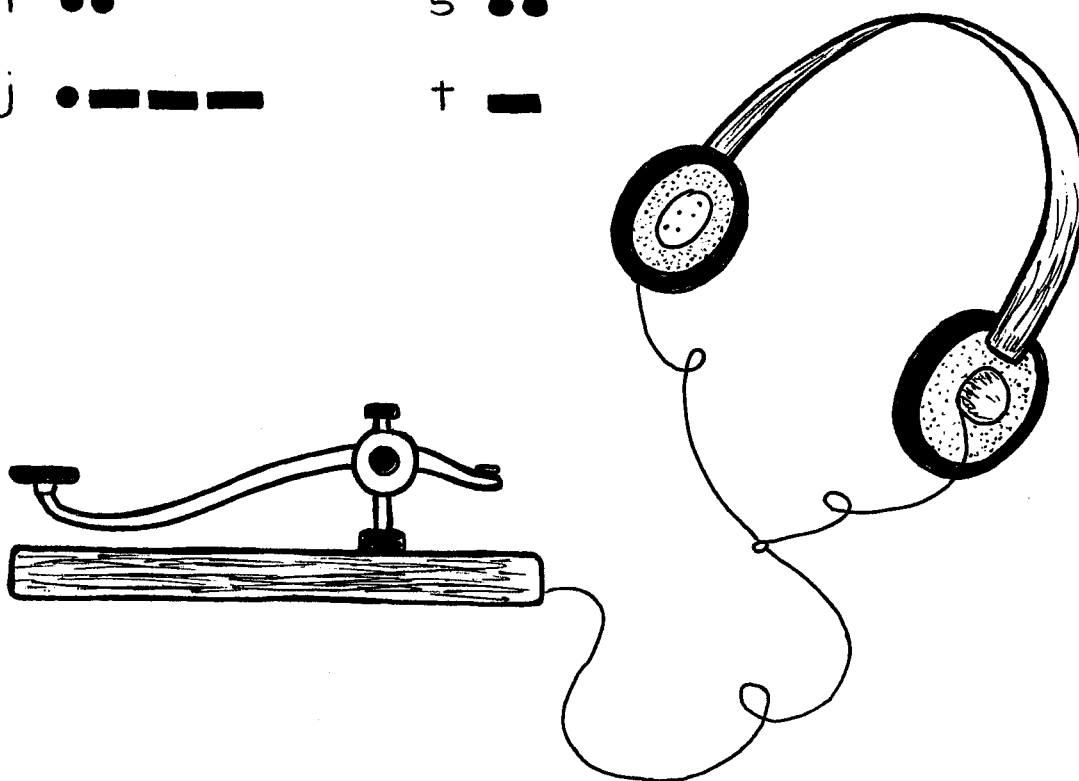
Translation: _____

6. Now, create your own message using Morse code.

Translation: _____

MORSE CODE

a	• —	k	— • —	u	• • —
b	— • • •	l	• — • •	v	• • • —
c	— • — •	m	— —	w	• — —
d	— • •	n	— •	x	— • • —
e	•	o	— — —	y	— • — —
f	• • — •	p	• — — •	z	— — • •
g	— — •	q	— — • —		
h	• • • •	r	• — •		
i	• •	s	• •		
j	• — — —	t	—		



LESSON #4 - THE MAIDEN VOYAGE

Student Objectives and Activities

- Students learn the events which occurred during the first five days of the voyage.
- Students map the route taken on *Titanic's* maiden voyage.
- Students perform related calculations to reinforce learning.
- Students write letters to loved ones as if they themselves were on the *Titanic*.

Suggested Teaching Strategies

- Begin this lesson by showing the students the names on the passenger list found in the back of A Night to Remember. (The website www.rmpic.co.uk/eduweb/sites/phind/ also has a passenger list.) Discuss the anticipation and excitement that the passengers must have felt - whether they were aboard for entertainment purposes, business, or traveling to a new life.
- Then, as a class, read through the events that occurred on "**The Maiden Voyage**". During the reading, trace the route the *Titanic* took on its maiden voyage on "**The *Titanic's* Route**". Also, take time out as you go along to discuss interesting points and perform related calculations. (See examples below.)
 - After leaving Southampton, England, the *Titanic* made two stops to pick up passengers. The first stop was in Cherbourg, France where 22 passengers got off the ship and 270 passengers got on the ship. The second stop was in Queenstown, Ireland where 7 passengers got off the ship and 120 passengers got on. If there were 1,866 passengers and crew who started the trip, what is the total number of people on board after the two stops? **Answer:** 2,227 people
 - Use the distances below to calculate the *Titanic's* average speed (in kilometers per hour) for each day. (Round to the nearest whole number.)

Noon Thursday to Noon Friday: 620 kms	Answer: 26 km/h
Noon Friday to Noon Saturday: 830 kms	Answer: 35 km/h
Noon Saturday to Noon Sunday: 872 kms	Answer: 36 km/h
- Lastly, have the students imagine they were on board the *Titanic* during this part of the voyage have each one write a letter to someone back home, sharing their experiences aboard the *Titanic* thus far. (Remember, the passengers do not know about the ice warnings, nor do they feel any threat of colliding with an iceberg. These letters should reflect passengers in good spirits, who are having the time of their lives.) The length and format of the letters will depend on letter-writing skills previously taught to the class.

Note

This lesson covers the time period on the ship prior to the collision. The next lesson (#5) will cover the collision.

THE MAIDEN VOYAGE

Southampton, England - Cherbourg, France - Queenstown, Ireland - New York, U.S.A.

Wednesday, April 10 (continued)

- 12:00 p.m. *Titanic* is underway on its maiden voyage with a total of 1,866 passengers and crew on board. As it leaves the dock, the waves created are so powerful that they cause the *New York*, another liner, to be suctioned toward the *Titanic*. The *Titanic* has to stop its engines in order to calm the water. The *New York* misses colliding with the *Titanic* by only 1 meter.
- 1:00 p.m. The *Titanic* resumes its voyage across the English Channel towards the port at Cherbourg, France.
- 6:00 p.m. The *Titanic* stops briefly in Cherbourg, France to pick up 270 new passengers. A total of 22 passengers get off there as well.
- 8:10 p.m. The *Titanic* leaves Cherbourg for its overnight trip around the Southern tip of England to Queenstown, Ireland for its second and last stop before heading across the Atlantic Ocean to New York.

Thursday, April 11

The passengers have spent their first day examining the ship. It is truly the most luxurious oceanliner ever built.

- 11:30 a.m. The *Titanic* arrives in Queenstown, Ireland. 120 new passengers (mostly immigrants) come aboard. Over 1,300 bags of mail are also loaded on to the *Titanic*. Seven passengers disembark here.
- 1:30 p.m. The *Titanic* leaves Queenstown harbor on its first transatlantic voyage for New York. The passengers enjoy the beautiful views of Ireland as the *Titanic* departs.



Friday, April 12

The passengers continue to enjoy the many extra amenities aboard the *Titanic*.

12:00 p.m. The *Titanic* has covered 620 kilometers in the last 24 hours. The ocean is calm and the weather is chilly, but clear.

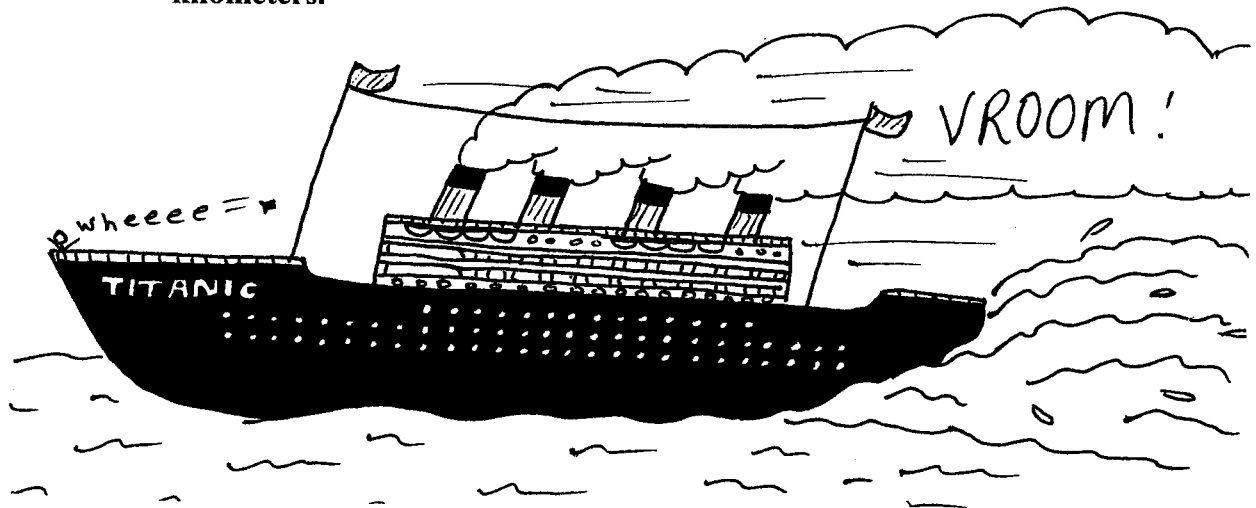
11:00 p.m. The wireless radio breaks down. Phillips and Bride work to repair it all night.

Saturday, April 13

5:00 a.m. Wireless radio is fixed. There are hundreds of messages coming in and waiting to be sent out. It seems almost all the passengers want their loved ones to know about their incredible adventure aboard the *Titanic*. So despite being up all night, Phillips and Bride must continue to work.

10:00 a.m. Captain Smith performs the daily inspection of the ship.

12:00 p.m. During the last 24 hours, the *Titanic* has picked up speed and covered a total of 830 kilometers.



Sunday, April 14

9:00 a.m. The steamship *Caronia* sends an ice warning. Shortly thereafter, the oceanliner *Noordam* sends the same warning of ice ahead.

10:30 a.m. Father Thomas Byles conducts mass, including a sermon about spiritual shipwrecks.

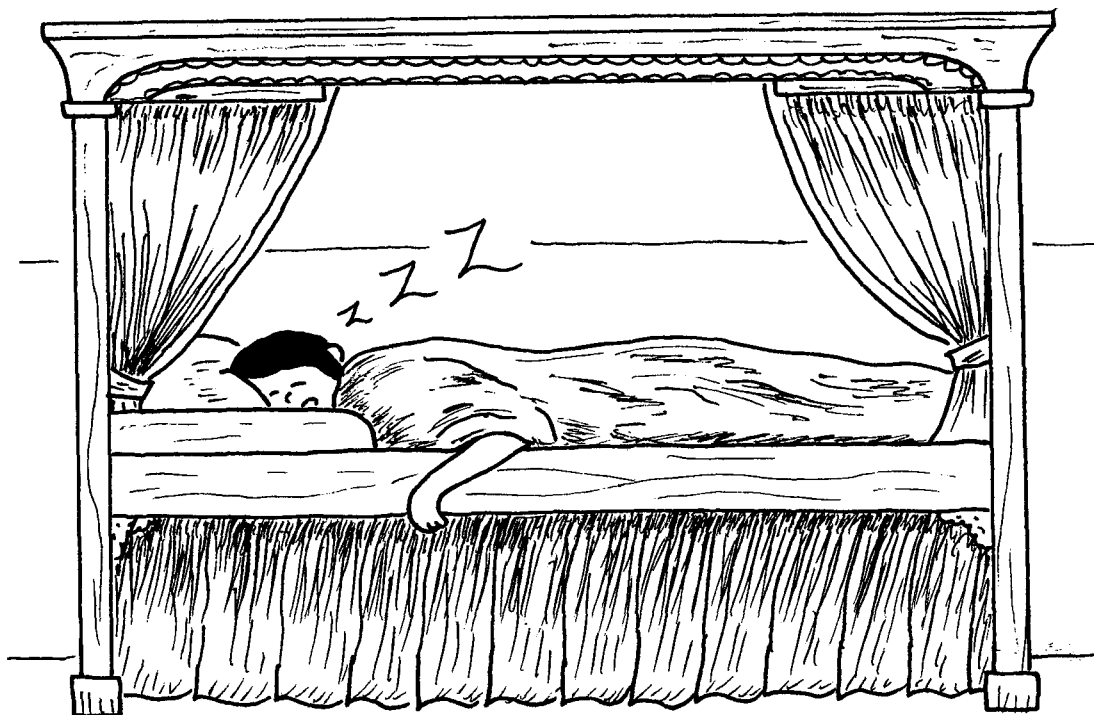
12:00 p.m. Despite the ice warnings, the *Titanic* continues to increase in speed. It has traveled 870 kilometers in the last 24 hours.

1:45 p.m. The ships *Baltic* and *Amerika* send messages warning of ice fields approximately 400 km ahead. Captain Smith informs J. Bruce Ismay.

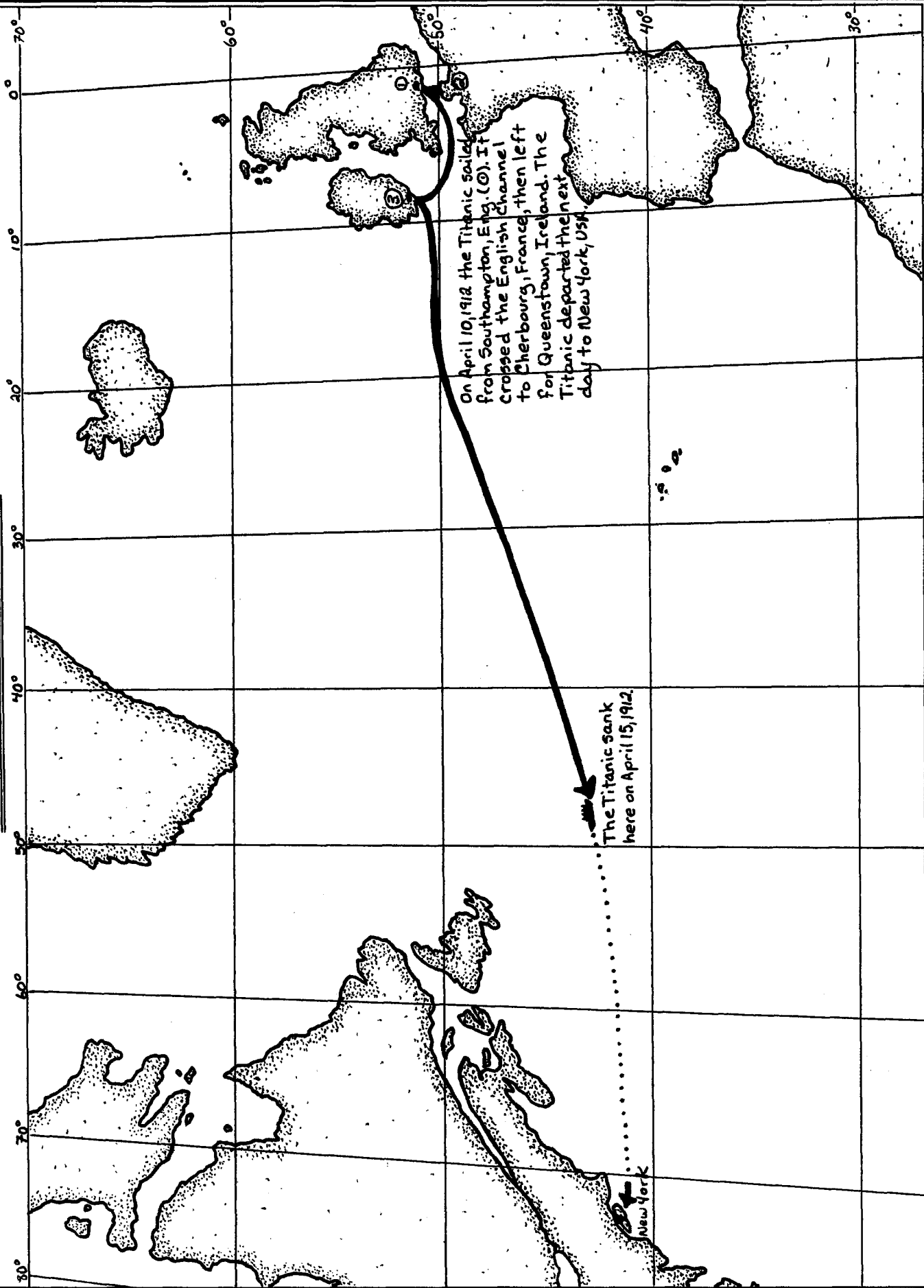
5:00 p.m. Due to the cold temperature outside, most of the passengers are enjoying inside activities.

6:00 p.m. Captain Smith heeds the ice warnings and changes the ship's course slightly southwest. However, the *Titanic* is still increasing in speed.

- 7:00 p.m. Outside temperature is +6 ° Celsius - chilly!
- 7:30 p.m. The wireless radio operators intercept several ice warnings intended for the liner *Californian*, indicating a huge ice field estimated at 100 km long directly ahead of the *Titanic*.
- 9:00 p.m. Before retiring for the night, Captain Smith visits the deck and tells the lookouts, Frederick Fleet and Reginald Lee, to keep a sharp eye out for ice and to awake him if there are any doubts.
- 9:40 p.m. The liner *Mesaba*, sends messages of ice warnings all around the area where *Titanic* is traveling. Phillips and Bride are preoccupied with the overwhelming number of passenger messages needing to be sent out, as well as incoming messages needing to be received for the passengers. As a result, the message is not forwarded to the bridge.
- 10:00 p.m. Fleet and Lee climb up into the crow's nest to look for ice. Temperature is 0 ° Celsius outside. The water is down to -1 ° Celsius.
- 10:30 p.m. The ship *Rappahannock*, sends an ice warning.
- 10:55 p.m. Approximately 15 km north of the *Titanic*, the *Californian* has stopped and is surrounded by ice. The *Californian* tries to warn the *Titanic*, interrupting Phillips while he is sending out a message. Phillips is irritated with the interruption and responds rudely to the *Californian*. Shortly thereafter, the *Californian's* operator shuts down his radio for the night and retires to bed. Meanwhile, the *Titanic* is traveling faster than ever - almost 23 knots.
- 11:30 p.m. The *Titanic* has sailed into a strange haze - creating an eery feeling. The water is very calm, and it is very quiet -almost too much so. Fleet and Lee strain to see what is ahead. Meanwhile, most of the passengers have retired to their rooms for the night - many are fast asleep after a full day of activity.



THE TITANIC'S ROUTE



LESSON #5 - THE COLLISION & SINKING OF THE *TITANIC*

Student Objectives and Activities

- Students learn the order of events involved with the *Titanic*'s sinking.
- Students perform related calculations to reinforce learning.
- Students define related vocabulary words.
- Students conduct an experiment on buoyancy.

Suggested Teaching Strategies

- Before starting this lesson, review the handout in Lesson #4, "**The Maiden Voyage**", by asking follow-up questions, such as:
 - Why did the *New York* almost collide with the *Titanic*?
 - Where did the *Titanic* stop before heading out to sea?
 - Who was Smith? Who were Phillip and Bride? Who were Fleet and Lee?
- Similar to the last lesson, have the class read the handout, "**The Final Hours**", together. Take time out to discuss events and perform related activities, such as:
 - Review latitude and longitude, if necessary. Then, locate where the *Titanic* struck the iceberg (41 degrees North, 50 degrees West) on a map or globe.
 - Refer to the vocabulary list in Optional Lesson #2 (Part II) for definitions of unknown terms, like astern, starboard, bow, forward, stern, and hull.
 - How many km did the *Titanic* have left to travel on its journey? Answer: 720 km
 - What percentage of the passengers and crew survived if 1,522 out of 2,227 died?
Answer: 32% (Converted into fraction form, approximately 1/3 survived the disaster.)
- Lastly, to help the students better understand why the *Titanic* sank, complete the activity, "**Buoyancy Experiment**". (If done together as a class, you may copy the handout onto an overhead for everyone to see. Then, answer the questions on a separate piece of paper.)
There are other options for completing the buoyancy experiment:
 1. Small groups - Make sure to provide materials for each group.
 2. Home activity - Give students the opportunity to share their learning with their parent(s), as well as allow the parent(s) the opportunity to be involved in their child's education. You will need to give parents advance notice of the due date.

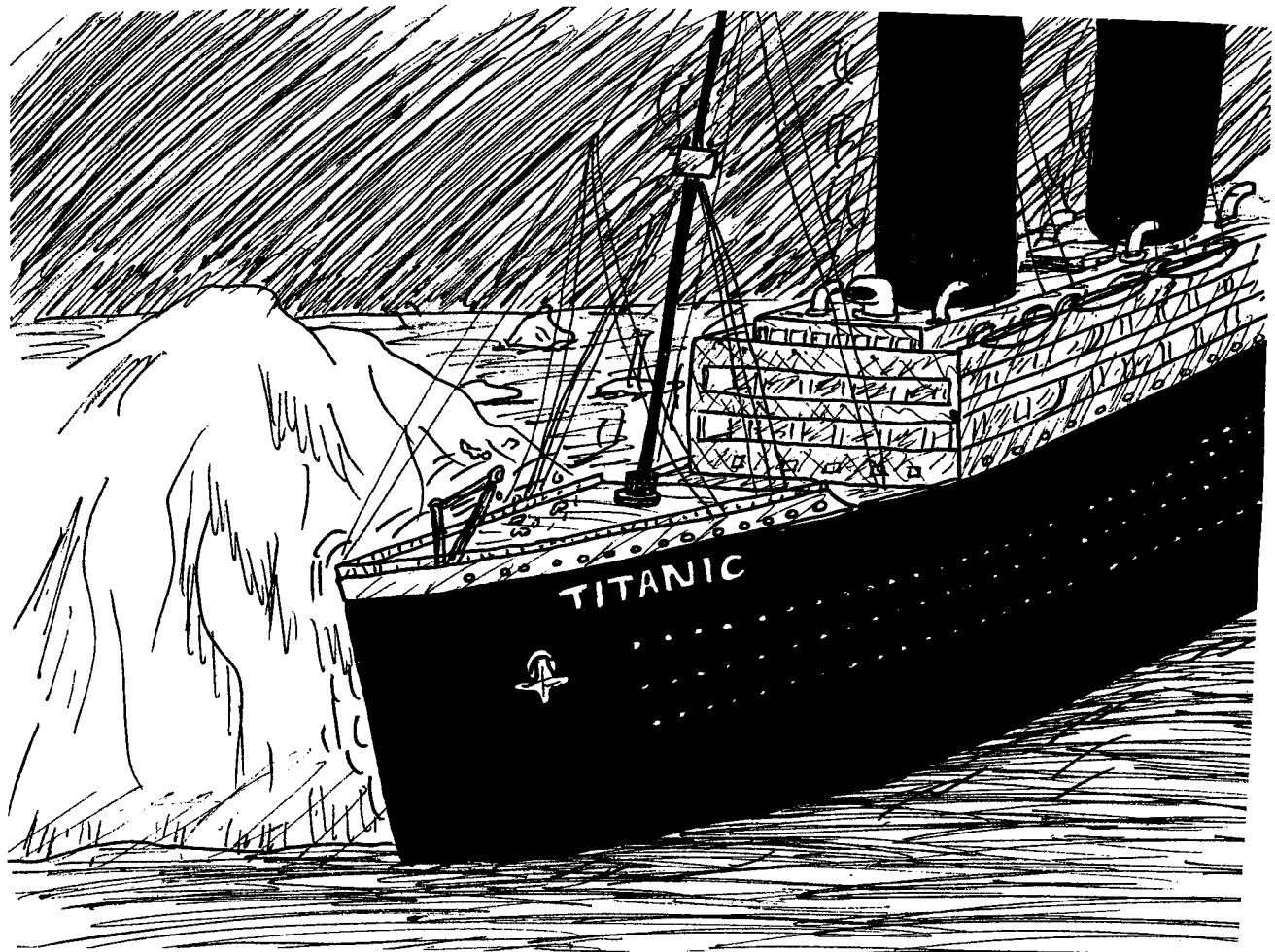
Answers to the experiment questions:

1. Buoyancy is the ability to float.
2. There was not enough water weight in just one section to force the icecube tray to sink.
3. The more sections that filled with water, the more the icecube tray tilted downward into the water.
4. Answers will vary.
5. As more water filled the tray, the weight overwhelmed the tray and pulled it under.
6. This experiment demonstrates how the watertight compartments filled up on the *Titanic* until the water weight overwhelmed it and pulled it under the water.

THE FINAL HOURS

Sunday, April 14 (continued)

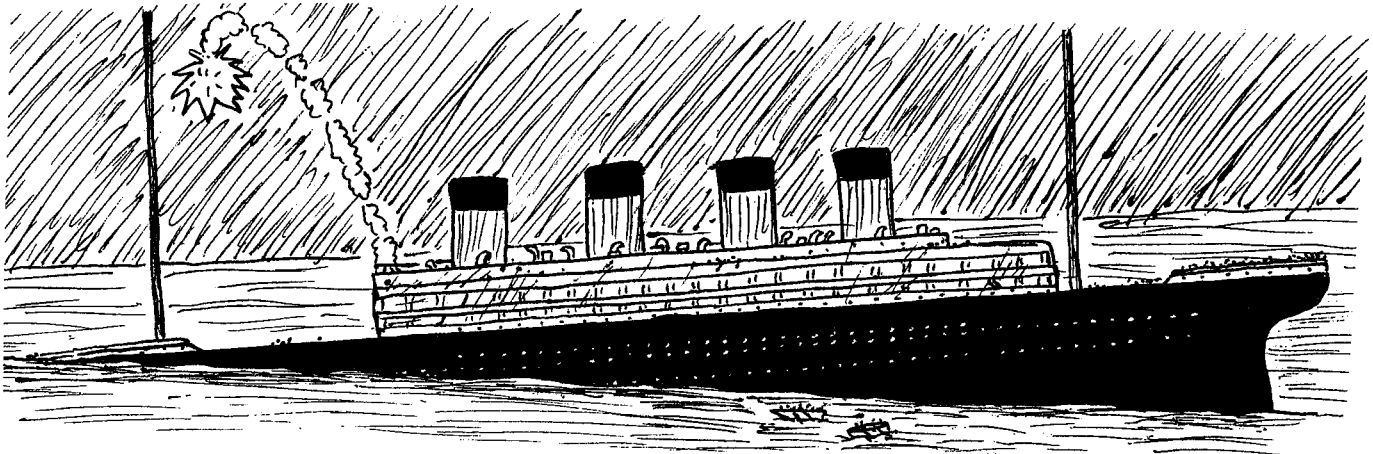
11:40 p.m. Fleet spots a large iceberg dead ahead and alerts the bridge by ringing the bell in the crow's nest three times then shouting the warning into the telephone directly to the bridge. Instantly, First Officer William Murdoch issues orders: hard starboard, full speed astern, close the water-tight doors, and alert the captain. The *Titanic* begins to veer away from the iceberg, and it appears as though it will miss it. There is only a slight lurch as the *Titanic* passes by the iceberg. A great sense of relief is felt as the iceberg disappears behind the ship - less than a minute after first being sighted.



11:55 p.m. Captain Smith and Thomas Andrews go below deck to inspect what everyone believes to be only minor damage. They find that the iceberg has cut a 90-meter gash into the right side of the ship, causing approximately 4 meters of water to have already poured into the front five watertight compartments. The electric pumps cannot flush the water back out as fast as it is pouring in. They realize it is only a matter of time before the water will spread into the other compartments causing the ship to sink. Immediately, Captain Smith heads for the bridge to pinpoint the *Titanic's* position.

Monday, April 15

- 12:05 a.m.** Thomas Andrews informs Captain Smith that he believes the ship will only stay afloat for approximately two hours. The Captain issues the orders to call the passengers on deck and uncover the lifeboats. Under the direction of Bandmaster Wallace Hartley, the seven-musician band begins to play lively ragtime tunes on A-Deck.
- 12:10 a.m.** As ordered by Captain Smith, Phillips wires out a distress signal: CQD... MGY.... (MGY are *Titanic's* call letters, and CQD is the signal for help.) Phillips includes the *Titanic's* position: 41 degrees North, 50 degrees West.
- 12:25 a.m.** Captain Smith gives the order to start loading the lifeboats with women and children first. Meanwhile, many of the crew are rushing from cabin to cabin passing out lifebelts and sending passengers up to the deck. Many passengers refuse to believe the "unsinkable" ship is sinking. They do not want to go out in the cold night air in a small lifeboat for no reason. (Most of them are not aware that there is only enough room on the lifeboats for 1,178 people out of 2,227 people on board - 1,049 seats short.)
- 12:30 a.m.** Many ships in the area are signaling by radio that they are on their way. The *Carpathia* is the closest ship to respond (90 km away), but it will take them approximately four hours to reach the *Titanic*. The *Californian* is only about 15 km away and within sight, yet they do not respond. (The operator shut his radio off and retired to bed around 11:00 p.m. - shortly after warning the *Titanic* of the ice field.)
- 12:40 a.m.** Bride suggests trying a new method of communication in an attempt to reach the *Californian*. A couple of crew members go on deck and use the Morse lamp to send SOS signals into the night sky. (This is the first time in history that the new distress signal has been used.)
- 12:45 a.m.** Captain Smith orders Quartermaster George Rowe to try a third way of communication by firing one white flare (known as a distress signal) into the sky every five minutes until the *Californian* responds, or until eight flares are used. Meanwhile, the first lifeboat is lowered with only 28 people aboard - leaving 37 seats empty. The water has risen to E-deck already.
- 1:15 a.m.** Seven lifeboats have been lowered - none filled to capacity. The *Californian* still does not respond.



- 1:30 a.m.** Two more life boats have been lowered. People are starting to panic now that *Titanic* is clearly sinking. 5th Officer Harold Lowe fires warning shots into the air to control anymore passengers from loading an already full lifeboat. Phillips still tries desperately to contact help over the radio.
- 1:40 a.m.** Only the collapsible lifeboats remain to be loaded - one of which Ismay loads. Water is now on the forward deck. All the remaining passengers move to the stern. The last distress rocket is fired.
- 2:00 a.m.** The water has risen nearly to the Promenade Deck. The band begins to play the hymn "Nearer, My God, to Thee!" There are only 47 lifeboat seats left and over 1,500 passengers still on board.
- 2:05 a.m.** Captain Smith relieves the crew of their duties stating, "You've done your duty. Now it's every man for himself." The last lifeboat is launched.
- 2:10 a.m.** The *Titanic's* bow goes under creating a wave that overturns the last launched lifeboat. Jack Thayer (age 17) helps Operator Bride up on to the overturned lifeboat where approximately 25 others are huddled together. The passengers in the lifeboats watch as the stern is lifted higher and higher Out of the water. Meanwhile, Father Thomas Byles prays with passengers and listens to confessions on the Boat Deck. Still, the band plays on.
- 2:15 a.m.** The bow begins to plunge deeper into the sea as objects inside the *Titanic* crash against each other. Loud cries permeate the air as passengers and crew jump off the ship into the freezing water.
- 2:18 a.m.** The lights blink and then go out, leaving everyone in darkness. The hull breaks into two parts. The bow sinks. The stern portion settles back into the water temporarily.
- 2:20 a.m.** The remainder of the *Titanic* disappears into the sea - two hours and forty minutes from the time of the collision and only 2320 km into the 3040 km maiden voyage.

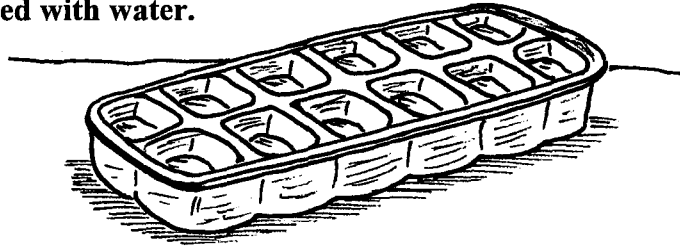


BUOYANCY EXPERIMENT

Name: _____

Steps:

1. Read through all of the steps before beginning the experiment.
2. Gather your materials: plastic icecube tray, sink, tub or large container (bigger than the icecube tray), water
3. Fill the container with at least 20 centimeters of water.
4. Place the icecube tray on top of the water, with the open sections facing upward. The tray is buoyant (floating) on the water, similar to how a ship floats on water.
5. Slowly, tip one corner of the tray downward into the water. Let go of the tray as soon as water begins to enter into one of the sections.
6. Observe how the water fills one section of the tray, but the tray stays buoyant.
7. Gradually, the water will spread into the other sections. As it does, pay close attention to the position of the icecube tray in the water. Do not touch the tray until all sections are filled with water.



Questions:

1. Define buoyancy. _____
2. Why did the icecube tray stay buoyant when the water filled the first section?

3. Describe how the position of the icecube tray changed as water filled more sections?

4. How many sections filled with water before the icecube tray sank? _____
5. What caused the icecube tray to sink? _____

6. What did this experiment teach you about how the *Titanic* sank?

LESSON #6 - THE AFTERMATH

Student Objectives and Activities

- Students learn how and when the *Titanic* survivors are rescued.
- Students create a double-bar graph representing the victims vs. survivors from each class.
- Students reflect on the disaster and hypothesize “if only” certain actions were taken, would the outcome have differed.

Suggested Teaching Strategies

- Begin this lesson by reviewing the events at the end of Lesson #5. Ask the students how they would feel if they were one of the survivors on a lifeboat watching the *Titanic* sink. Discuss such feelings as relief, sadness and fear, as well as physical feelings of shock and hypothermia.
- As a class, read through the summary of events involved in the rescue on the handout, “**The Rescue**”. Stop and discuss important points and make connections with previous information. Reinforce the outcomes of the individuals who have reoccurred throughout the lessons (i.e. Ismay, Bride, etc.). Information about the outcomes of all reoccurring people is included in Part II.
- Next, to help the students better understand the number of victims and their class distinctions, provide the students with the information on the handout, “***Titanic* Victims vs. Survivors**”. Have them create a double-bar graph and answer the questions. (See example.)
- The chart is calculated based upon the total number of passengers on the ship’s list (2,227) minus the total number of survivors (705) reported by the *Carpathia*. Hence, there were 1,522 deaths.

Answers:

1. The crew had the most people aboard. 2nd Class had the least people aboard.
 2. Crew, 3rd Class, 2nd Class, 1st Class
 3. Crew, 3rd Class, 2nd Class, 1st Class
 4. The higher class distinction meant a higher chance of survival.
 5. More 3rd class passengers died because:
 - they were on lower decks and couldn’t get up to the boat decks.
 - 1st and 2nd class passengers felt they were a priority.
 - Accept other reasonable answers.
 6. There were a lot of crew deaths because:
 - they felt it was their duty to assist the passengers through the ordeal.
 - they were still performing their duties.
 - Accept other reasonable answers.
 7. 1,522 died and 705 survived.
- Finally, as a class reflect upon the many mishaps that resulted in the sinking of the *Titanic*. Discuss the “**If Only...**” list. Then, share your own “if only...”

THE RESCUE

Monday, April 15 (continued)

- 3:25 a.m.** For over an hour, the survivors wait in the darkness listening to what Jack Thayer called "a long, continuous wailing chant". Even Second Officer Herbert Lightoller (who had jumped into the water as the *Titanic* sank and swam to the overturned lifeboat) could hear the "heartrending, never-to-be-forgotten sounds". Still, the lifeboats would not retrieve others from the water for fear of being swamped. Many who survived the sinking were now freezing to death in the - 2 degree water. Others, like Operator Phillips (who had clung to the same overturned lifeboat as Bride and Lightoller), had already frozen to death.
- 3:30 a.m.** The survivors can see the *Carpathia* in the distance.
- 4:10 a.m.** The first lifeboat is picked up by the *Carpathia*. Passengers aboard the *Carpathia* are very generous and helpful to the *Titanic* survivors.
- 5:30 a.m.** The *Frankfort* sends a message to the *Californian* of the sinking. The *Californian* immediately heads in that direction to offer assistance.
- 6:00 a.m.** The *Carpathia* begins wiring messages of the rescue. Operator Bride is carried into the wireless room to help wire the survivors' names, even though his feet are crushed and he is suffering from severe frostbite. Bruce Ismay sends the following message to the New York offices of the White Star Lines: "Deeply regret advise you *Titanic* sank this morning after collision with iceberg, resulting in serious loss of life. Full particulars later."
- 8:30 a.m.** The *Californian* reaches the disaster area just as the *Carpathia* picks up the last lifeboat. Lightoller, having again insisted on taking care of everyone else first, is the last survivor to board the *Carpathia*.
- 8:50 a.m.** *Carpathia* leaves the disaster area where other ships are still searching for survivors in the water, and heads for New York with 705 survivors aboard.

Thursday, April 18

- 9:30 p.m.** The *Carpathia* arrives in New York. Over 10,000 people are awaiting its arrival. All are hoping their loved ones have survived the disaster. The media is in full force trying to get the details of the disaster.

Sunday, April 21 - Friday, April 26

A ship chartered by the White Star Company retrieves 306 bodies floating in the water where the *Titanic* sank.

Thursday, May 2

An inquiry into the *Titanic* tragedy begins by the British Board of Trade. The Board concludes "more watertight compartments in ocean-going ships, the provision of lifeboats for all on board, as well as a better lookout."

TITANIC VICTIMS VS. SURVIVORS

Name: _____

Directions: Using the chart provided, create a double-bar graph representing the percentages of those who died and survived from each category. Make sure to label it appropriately also. Then, answer questions #1-7 about the graph.

	Total	Died	Survived
1st Class	337	135 (40%)	202 (60%)
2nd Class	285	160 (56%)	125 (44%)
3rd Class	721	541 (75%)	180 (25%)
Crew	884	672 (76%)	212 (24%)

Questions:

1. Which category had the most people aboard the *Titanic*? Which had the least?

2. List the categories in order of greatest amount of deaths to least amount of deaths.

3. List the categories in order of least amount of survivors to greatest amount of survivors.

4. What can you conclude from the answers to #3 and #4?

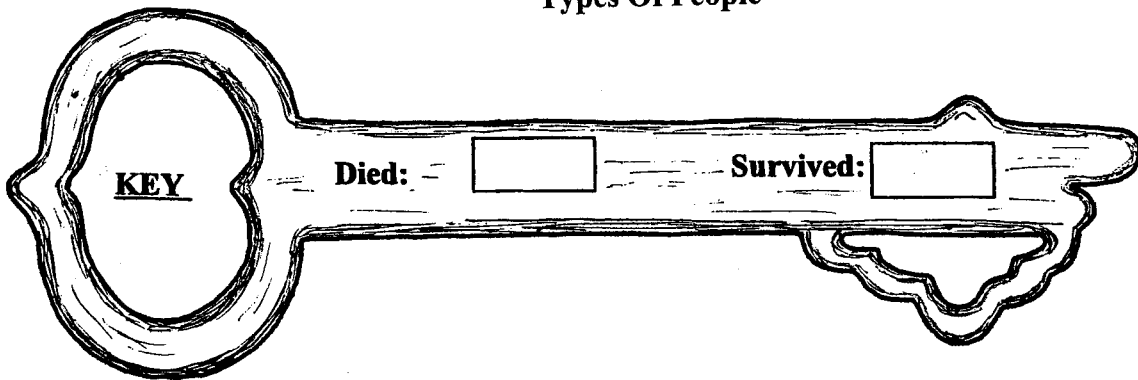
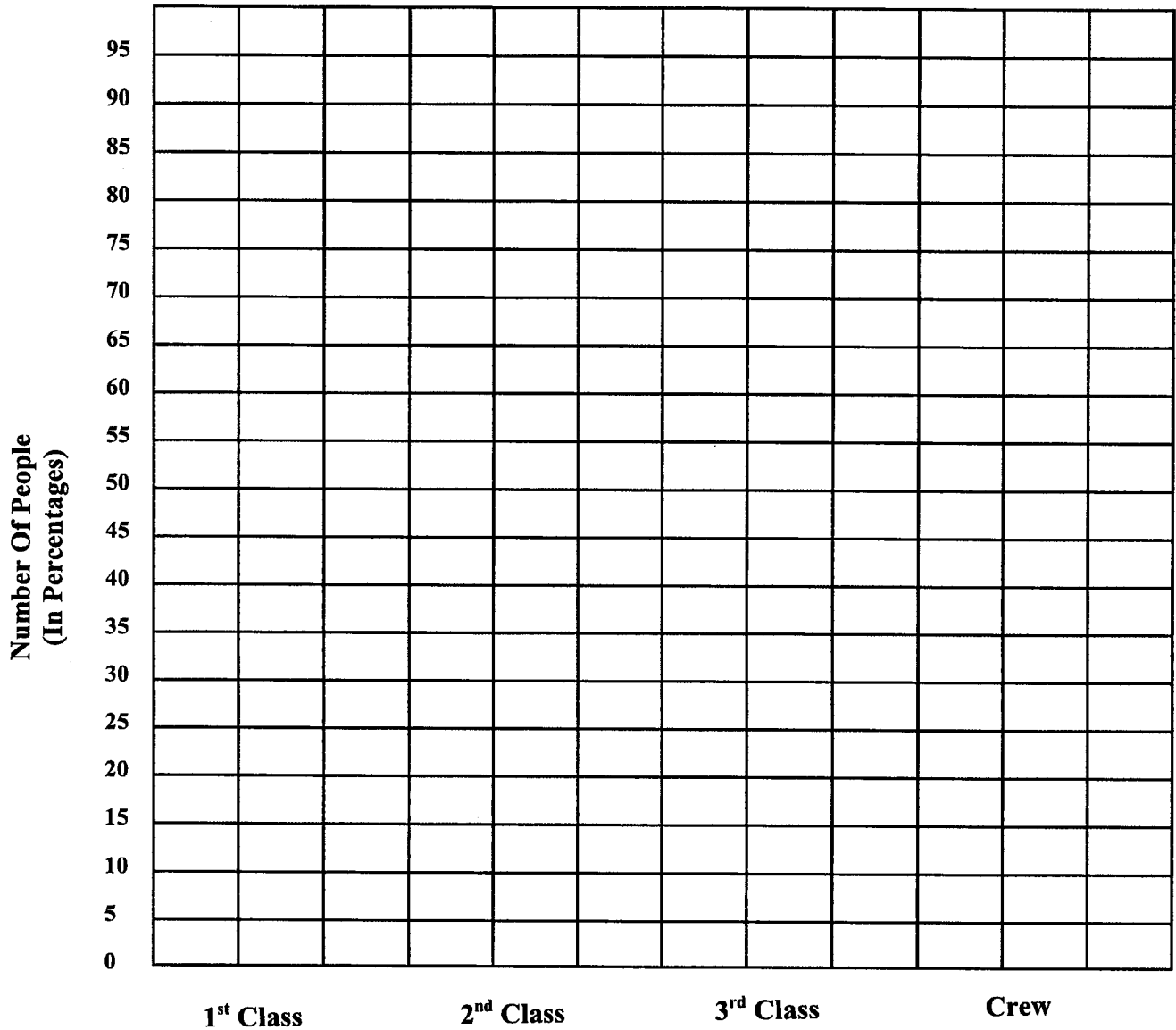
5. Why do you think there were so many more 3rd class deaths than in 1st or 2nd class?

6. Why do you think there were so many crew deaths?

7. How many died out of the total 2,227 people aboard? How many survived?

TITANIC VICTIMS VS. SURVIVORS

(Double Bar Graph)



IF ONLY....

Could the catastrophe of the *Titanic* sinking have been avoided? Read the following statements and determine whether you think the outcome could have been different “if only...” Then, share your own “if only” statement.

- If only... so many people had not believed that the *Titanic* was truly unsinkable, then precautions could have been taken and preparations made to ensure a safe voyage.
- If only... the British Trade regulations had required more than 16 lifeboats for oceanliners over 10,000 tonnes, then more *Titanic* passengers and crew could have been rescued.
- If only... binoculars had not been left behind, then the lookouts could have spotted the iceberg sooner and allowed more than 30 seconds to respond to the emergency situation.
- If only... proper emergency evacuation drills had been conducted, then the crew could have handled the emergency better and loaded the lifeboats completely full.
- If only... all of the lifeboats had been full, then 470 more people could have been rescued.
- If only... the *Californian* would have responded to the *Titanic's* many distress signals, then many more people could have been rescued.
- If only... Captain Smith had heeded the ice warnings that were sent from the exact area of the *Titanic's* collision, then the collision could have been avoided.
- If only... the *Titanic* had slowed down instead of speeding up, there could have been more time to respond when the iceberg was sighted.
- If only... it had been a colder spring, then the iceberg would not have broken off the coast of Greenland and floated as far south as it had. It was beyond the normal area where icebergs are usually encountered by ships.
- If only... the *Titanic* had hit the iceberg straight on, then only the first couple of watertight compartments would have been damaged and the *Titanic* could have stayed afloat.
- If only... the gash caused by the iceberg had only cut into four or less watertight compartments instead of six, then the *Titanic* could have stayed afloat because the water could have been controlled while the electric pumps pushed it back out into the sea.
- If only... the maiden voyage had not been changed from its original date of March 20, 1912 to April 10, 1912, then the ship could have encountered a smaller ice field.
- If only... _____

LESSON #7 - THE DISCOVERY

Student Objectives and Activities

- Students learn about attempts to locate the *Titanic*.
- Students learn details about the condition of the *Titanic* after over 73 years on the ocean floor.
- Students write an “opinion paper” about the treatment of the *Titanic* wreck site.

Suggested Teaching Strategies

- Begin this lesson by asking the class to think like “scientists”. Ask them how they would go about locating the *Titanic* 4 km underwater. Discuss the different methods presented by the students.
- Next, read “**Discovering the *Titanic***”.
- Lastly, have the students write an opinion paper, “**Historical Relic or Graveyard?**”, on whether the *Titanic* should be disassembled and researched as an historical relic or whether it should be left alone and respected because it is a graveyard. (You may choose to follow-up with a debate.)

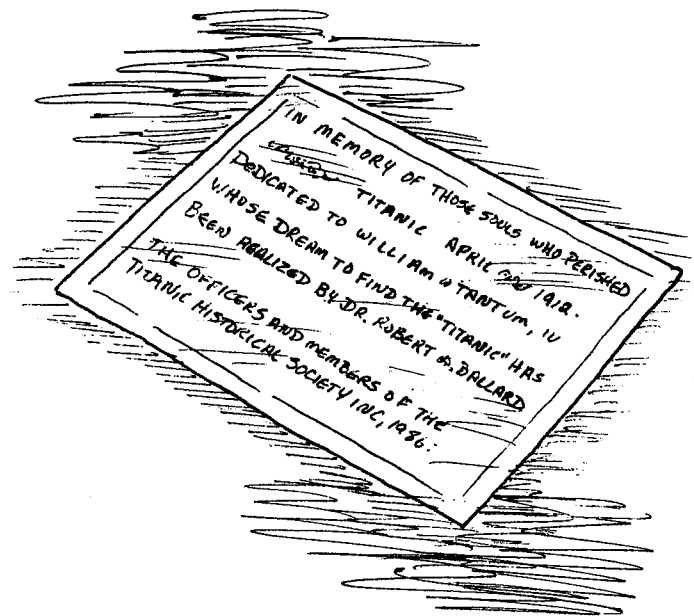
DISCOVERING THE *TITANIC*

It wasn't until the 1970's, that underwater equipment was advanced enough to successfully locate an object as deep as the *Titanic* on the ocean floor. From 1980 to 1983, Jack Grimm, a U.S. entrepreneur and explorer, funded three scientific expeditions to try and locate the *Titanic* wreckage. All three attempts failed due to bad weather or equipment malfunctions. Then, in August 1985, Dr. Robert Ballard needed to test underwater equipment for the Navy, so he decided locating the *Titanic* would be the ultimate test of the equipment's capabilities.

With the help of sonar, Dr. Ballard and his team of French and American scientists (IFREMER), were able to map the ocean floor. Then, two robots named Argo and Angus took pictures of what the sonar picked up. On September 1, 1985, with only a week left in the expedition, the *Titanic* was located 20 km southeast from where it sank. During the ship's 4 km descent to the ocean floor, it had relocated itself that much. Its official resting place was approximately 650 km southeast of Newfoundland and 1,600 km due east of Boston, Massachusetts. The bow and stern were approximately 600 meters apart on the ocean floor. Although thousands of pictures were taken, Dr. Ballard and his team had to wait until the next summer for it to be safe enough to send a submersible 4 km deep and visit the site in person.

In July 1986, Dr. Ballard and another scientist named Martin Bowen, took Alvin, a submersible, down to the wreckage. Attached to Alvin was a robot named Jason Jr. (JJ), that the scientists maneuvered from inside Alvin. JJ had a video camera, still camera, and special lights that could all be controlled by Alvin. Although corroded from its many years on the ocean floor, the *Titanic* had withstood the elements amazingly well, enabling the men to learn much about its sinking by examining the hull.

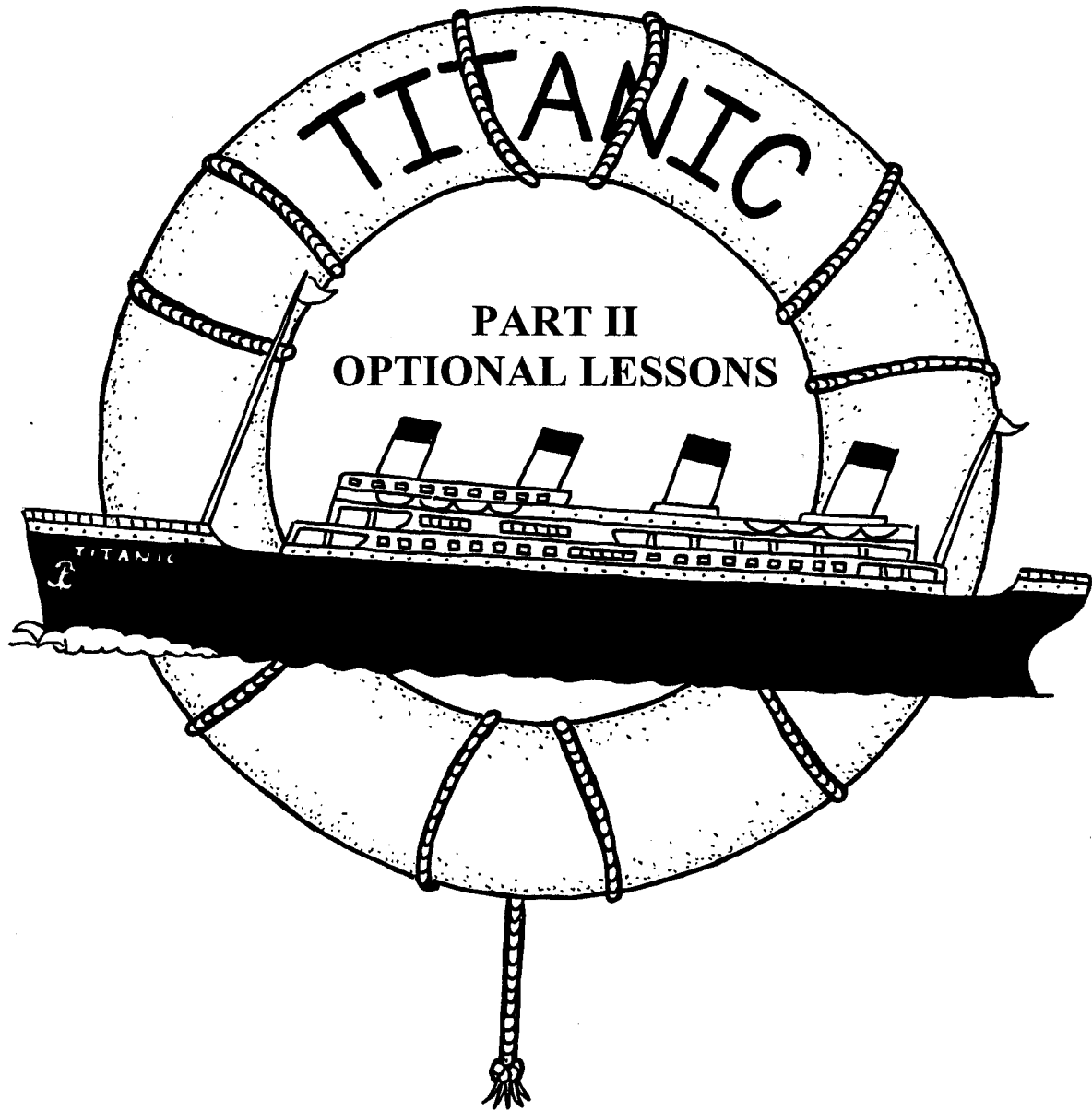
Before Dr. Ballard left the wreckage that summer, he left a plaque by the stern of the *Titanic* where the doomed passengers had sang hymns as the *Titanic* sank. The plaque read, "In memory of those souls who perished with the *Titanic*, April 14, 1912".





Since the *Titanic* was located in 1985, many treasures have been retrieved and put on display, or even sold. In August 1998, a 20 tonne piece of the *Titanic*'s hull was recovered and is currently part of a *Titanic* exhibit open to the public. Should the *Titanic* wreckage be disturbed and researched as an historical relic or should we respect the dead and treat it as a graveyard, leaving it intact? What do you think?

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slightly textured appearance, typical of standard office or school paper. There is no handwriting or other markings on the page.



PART II - OPTIONAL LESSONS

Optional Lesson #1 - Titanic Bulletin Board

As a cooperative learning activity, design a bulletin board featuring the *Titanic*. Divide the class into groups and give each group a specific assignment. You may choose to have each group design a certain part of the ship (with very specific size guidelines) to be pieced together with the other groups' pieces. Another option would be to assign each group a different phase, such as one group sketches the ship, the next group paints or colours it in, the next group labels it, etc. (FYI: You can find *Titanic's* deck plans at the website: www.rmplc.co.uk/eduweb/sites/phind/.)

Optional Lesson #2 - Ship Vocabulary

The following terms are often used to describe parts of a ship. Students could be asked to find the definitions in an enrichment activity.

aft:	the back portion of the ship
astern:	reverse, towards the rear of the ship
boiler:	a large coal-burning furnace that boils water to create steam needed to power the ship
bow:	the front end of a ship
bridge:	the platform from which the ship is controlled
crow's nest:	a platform high up on a ship's mast used for a lookout
davit:	a small crane that is used to lower lifeboats over the side of a ship
forward:	the front portion of the ship
funnel:	the chimneys of a ship from which smoke or steam escapes from the engines
helm:	a wheel or lever used to steer the ship
hull:	the frame of a ship
keel:	the bottom of the ship
port:	the left side of a ship
promenade:	an upper deck on a ship where passengers may walk about
starboard:	the right side of the ship
stern:	the back end of the ship

Optional Lesson #3 - Pounds vs. Dollars

In 1912, England used the pound as their monetary unit. To help the students understand the value of this unit in 1912, use the conversions below to complete problems #1-19. (Multiply by fifteen times to calculate the approximate dollar value today.)

12 pence = 1 shilling

20 shillings = 1 pound (£)

£1 = \$5

1. If 20 shillings equals £1, and £1 equals \$5.00, then what is the value of a shilling in cents? **Answer:** 25 cents (Today's value: \$3.75)
2. It cost \$.50 to play a game of squash aboard the *Titanic*. How many shillings would it cost? **Answer:** 2 (Today's value: \$7.50)
3. It cost four shillings for a visit to the Turkish bath (steam room), how many dollars would it cost? **Answer:** \$1.00 (Today's value: \$15.00)
4. There were over 250 passenger telegrams sent and received during the *Titanic*'s maiden voyage. It cost \$3.12 to send up to a ten word wireless telegram, and 9 pence for every additional word. If a pence was worth 2 cents, how many shillings and pence would it cost to send an eight word telegram? **Answer:** 12 shillings and a sixpence (Today's value: \$46.80)
5. Captain Smith earned a salary of £105 per month, how much did he earn in dollars per year? **Answer:** \$6,300 (Today's value: \$94,500)
6. Lookout G.A. Hogg earned a salary of £5 and 5 shillings per month, how much did he earn in dollars per year? **Answer:** \$315 (Today's value: \$4,725)
7. Stewardess Annie Robinson earned a salary of £3 and 10 shillings per month, how much did she earn in dollars per year? **Answer:** \$210 (Today's value: \$3,150)
8. In 1912, skilled shipyard workers worked almost 50 hours per week and earned a £2 salary per week. If a worker wanted to immigrate to the USA with his wife and six kids, how many weeks of work would it take to earn enough money for eight 3rd class *Titanic* tickets priced at £6 each? **Answer:** 24 weeks = 6 months
9. The fanciest first class parlor suite aboard the *Titanic* cost £870 (\$4,350). A second class cabin cost £12. How much would these accommodations cost in dollars? **Answer:** \$4,350 and \$60 (Today's value: \$65,250 and \$900)

POUNDS VS. DOLLARS

Name: _____

Directions: In 1912, England used the pound as their monetary unit. Use the conversions below to complete problems #1-9. (Multiply fifteen times to calculate the approximate dollar value today.)

12 pence = 1 shilling

20 shillings = 1 pound (£)

£1 = \$5

1. If 20 shillings equals £1, and £1 equals \$5.00, then what is the value of a shilling in cents?

Answer:

Today's value:

2. It cost \$.50 to play a game of squash aboard the *Titanic*. How many shillings would it cost?

Answer:

Today's value:

3. It cost four shillings for a visit to the Turkish bath (steam room), how many dollars would it cost?

Answer:

Today's value:

4. There were over 250 passenger telegrams sent and received during the *Titanic's* maiden voyage. It cost \$3.12 to send up to a ten word wireless telegram, and 9 pence for every additional word. If a pence was worth 2 cents, how many shillings and pence would it cost to send an eight word telegram?

Answer:

Today's value:

5. Captain Smith earned a salary of £105 per month, how much did he earn in dollars per year?

Answer:

Today's value:

6. Lookout G.A. Hogg earned a salary of £5 and 5 shillings per month, how much did he earn in dollars per year?

Answer:

Today's value:

7. Stewardess Annie Robinson earned a salary of £3 and 10 shillings per month, how much did she earn in dollars per year?

Answer:

Today's value:

8. In 1912, skilled shipyard workers worked almost 50 hours per week and earned a £2 salary per week. If a worker wanted to immigrate to the USA with his wife and six kids, how many weeks of work would it take to earn enough money for eight 3rd class *Titanic* tickets priced at £6 each?

Answer:

9. The fanciest first class parlor suite aboard the *Titanic* cost £870 (\$4,350). A second class cabin cost £12. How much would these accommodations cost in dollars?

Answer:

Today's value:

Optional Lesson #4 - Icebergs

Learn where icebergs originate, how they vary in size, and other interesting information. One informative source is at www.sciencedrive.com/mitchk/interest.htm (toward the bottom of the page).

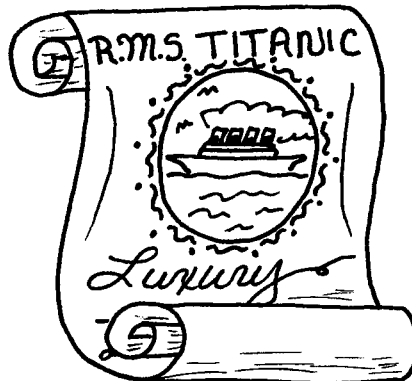
Optional Lesson #5 - Propaganda

Discuss "propaganda" and how it influences our society. Use incorrect newspaper headlines about the *Titanic's* collision to discuss how propaganda originates and how misleading it can be. (Some headlines are available at www.sciencedrive.com/mitchk/interest.htm (scroll down to find it).



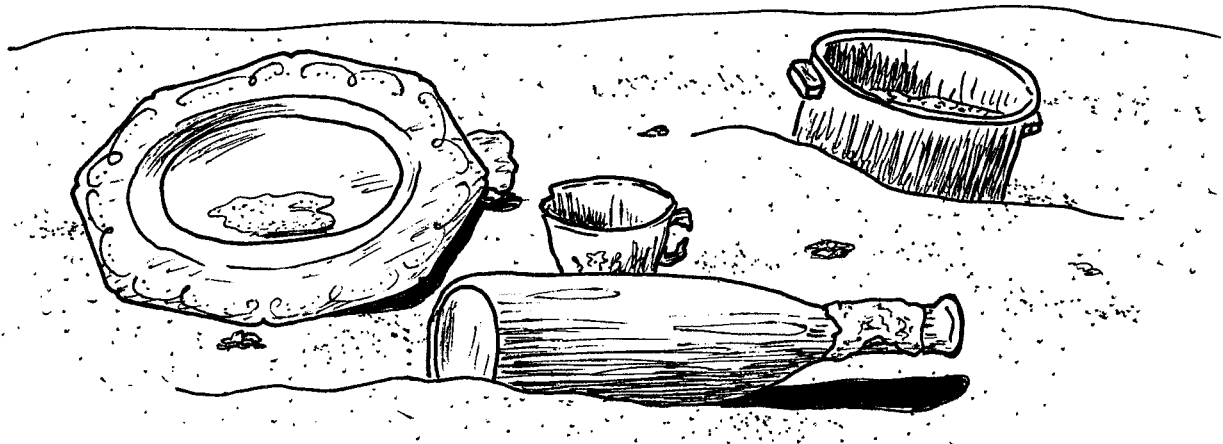
Optional Lesson #6 - Advertisements

Create advertisements for the *Titanic*/White Star Lines. Actual advertisements may be seen at www.cyberspc.mb.ca/~kuffner/titanic/advertisement.htm (in colour).



Optional Lesson #7 - Restoring Artifacts

There are over 4,000 recovered artifacts from the *Titanic*. Learn how the artifacts have been restored by visiting www.titanic-online.com/library/recovery/artifacts/ and reading about the in-depth process. Many artifacts are pictured and described at this website as well.



Optional Lesson #8 - Educational Media

The following list is a compilation of *Titanic* videos which are **NOT RATED**, many of which are documentaries. You will need to preview your selection before showing it to your students, as well as obtain the appropriate approvals as per your school's policy.

"A Night to Remember" (1958) - Movie based upon the 1955 book by Walter Lord, 119 min., golden globe winner

"The Unsinkable Molly Brown" (1964) - Movie based upon Meredith Wilson's musical, 128 min.

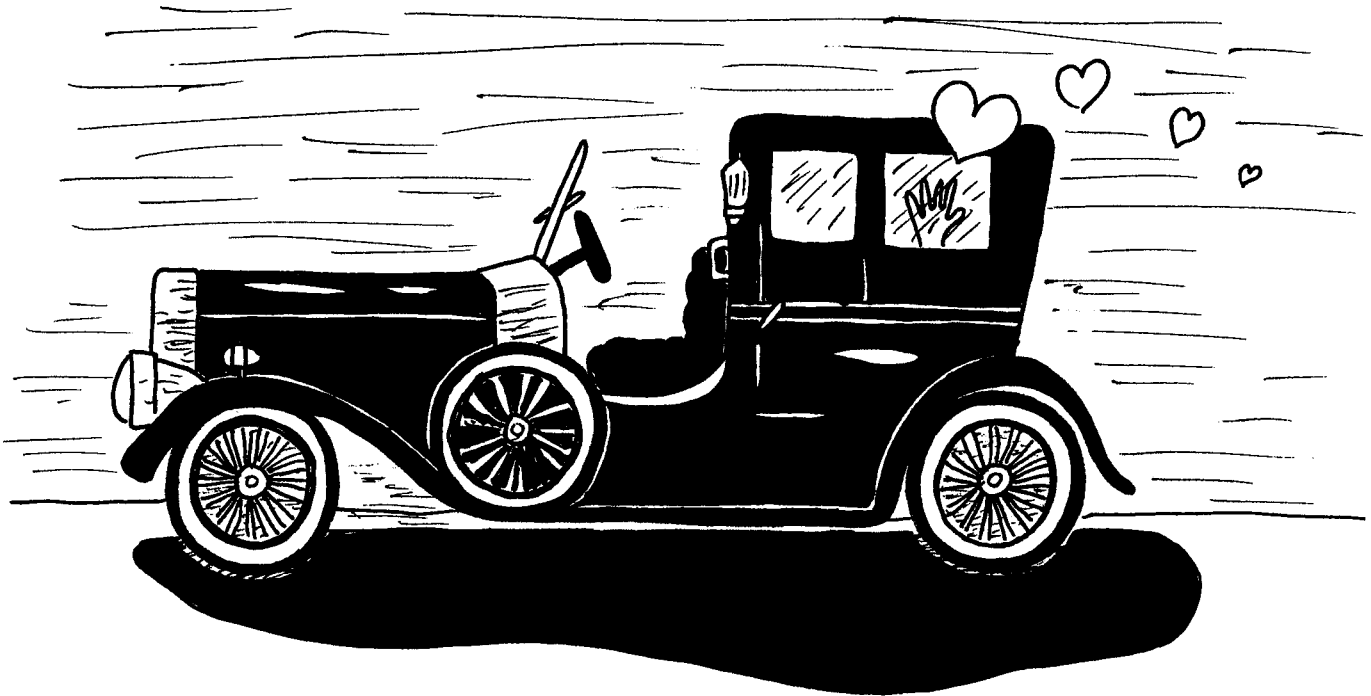
"Titanica" (1992) - IMAX documentary of *Titanic's* wreckage, 95 min.

"Titanic" (1994) - Four volume documentary by A&E which includes rare footage, photos, and personal accounts, 200 min.

"Secrets of the *Titanic*" (1986) - National Geographic Documentary which includes *Titanic's* construction, voyage, and footage of the wreckage, 76 min.

***** Note *****

Although there is a great temptation to use the recent blockbuster hit movie (starring Kate Winslett and Leonardo - the mall rat) be cautious. Teachers may have difficulty explaining certain scenes such as the one in the car - "Oh, I think Rose is just wiping the fog off the window?". This video might not be well advised!



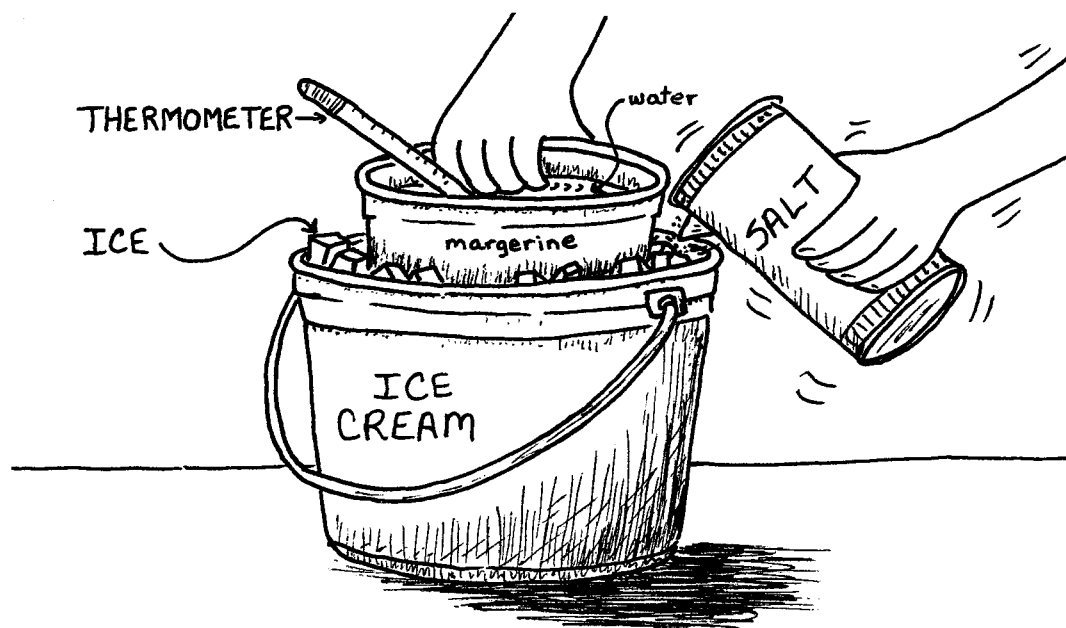
Optional Lesson #9 - Internet Websites

The following are a list of *Titanic* websites on the internet. There are many more, but these are very informative, and provide links to others as well:

- 1) **www.rmplc.co.uk/eduweb/sites/phind** (Encyclopedia *Titanic*)
- 2) **www.shastalink.k12.ca.us/shastalink/titanic.html** (Website created by teachers and students to help other teachers and students with *Titanic* research.)
- 3) **www.intercall.net/~jsadur/titanic** (*Titanic* timeline, facts, passengers/crew, etc.)
- 4) **www.sciencedrive.com** (Comprehensive website filled with *Titanic* information.)
- 5) **www.geocities.com/Athens/Agora/6683/contents2.html** (Stories and biographies of *Titanic* passengers and crew.)
- 6) **www.ilap.com/garnold/other.htm** (List of pictures and audio recording sites about the *Titanic* on the internet.)
- 7) **www.tcp.ca/1998/9806/9806ol/titanic/titanic.html** (Addresses for the top ten *Titanic*-related websites by the producer of Exploration Network.)

Optional Lesson #10 - Cold Is Cold!

A simple experiment using crushed ice, salt and water can be used to demonstrate, first hand, just how cold the North Atlantic waters were on the night the *Titanic* went down (-2° Celsius). Fill a plastic or glass container with cold water and place it within a slightly larger container. On the sides of the larger container, place crushed ice cubes or snow. (Caution: avoid yellow snow!) Add salt to the crushed ice and stir. The temperature will drop, causing the water temperature in the inner container to fall. This can be observed by placing a thermometer in the inner container of water. When the water temperature has fallen to -2° Celsius challenge students to see how long they can hold their hand in the water. (A one minute time limit might speed things up.) The results are interesting, especially considering that *Titanic* passengers were immersed totally in the cold ocean water.

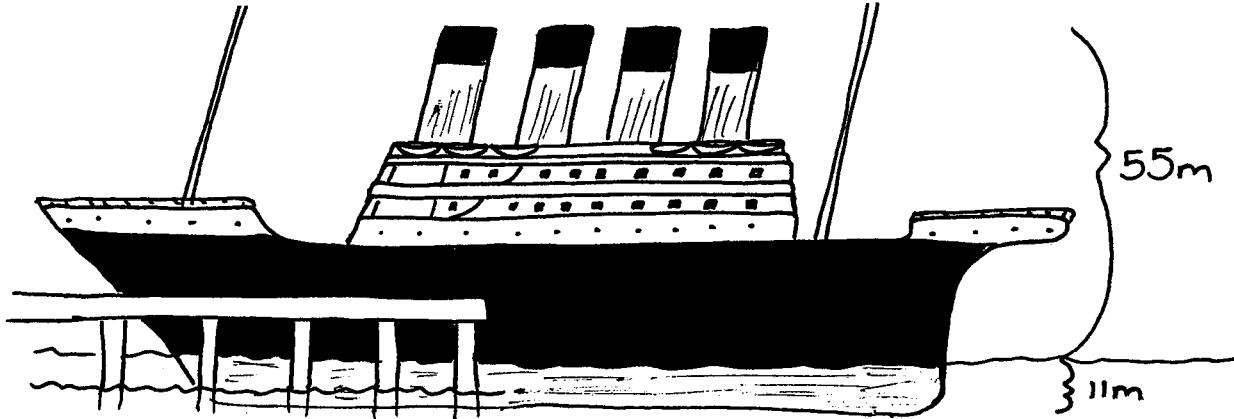


Optional Lesson #11 - Brainteasers To Make Teachers Look Smart

These two old brain teasers might be incorporated at some point in the unit.

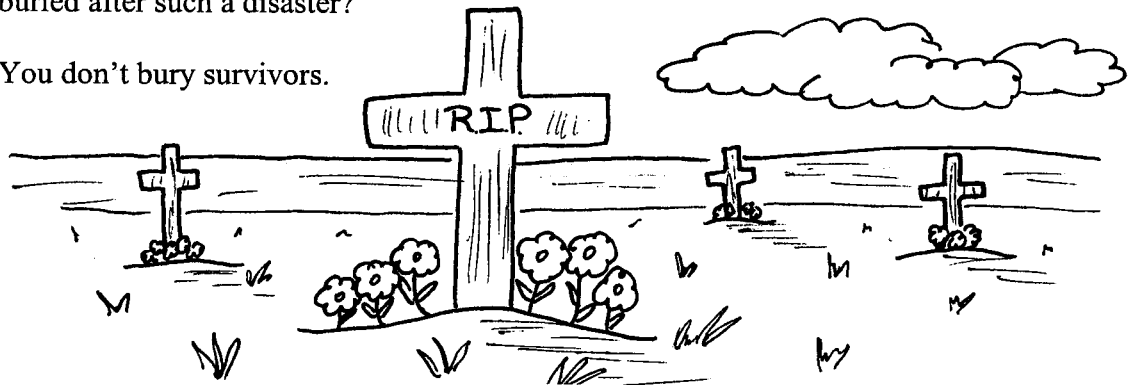
Question: Titanic was 11m in the water and 55 meters out of the water sitting at her dock in Southampton. If the tide rose at a rate of 0.5 meters per hour, where would the level of the water read after three hours?

Answer: The waterline would stay the same at 11 meters. The ship rises with the tide.



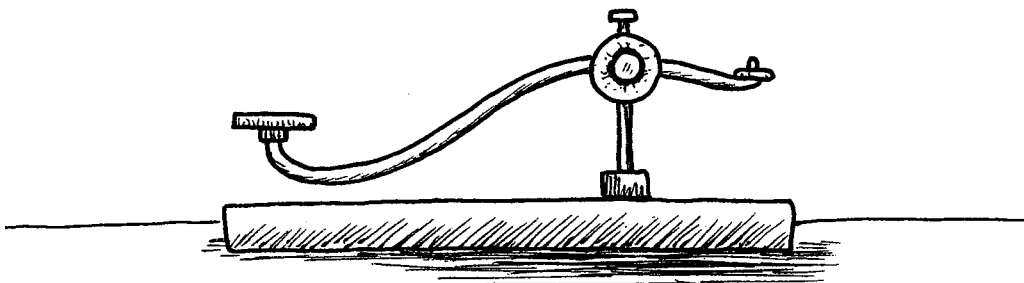
Questions Of the 2227 people aboard the Titanic, 1522 were lost. Where would the survivors be buried after such a disaster?

Answer: You don't bury survivors.

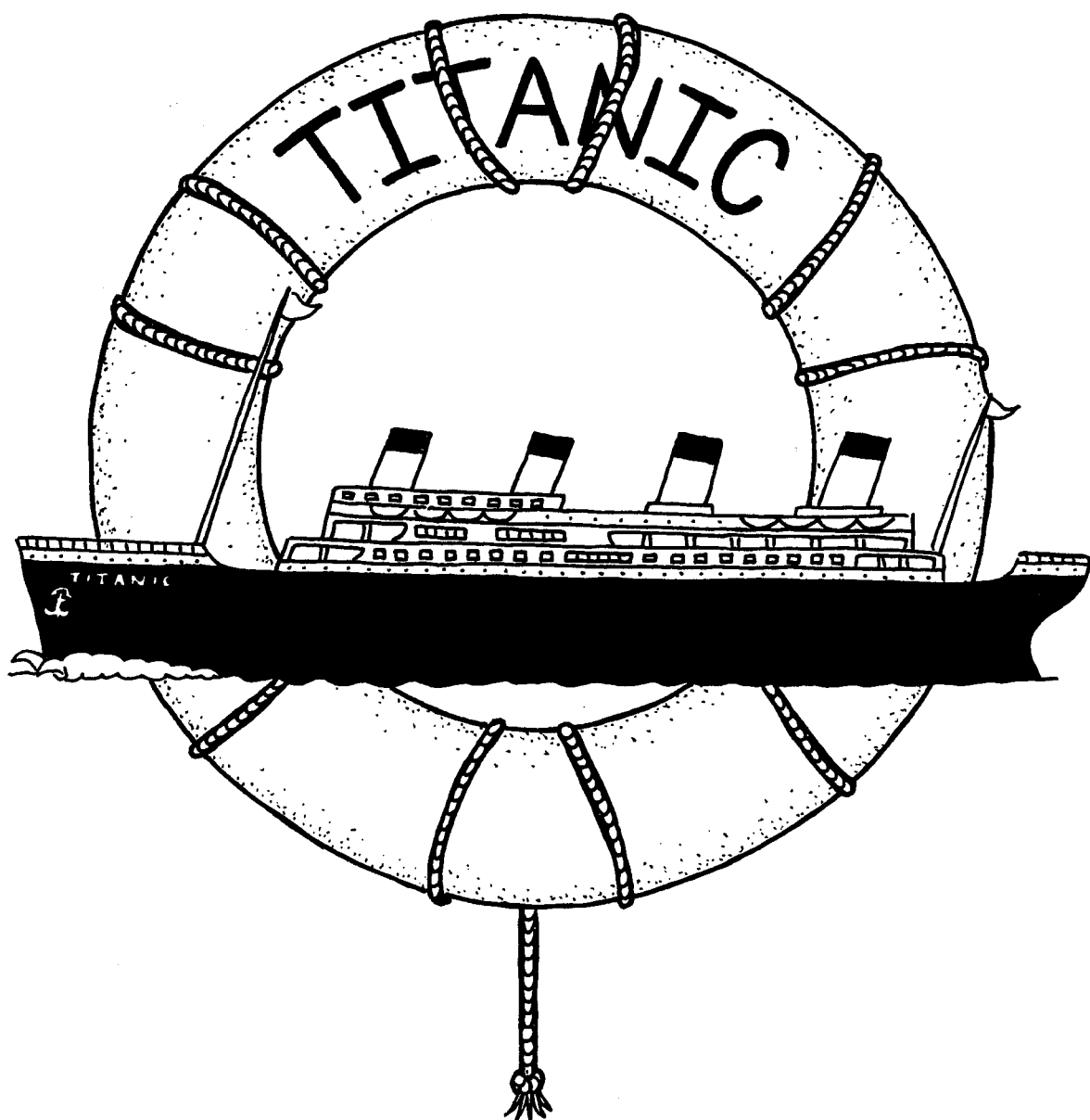


Optional Lesson #12 - Electromagnet Morse Code Device

As an enrichment activity, students can make an electromagnet device that can be used to send messages using Morse code.



PART III
TITANIC'S LIVING MUSEUM
(Major Project)



PART III - LIVING MUSEUM (MAJOR PROJECT)

Student Activities

- Groups research, write a script and prepare displays for brief presentations about *Titanic* passengers and crew members.
- The class creates a “living museum” where their presentations are given to visitors.

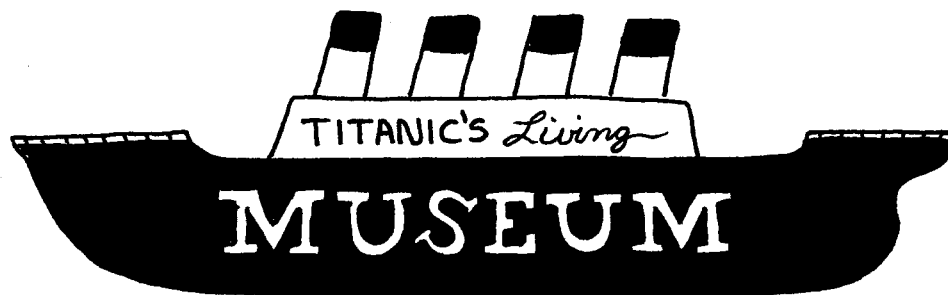
Suggested Teaching Strategies

- Introduce the major project by giving each student a copy of “**TITANIC MAJOR PROJECT OUTLINE**”. Explain that the ultimate goal is to create a “living museum” where each group presents their information to visitors. That presentation is made up of two parts: a script and display. The students will present in front of the class for a grade before presenting to the museum guests. The museum is a fun culmination activity to show others how much has been learned. (Presentations are graded in class beforehand, but a separate additional grade may be given at the museum as well.)
- Next, divide the students into groups for research assignments. You may choose to let the students select their own groups, have them draw names randomly to decide groups, or create cooperative learning groups with a mix of above-average, average, and below-average students. The groups will vary in size depending on who they are researching.
- To help students decide who they want to research, brief descriptions are provided on the “**Passenger & Crew Descriptions**”.
- Use the “**Group Assignment List**” to keep a record of which student is assigned to which passenger or crew member.
- Next, each group needs to fill out a “**Group Contract**”, which states each individual student’s responsibilities for the project. At this point, one person should be chosen to be the group leader. Then, each group will meet with the teacher to discuss the contract. Students should be encouraged to be creative, thorough, and work as a team. Teachers make a copy of it for monitoring and grading purposes, then return the original to the group leader for the group to refer to throughout the project.
- Now that students have their assignments, choose a due date for each group’s script and presentation. Ideally, the script should be completed first and submitted. The display and presentation may be graded simultaneously. Make sure you have allotted enough time and gathered the necessary materials, so that the students can complete the assignment during class time. Also, provide your own guidelines for the presentations (i.e. memorization, time limit, etc.) based on student abilities.
- Research can be done at the library, on the internet (see Optional Lesson #9 for addresses), or by using the information at your room’s “*Titanic* Resource Center” (if you have one).
- Use the grading scale on “***Titanic* Major Project**” to score the overall project.
- After presentations are done in class, create “***Titanic’s* Living Museum**”.

TITANIC'S LIVING MUSEUM

The living museum is a fun culmination project. Students are able to share their knowledge of the *Titanic* with friends, family, and members of the community. There are many things to be considered when creating the museum:

- 1) A large space will be needed to allow enough room for all the displays. Try to schedule the cafeteria or other large area for the event.
- 2) A date needs to be set well in advance so parents, teachers, and other guests can plan to attend. You may choose to have the event on a weeknight for a couple of hours or during school hours. If possible, schedule two tour times: evening for parents and day for teachers and their classes. (The date should be as soon after the class presentations as possible so the students still have it fresh in their memories and all props are handy.)
- 3) The event needs to be advertised. Create posters and flyers announcing the event. Announce the event in newsletters, morning announcements, and even the community newspaper. Many people in the community would enjoy attending an event like this one.
- 4) Since the students have recently finished their class presentations, all the displays (costumes, props, and sets) are finished. The only thing left to do is cover the walls behind each presentation area. You may use butcher paper, sheets, or design backdrops that relate to the people in each presentation.
- 5) Discuss with the students the format for the event. You may choose to have an open house type format where visitors to the museum tour on their own. Then, students need to be informed on when to begin their presentations. Another option is to have guided tours where students (who are not involved in the project) guide small groups of people from one area to the next listening to the presentations. At all times, students must remain in character and perhaps posed until the next group arrives and they become alive again and present.
- 6) You may choose to display some of the student work from the unit at the event as well.
- 7) After the event has been completed, there are still important things to be done. Students are responsible for their own displays. If items have been borrowed, they must be returned. You may also choose to give a separate grade for the performances.
- 8) Good Luck!



TITANIC MAJOR PROJECT OUTLINE

Objective

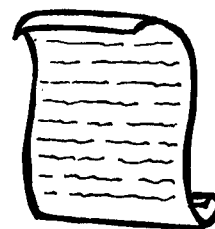
Students will work together in groups to write a script and prepare a display culminating in a presentation on *Titanic* passengers or crew members.

Directions

You will need to complete the following:

1) **Script**

- each member of the group writes 1-2 informative paragraphs about his/her person on a separate piece of paper. (pages will be placed together in order in a folder)
- the person's background should be included
- purpose for trip & class designation
- activities while on board (i.e. crew duties, play music, etc.)
- actions during the sinking
- fate (died or survived - if latter, what accomplished in life after the disaster)



2) **Display** (visual aids & props)

- costumes appropriate for the time period
- a setting (i.e. card table and chairs for playing cards, on the promenade deck looking out over the ocean with railing over waists, seated in the library surrounded by books, in the third class commons area at the piano singing, on the bridge steering the ship, etc.)

3) **Presentation** (the script presented orally)

- all members must have speaking parts, be in character, and use props

Grading Scale

Each category listed below is worth 25 points, totaling 100 points altogether. The display grade is the same for the entire group. The script, presentation and contribution grades are individually-based grades and vary, depending on each student's performance.

Script: This grade is based upon the mechanics and content of the script. Did you include all the information stated above using proper punctuation, spelling, and grammar? Did you write it in the first person? Is it a neat final draft?

Display: This grade is based upon the visual aspect of your presentation. Did you dress appropriately, create an appropriate set, and include props which enhanced your presentation? How creative and resourceful were you?

Presentation: This grade is based upon the oral presentation. Did you stay in character at all times and present all the information using good eye contact, body language and a loud, expressive voice? Did you memorize your part?

Contribution: This grade is based upon each individual's contribution to the overall project. Did you cooperate with the group, discuss everyone's ideas positively, contribute your own ideas, complete your responsibilities on time and to the best of your ability staying involved the entire time?

Due Dates

Report Due Date _____ **Display & Presentation Due Date** _____

PASSENGER AND CREW DESCRIPTIONS

Group One (3) - Main People

J. Bruce Ismay - President & Managing Director of White Star Lines

Thomas Andrews - Managing Director of Harland & Wolff; Chief Architect of *Titanic*

Captain Edward J. Smith - Captain of the *Titanic*

Group Two (4) - Crew

First Officer William Murdoch - in command when *Titanic* struck iceberg - gave orders

Second Officer Herbert Lightoller - helped load lifeboats and deemed a hero by many

Quartermaster George Rowe - fired distress rockets

Lookout Frederick Fleet - spotted the iceberg first and warned the bridge

Group Three (3) - Crew

Dr. William O' Loughlin - surgeon aboard the *Titanic*

Augustus Weikman - barber aboard the *Titanic*

Charles Joughin - chief baker - longest one to tread water until being rescued

Group Four (2) - Wireless Operators

Operator Jack Phillips - the senior operator

Operator Harold Bride - the junior operator

Group Five (3) - 1st Class Passengers

John Thayer - Vice President of the Pennsylvania Railroad

Marian Thayer - Wife of John Thayer

Jack Thayer - 17 year old son of John & Marian Thayer

Group Six (4) - 1st Class Passengers

Margaret "Molly" Brown - Denver Millionaire who took control of the lifeboat

Isidor Straus - Owner of Macy's Department Store; served in U.S. Congress

Hudson Allison Sr. - stockbroker - the only child to die in all 1st & 2nd class was his son

John Jacob Astor IV - one of the wealthiest men in the world

Group Seven (2) 2nd Class Passengers

Bandmaster Wallace Hartley - led the eight member band while on the *Titanic*

Father Thomas Byles - conducted Sunday mass; prayed with passengers during sinking

Group Eight (3) 2nd Class Passengers

Masabumi Hosono - Only Japanese passenger; public officer for Japanese Railway

Ruth Becker - 12 year old girl who traveled with mother and siblings

Joseph LaRoche - Engineer; only black passenger on the *Titanic*

Group Nine (3) 3rd Class Passengers

Frederick Goodwin - Electrical Engineer; immigrating with family from London to U.S.

Daniel Buckley - Irish man who disguised himself as a woman to load a lifeboat

Carla Jensen - 19 year old maid immigrating from Denmark to U.S.

Group Ten (3) 3rd Class Passengers

Alma Palsen - Swedish woman traveling with her 4 children to meet their father in U.S.

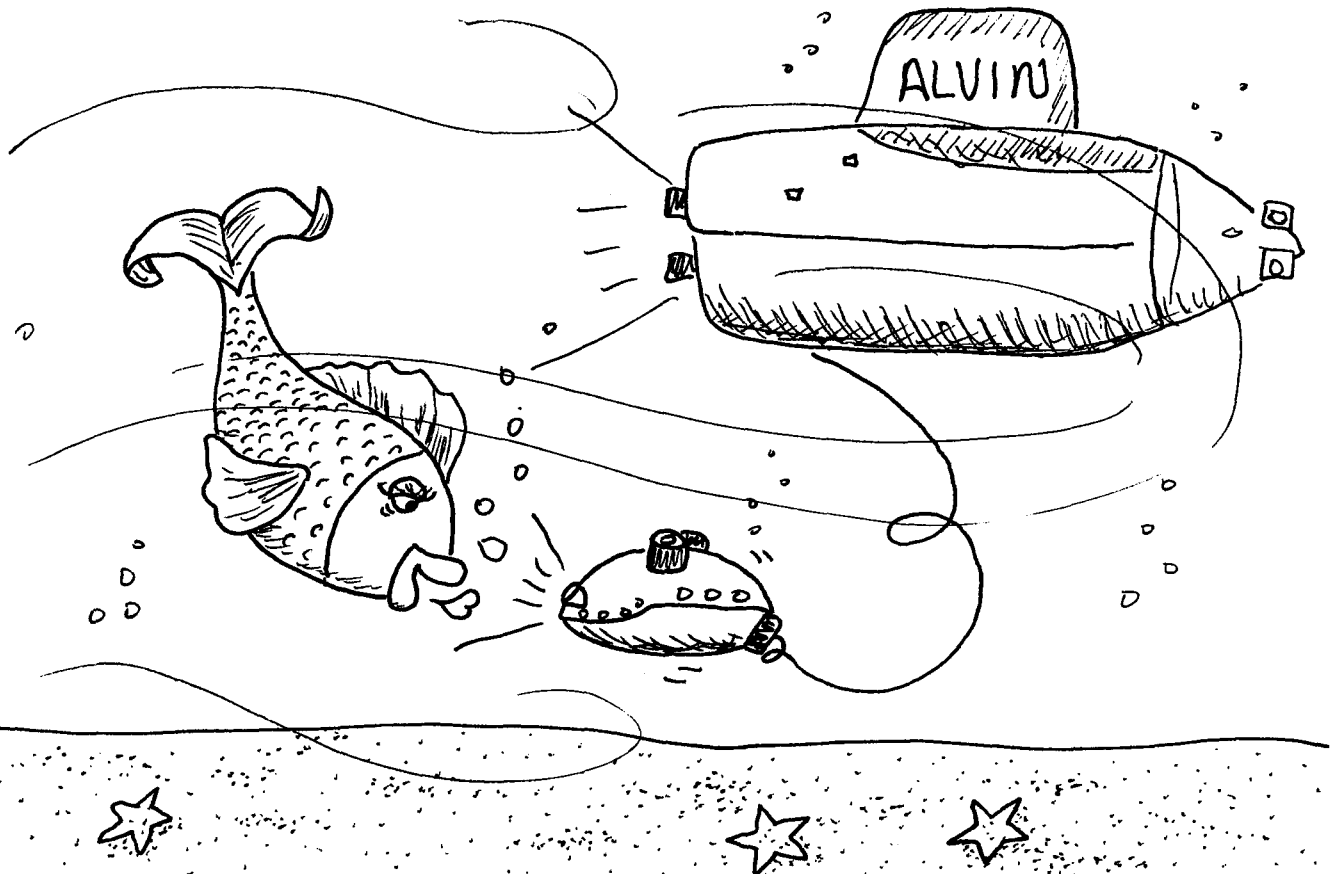
Amy Stanley - 24 year old single woman moving from London to be a children's maid

Philip Zenni - 22 year old Assyrian man; newlywed; traveling to Ohio

Group Eleven (2) Discovery Team

Dr. Robert Ballard - credited for locating and exploring the *Titanic* wreckage in 1985

Martin Bowen - invited by Ballard to explore the wreckage in the first submersible dive



GROUP ASSIGNMENT LIST

Group One (3) - Main People

J. Bruce Ismay

Thomas Andrews

Captain Edward J. Smith

Group Two (4) - Crew

First Officer William Murdoch

Second Officer Herbert Lightoller

Quartermaster George Rowe

Lookout Frederick Fleet

Group Three (3) - Crew

Dr. William O' Loughlin

Augustus Weikman

Charles Joughin

Group Four (2) - Wireless Operators

Operator Jack Phillips

Operator Harold Bride

Group Five (3) - 1st Class Passengers

John Thayer

Marian Thayer

Jack Thayer

Group Six (4) 1st Class Passengers

Margaret "Molly" Brown

Isidor Straus

Hudson Allison Sr.

John Jacob Astor

Group Seven (2) 2nd Class Passengers

Bandmaster Wallace Hartley

Father Thomas Byles

Group Eight (3) 2nd Class Passengers

Masabumi Hosono

Ruth Becker

Joseph LaRoche

Group Nine (3) 3rd Class Passengers

Frederick Goodwin

Daniel Buckley

Carla Jensen

Group Ten (3) 3rd Class Passengers

Alma Palsson

Amy Stanley

Philip Zenni

Group Eleven (2) Discovery Team

Dr. Robert Ballard

Martin Bowen

GROUP CONTRACT

List the names of the students in your group and who each person will research:

- | | |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

Using the same numbers, list the responsibilities of each student for this project:

- | | |
|----|-------|
| 1. | _____ |
| | _____ |
| 2. | _____ |
| | _____ |
| 3. | _____ |
| | _____ |
| 4. | _____ |
| | _____ |
| 5. | _____ |
| | _____ |
| 6. | _____ |
| | _____ |

Student Signatures:

_____	_____
_____	_____

Teacher's Signature of Approval:

Date: _____



TITANIC MAJOR PROJECT

Grading Scale

Student Name: _____

Group #: _____

Person researched: _____

The following grading scale is based upon the guidelines from the *TITANIC MAJOR PROJECT* OUTLINE (5 - excellent, 4 - good, 3 - average, 2 - fair, 1 - poor):

Script: (Each student receives an individual score.)

content	5	4	3	2	1
punctuation/grammar	5	4	3	2	1
spelling	5	4	3	2	1
organization	5	4	3	2	1
neatness	5	4	3	2	1

Total: _____ / 25

Display: (The entire group receives the same score.)

overall creativity	5	4	3	2	1
resourcefulness	5	4	3	2	1
used enhancing props	5	4	3	2	1
appropriate dress	5	4	3	2	1
appropriate set	5	4	3	2	1

Total: _____ / 25

Presentation: (Each student receives an individual score.)

stayed in character	5	4	3	2	1
presented all information	5	4	3	2	1
used presentation skills	5	4	3	2	1
memorized script	5	4	3	2	1
caused no distractions	5	4	3	2	1

Total: _____ / 25

Contribution: (Each student receives an individual score.)

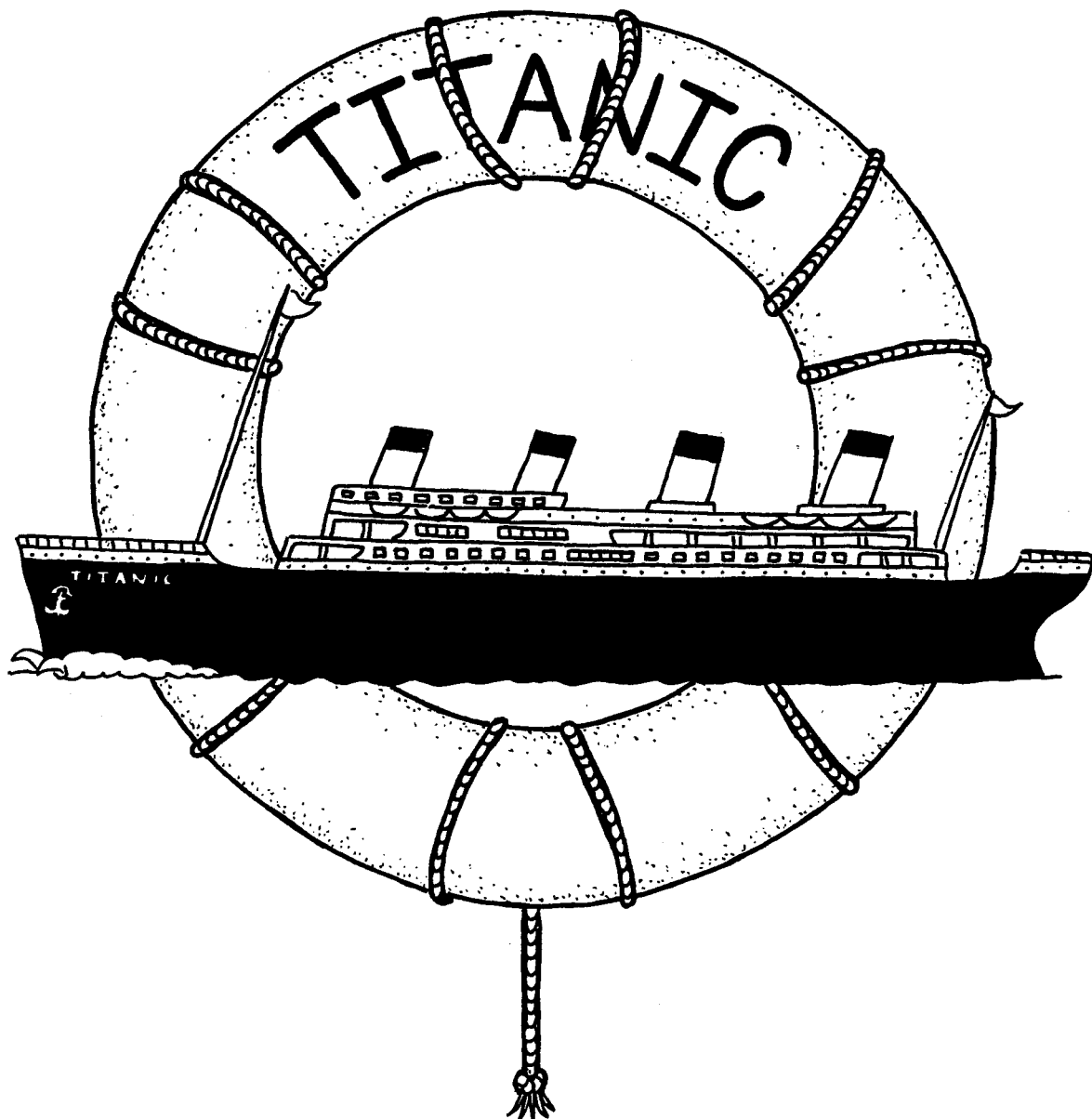
cooperated with others	5	4	3	2	1
positive attitude	5	4	3	2	1
contributed ideas / helpful	5	4	3	2	1
completed responsibilities	5	4	3	2	1
stayed on-task throughout	5	4	3	2	1

Total: _____ / 25

TEACHER'S COMMENTS:

TOTAL SCORE: _____ / 100

PART IV
A NIGHT TO REMEMBER
(Study Guide)



PART IV - A NIGHT TO REMEMBER STUDY GUIDE

This section is a study guide for Walter Lord's book, A Night To Remember. The book is based on the events that transpired during the night *Titanic* sank. The teacher may have each student read and answer the questions on the study guide independently, or the teacher may read a small portion each day to the class and then have the students answer the related questions from the study guide. The study guide covers all ten chapters of the book as follows:

<u>CHAPTER #</u>	<u>TITLE</u>
1.	"Another Belfast Trip"
2.	"There's Talk of An Iceberg, Ma'am"
3.	"God Himself Could Not Sink This Ship"
4.	"You Go and I'll Stay A While"
5.	"I Believe She's Gone, Hardy"
6.	"That's The Way Of It At This Kind Of Time"
7.	"There Is Your Beautiful Nightdress Gone"
8.	"It Reminds Me Of A Bloomin' Picnic"
9.	"We're Going North Like Hell"
10.	"Go Away-We Have Just Seen Our Husbands Drown"

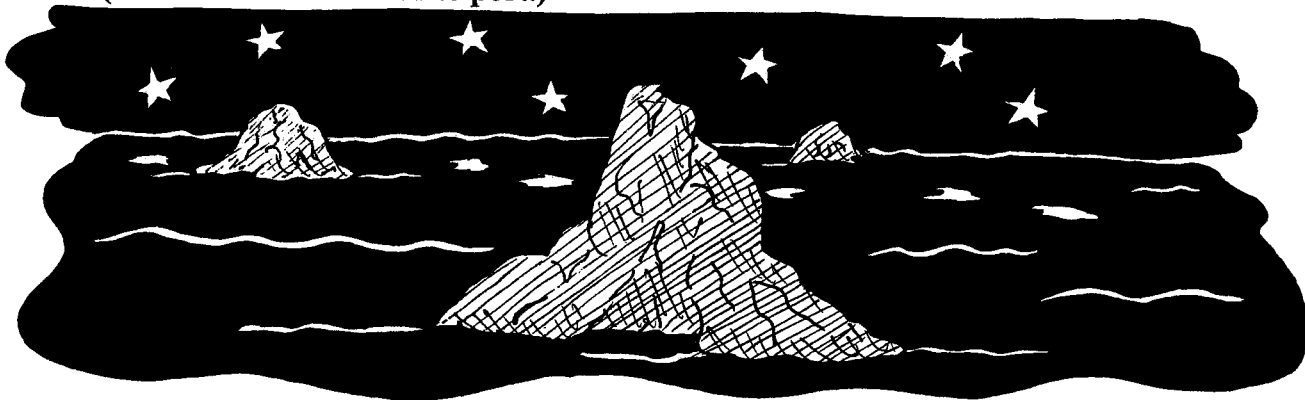
*****Note*****

There are two sets of study guides included. One set is the teacher's key with all the answers. The other set is left blank for students to answer. Note that, where possible, students should be reminded to answer all questions in full sentences.



CHAPTER I: "Another Belfast Trip"

1. What was so unusual about the Atlantic Ocean that night?
(It was very smooth - like polished plate glass.)
2. How many days into the Maiden Voyage are they when this book begins?
(The *Titanic* is 5 days into its voyage.)
3. What was Frederick Fleet's duty?
(He was a lookout.)
4. How fast was the *Titanic* going around 11:40 p.m.?
(The *Titanic* was traveling at 22 1/2 knots.)
5. What signal did Fleet give to warn the bridge of danger ahead?
(He rang the crow's nest bell three times.)
6. How much time passed before the *Titanic* reached the iceberg?
(Approximately 37 seconds passed.)
7. How far above the water did the iceberg tower?
(Approximately 100 feet of the iceberg towered above water.)
8. What was the time-honored pastime of off-duty stewards?
(Gossiping about passengers was the time-honored pastime.)
9. Who was J. Bruce Ismay?
(Ismay was the Managing Director of White Star Lines.)
10. What two orders did First Officer William Murdoch give to avoid colliding with the iceberg?
(The orders were "Hard-a-starboard" and "Full speed astern".)
11. Why was the *Californian* stopped?
(It was blocked by drifting ice.)
12. Why did it appear to the *Californian* that the *Titanic* had put out all its lights?
(The *Titanic* had turned to port.)





CHAPTER II: "There's Talk of an Iceberg, Ma'am"

1. **What caused the passengers to stir?**
(The silence when the *Titanic* stopped.)
2. **How did the passengers respond to the collision at first?**
(They did not take it seriously. Many went out to see.)
3. **Where did tonnes of ice fall on to the *Titanic*?**
(It fell on the starboard well deck, which was the 3rd class recreation space.)
4. **What did some of the passengers collect as temporary souvenirs?**
(They collected small pieces of ice from the iceberg.)
5. **How did passengers and crew feel about Captain Smith?**
(They loved everything about him.)
6. **Who was Thomas Andrews?**
(He was Managing Director of Harland & Wolff Shipyard, *Titanic's* builder.)
7. **What was happening when the boat was "listing"?**
(It was tilting.)
8. **How many of the 16 compartments were flooded upon inspection?**
(A total of 5 compartments were flooded.)
9. **How many compartments at most could be flooded without the *Titanic* sinking?**
(As many as 4 compartments could be flooded and *Titanic* wouldn't sink.)
10. **What was Captain Smith planning to do after this voyage?**
(He was going to retire.)
11. **What time did Captain Smith order the lifeboats uncovered and the passengers mustered?**
(It was 12:05 a.m. when Captain Smith gave these orders.)
12. **Who are Bride and Phillips?**
(They are the wireless operators for the *Titanic*.)
13. **What does "CQD MGY" mean?**
(It is a distress call from the *Titanic*.)
14. **Why didn't the *Californian* receive the message?**
(Their wireless operator had already retired for the night.)



CHAPTER III: "God Himself Could Not Sink This Ship"

1. **How did the crew react to the warning at first?**
(There were a lot of wisecracks made.)
2. **How was the warning passed throughout the ship?**
(The word was passed in one form or another.)
3. **How did the stewards alert the first class passengers differently from the second class passengers?**
(Stewards knocked on the first class stateroom doors and even helped dress some of the passengers. In second class, the stewards threw open the cabin doors and shouted the warning.)
4. **What represented how the passengers felt about the situation?**
(The things people took with them.)
5. **What did the passengers do while waiting for the crew to get to their stations?**
(They joked and talked with each other.)
6. **How many lifeboats were there in total and how many people fit into them?**
(There were 20 lifeboats that could fit 1,178 people.)
7. **What added to the confusion among the passengers?**
(There had been no boat drill nor any boat assignments.)
8. **What was the band playing while the boats were being loaded?**
(They were playing ragtime tunes.)
9. **Describe Bruce Ismay's demeanor during the lifeboat loading?**
(He was frantic, demanding, dashing around, and urging the men to hurry.)
10. **What does it mean to say Ismay was "abashed"?**
(He was ashamed of himself.)
11. **Why was Quartermaster Rowe the last one to know about the situation?**
(He was on watch at the stern and no one had notified him.)
12. **Describe Thomas Andrews.**
(He was charming, dynamic, helpful, a natural leader, and knew people well.)
13. **How did the world find out about the situation?**
(An operator on the roof of a New York department store heard the signals.)

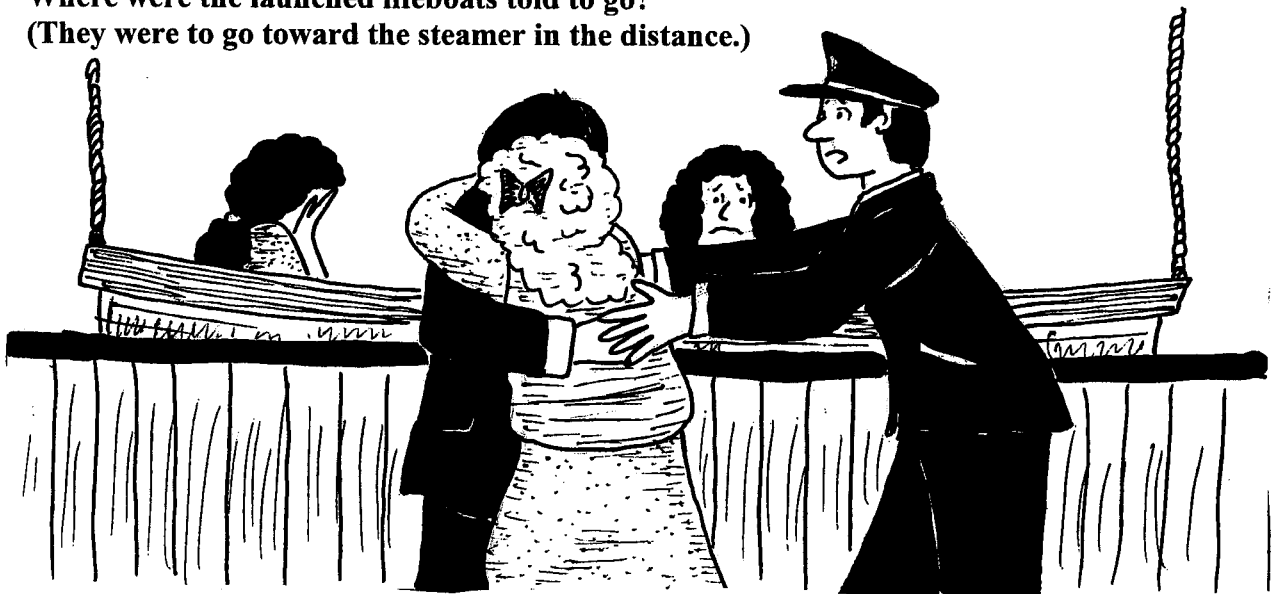
14. What was the closest ship to respond to the *Titanic's* distress call?
(The *Carpathia* was 58 miles away.)
15. What signal did Bride suggest for Phillips to use?
(Bride suggested using SOS - the new distress call.)
16. What did Rowe start doing at 12:45?
(Captain Smith ordered him to start shooting distress rockets.)
17. Did the *Californian* see the SOS sent by Morse lamp and the distress rockets?
(Yes. They couldn't figure them out.)





CHAPTER IV: "You Go and I'll Stay A While"

1. **How did the husbands deal with their wives refusal to leave them?**
(They used force, gentle deception, persuasion, begging and arguing to get their wives on the lifeboats.)
2. **What caused even the carefree passengers to grow uneasy?**
(The slant in the deck became steeper.)
3. **What did the stewards do to prevent looting?**
(They locked the stateroom doors.)
4. **How did Lightoller gauge the water level?**
(He counted how many steps were underwater on the emergency staircase.)
5. **What does it mean to say the pace grew "sloppier"?**
(Women were falling and even missing the boats when loading. Some were fussing and thrashing about while loading.)
6. **Why were more men loaded into lifeboats on the starboard side?**
(Officer Murdoch let them fill in spaces. Lightoller refused to on the port side.)
7. **How many seats were wasted in lifeboat #1?**
(28 out of the 40 seats were wasted.)
8. **Why was it difficult for the steward to communicate with many of the third class passengers?**
(They didn't understand English.)
9. **When were the third class women and children allowed past the barriers and led up to the boat deck?**
(They were allowed up around 12:30.)
10. **Where were the launched lifeboats told to go?**
(They were to go toward the steamer in the distance.)





CHAPTER V: "I Believe She's Gone, Hardy"

1. **Why was Phillips frustrated with the other ships?**
(They didn't understand the situation.)
2. **Why did everyone on board move to the starboard side?**
(The ship was tilting to port and this would straighten the ship up.)
3. **How was Daniel Buckley allowed to remain in a lifeboat?**
(He had a woman's shawl on over his head so he looked like a woman.)
4. **What was done by the crew to ensure that men wouldn't rush the lifeboats?**
(Some crew members had to shoot their pistols in the air.)
5. **When was the *Titanic* due into New York, according to Ismay?**
(It would reach New York Wednesday morning, April 17th.)
6. **When loading the last boat, how did the crew keep out the men?**
(They locked arms in a ring allowing only women and children through.)
7. **When did the last boat get launched?**
(The last boat was launched at 2:05 a.m.)





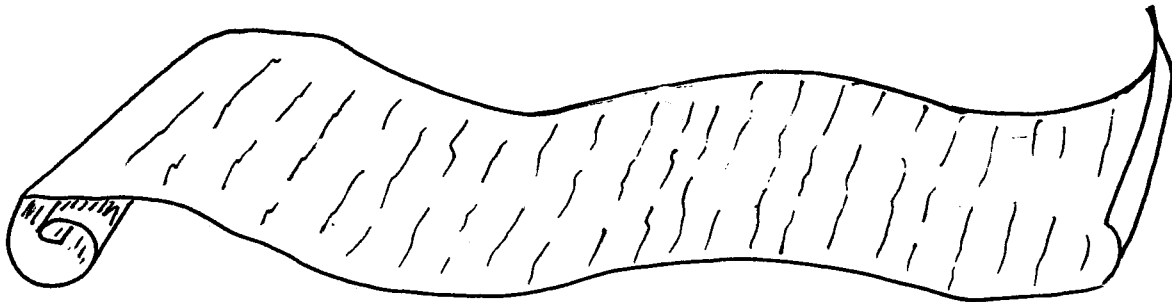
CHAPTER VI: "That's The Way Of It At This Kind Of Time"

1. Describe the mood on the *Titanic* when all the lifeboats had been launched?
(It was very calm and quiet.)
2. At 2:05 a.m., what order did Captain Smith give to the crew?
(“Every man for himself.”)
3. What time were the third class passengers (who were not part of the two groups led up earlier) allowed past the gates to find the boat deck on their own? (Women were allowed through at 1:30 a.m., and men came through at 2:00.)
4. Where was Thomas Andrews at 2:10 a.m.?
(He was alone in the smoking room, arms folded, silent, and stunned.)
5. How much did the temperature drop from 7:00 p.m. to 10:00 p.m.?
(The temperature dropped from 43 degrees to 32 degrees.)
6. What temperature was the sea at 10:30 p.m.?
(It was 31 degrees.)
7. How did Phillips respond to the *Californian's* message at 11:00?
(He told them to “shut up”.)
8. What type of song was the band playing at 2:15 a.m.?
(They were playing a hymn.)
9. Since collapsibles A & B could not be launched, how did they reach the sea?
(They floated away once the sea reached the boat deck.)
10. What was the wave caused by?
(When the bow dipped down, the stern swung slowly up and forward.)
11. What does it mean to say the *Titanic* was “perpendicular”?
(It was sticking straight up in the water.)
12. What time did the *Titanic* finally sink?
(It sank at 2:20 a.m.)
13. What was the women's mood in the lifeboats after the sinking?
(They were dazed, dumbfounded, and without emotion.)
14. What explanation did the *Californian's* crew have for the *Titanic's* lights being low on the horizon?
(The *Titanic* was steaming away from them.)



CHAPTER VII: "There Is Your Beautiful Night Dress Gone"

1. How were ice messages received by liners after the *Titanic* sank?
(They were taken seriously. The liners steered clear and slowed down.)
2. What did the American and British governments do after the sinking?
(They formed the International Ice Patrol.)
3. How was wireless service changed after the sinking?
(All passenger ships had 24 hour radio watch.)
4. How did lifeboat regulations change after the sinking?
(All ships were equipped with enough lifeboats for all passengers.)
5. What were the loading procedures for lifeboats after the sinking?
(No class distinctions in filling boats.)
6. How many first and second class children died compared to third class?
(One child in first and second class died compared to 23 in third class.)
7. List the number of women casualties in each class.
(First=4, Second=15, Third=81)
8. How did most third class passengers feel about the incident?
(They felt ignored, neglected, and forgotten.)
9. What news would never get by the "social consciousness" of today's press?
(The loss rate was higher for third class children than for first class men.)
10. Why weren't the problems with third class passengers addressed?
(No one was interested.)
11. Why were the "wealthy" in the center of public affection in 1912?
(There were no movie, radio, TV, or sports stars.)
12. What did the *Titanic* disaster mark the beginning of?
(It marked the beginning of a new, uneasy era - lack of confidence overall.)



CHAPTER VIII: "It Reminds Me Of A Bloomin' Picnic"

1. **How did Officer Lowe organize the rescue work?**
(He rounded up lifeboats and tied five together. Then, he dispersed passengers from one boat into the other four so he could have an empty boat to go back and pick up people in the water.)
2. **How many people did Lowe rescue by returning to the area?**
(He rescued four people.)
3. **Why didn't other boats go back?**
(They were afraid of being swamped and capsizing.)
4. **Altogether, how many people were picked up by Lowe and lifeboats nearby?**
(A total of 13 people were picked up.)
5. **What was unusual about the night sky?**
(There were a lot of shooting stars.)
6. **What brought people out of their trances?**
(Officer Boxhall firing off green flares.)
7. **What was the aftermath being compared to?**
(It reminded many people of a picnic.)
8. **What were the handkerchiefs used for?**
(They were placed on heads as caps.)
9. **How did the mood change as the night went on?**
(A lot of squabbling and bickering began.)
10. **What were many of the arguments about?**
(Many people argued about smoking.)
11. **What did the men on collapsible B talk about most?**
(The talked about getting rescued.)
12. **Who was the one person still alive in the water at 3:30 a.m.?**
(Chief Baker Charles Joughin was still alive and treading water.)
13. **What signaled the people that a ship was coming?**
(A cannon was fired causing a flash and a boom.)
14. **How did the mood change then?**
(There were cheers and yells of relief.)



CHAPTER IX: "We're Going North Like Hell"

1. What was the *Carpathia's* original voyage route before changing course?
(It was traveling from New York to the Mediterranean.)
2. How did the *Carpathia's* passengers know something was wrong?
(There was activity after midnight. The engines were pounding harder and faster than usual.)
3. What was the estimated amount of time the *Carpathia* needed to reach the *Titanic*?
(They estimated four hours.)
4. What were the *Carpathia's* passengers doing while the crew organized rescue operations?
(They lay asleep in their cabins.)
5. When did the *Carpathia's* crew think they saw the green flares?
(At 2:35 a.m. they thought they spotted them.)
6. What was the general feeling among the *Carpathia's* crew as they sped to the *Titanic's* rescue?
(There was a lot of excitement.)
7. When did the *Carpathia* arrive at the scene?
(It was 4:00 a.m. when they arrived.)
8. How wide was the area where the lifeboats were scattered?
(The lifeboats were scattered throughout a four mile area.)
9. What was so astonishing to the *Carpathia's* passengers?
(The flat, unbroken ice field as far as the eye could see.)
10. At 5:40 a.m., when the *Californian's* crew first heard about the *Titanic*, what did they do?
(They started their engines and headed for the *Titanic's* last position.)

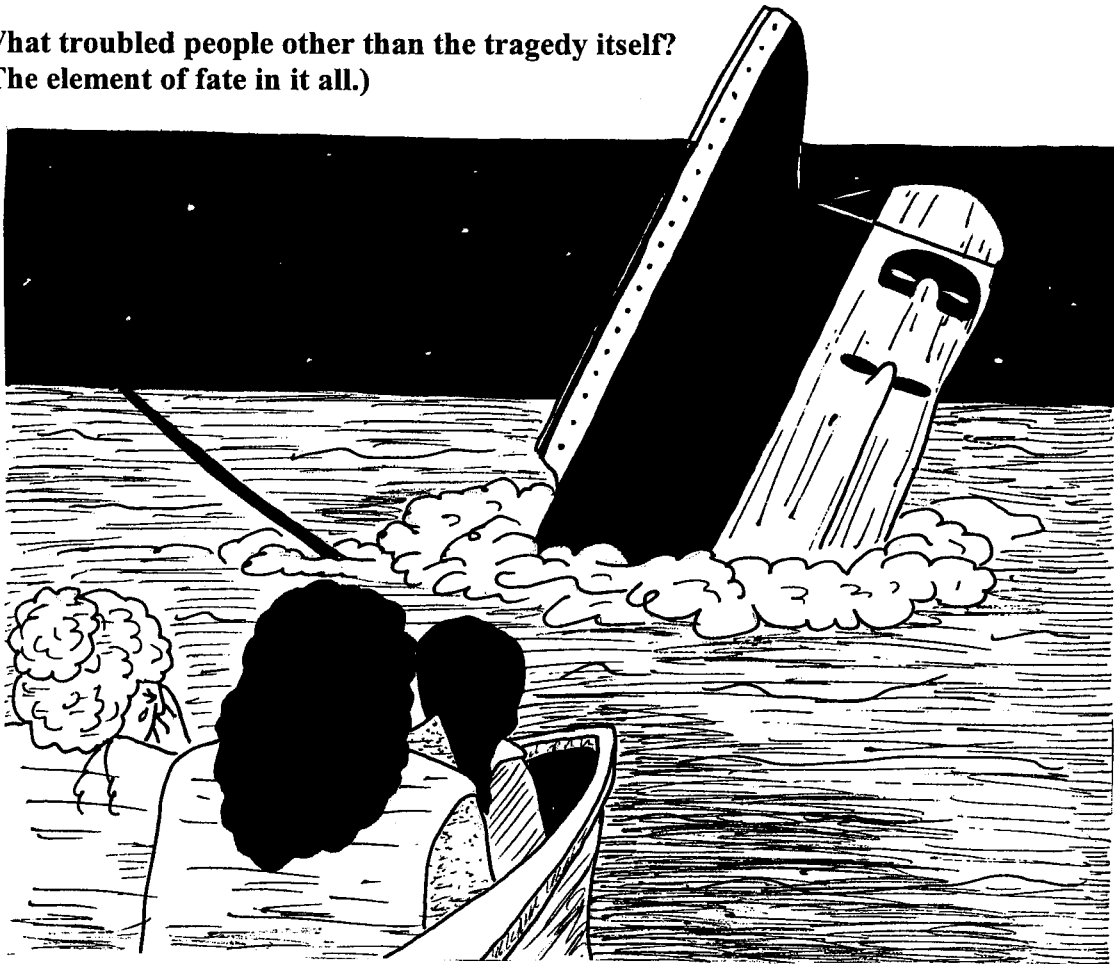




CHAPTER X: "Go Away - We Have Just Seen Our Husbands Drown"

1. What were the survivors doing as they were rowing toward the *Carpathia*?
(There were whoops and yells of relief, singing, organized cheers, as well as silence by some.)
2. How far away did *Carpathia* stop from the farthest lifeboat?
(The farthest lifeboat had to row about four miles.)
3. What time was it when lifeboat #12 finished loading collapsible B on and shoved off toward the *Carpathia*?
(It was 6:30 a.m.)
4. How was Lowe different from the other men?
(He was both a boatman and a seaman.)
5. What condition were the people in collapsible A in?
(Since the sides of the boat had not been raised, people were standing in water up to their knees. They were making no headway.)
6. How did the passengers transfer on to the *Carpathia*?
(They climbed a rope ladder or sat in a rope sling.)
7. What did Ismay ask for when he got on board the *Carpathia*?
(He asked for a room where he could be quiet.)
8. What happened to Ismay after the trip?
(He retired from White Star Lines, moved to a large estate on the west coast of Ireland, and was a recluse until he died in 1937.)
9. What was strangest of all during the unloading?
(The silence was very strange.)
10. When did the last boat reach the *Carpathia*?
(Lifeboat #12 reached the *Carpathia* at 8:30 a.m.)
11. Why didn't the *Carpathia* transfer the passengers to the *Olympic*?
(The Captain didn't want to subject them to another transfer at sea, especially to the sister ship of the *Titanic*. For some passengers, it would be like seeing a ghost.)
12. What did Captain Rostron want to do before heading for New York?
(He wanted to have a brief funeral service.)
13. When did the New York office of the White Star Lines receive confirmation that the *Titanic* had sunk?
(The office was not certain until notification came at 6:15 p.m.)

14. When did the office pass the information on to the public?
(They made the announcement at 7:00 p.m.)
15. Why had there been so many false headlines about the incident?
(The newspapers couldn't get any information because the *Carpathia* was only using their wireless for official traffic and personal messages from survivors. Therefore, they made up stories for their papers.)
16. Approximately how many people were waiting for the *Carpathia* when it arrived at the New York pier?
(Over 40,000 people were awaiting its arrival.)
17. What happened to the *Titanic's* lifeboats?
(They were picked clean for souvenirs. The *Titanic* name was sandpapered off of them.)
18. Why didn't the survivors clarify the events?
(Many added their own myths and fables. Some got carried away by excitement and made a good story even better. Others were too shocked or ashamed to explain the events very well.)
19. How did the Register list the survivors?
(Next to the survivors name read "Arrived Titan - Carpath, April 18, 1912.")
20. What troubled people other than the tragedy itself?
(The element of fate in it all.)

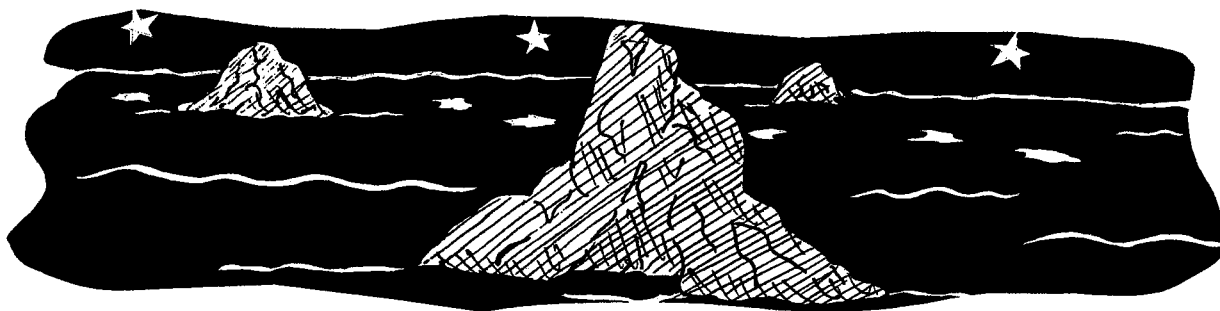




CHAPTER I: "Another Belfast Trip"

Name: _____

1. What was so unusual about the Atlantic Ocean that night?
2. How many days into the Maiden Voyage are they when this book begins?
3. What was Frederick Fleet's duty?
4. How fast was the *Titanic* going around 11:40 p.m.?
5. What signal did Fleet give to warn the bridge of danger ahead?
6. How much time passed before the *Titanic* reached the iceberg?
7. How far above the water did the iceberg tower?
8. What was the time-honored pastime of off-duty stewards?
9. Who was J. Bruce Ismay?
10. What two orders did First Officer William Murdoch give to avoid colliding with the iceberg?
11. Why was the *Californian* stopped?
12. Why did it appear to the *Californian* that the *Titanic* had put out all its lights?





CHAPTER II: "There's Talk of an Iceberg, Ma'am"

Name: _____

1. What caused the passengers to stir?
2. How did the passengers respond to the collision at first?
3. Where did tonnes of ice fall on to the *Titanic*?
4. What did some of the passengers collect as temporary souvenirs?
5. How did passengers and crew feel about Captain Smith?
6. Who was Thomas Andrews?
7. What was happening when the boat was "listing"?
8. How many of the 16 compartments were flooded upon inspection?
9. How many compartments, at most, could be flooded without the *Titanic* sinking?
10. What was Captain Smith planning to do after this voyage?
11. What time did Captain Smith order the lifeboats uncovered and the passengers mustered?
12. Who are Bride and Phillips?
13. What does "CQD MGY" mean?
14. Why didn't the *Californian* receive the message?



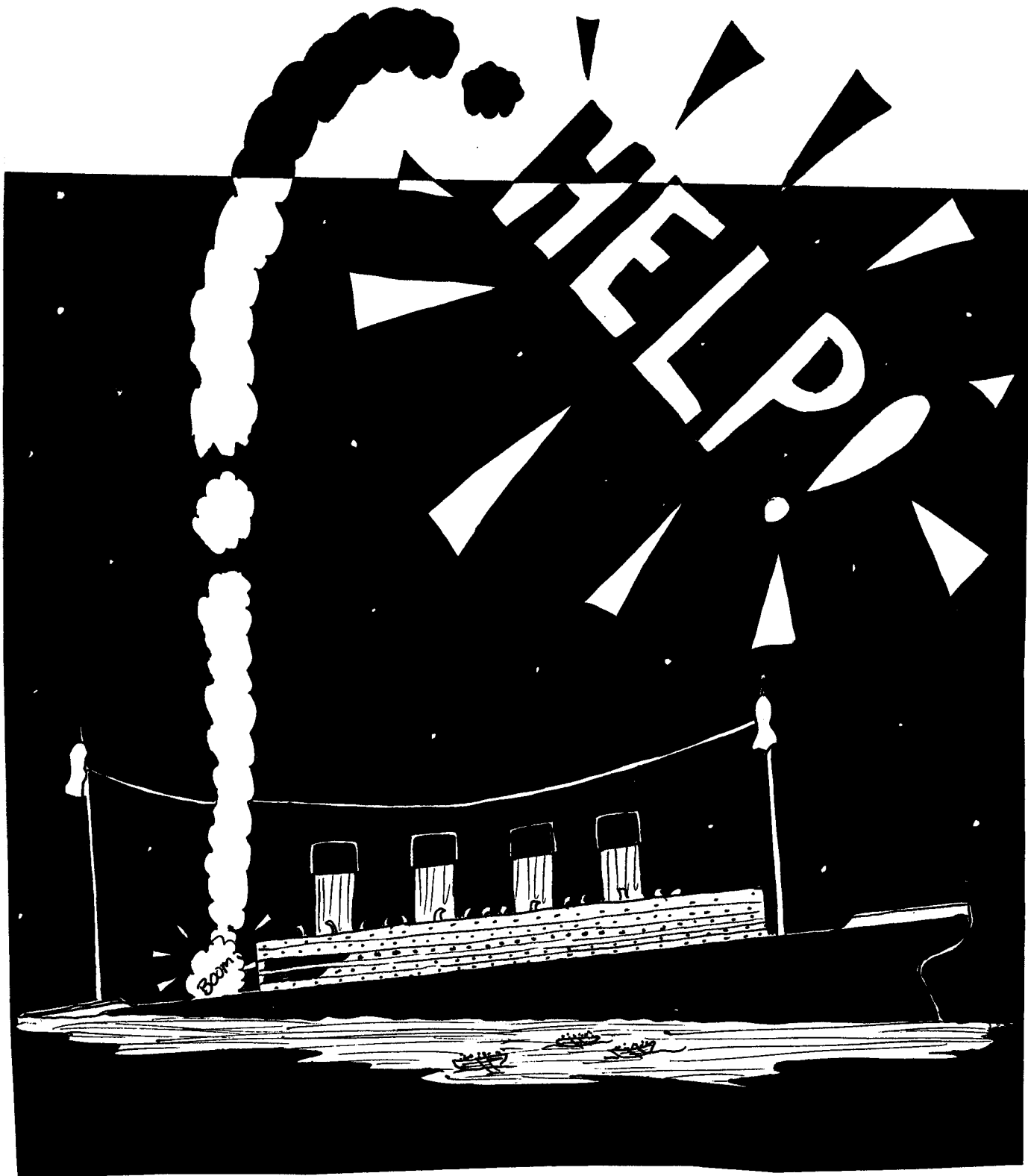
CHAPTER III: "God Himself Could Not Sink This Ship"

Name: _____

1. How did the crew react to the warning at first?
2. How was the warning passed throughout the ship?
3. How did the stewards alert the first class passengers differently from the second class passengers?
4. What represented how the passengers felt about the situation?
5. What did the passengers do while waiting for the crew to get to their stations?
6. How many lifeboats were there in total and how many people fit into them?
7. What added to the confusion among the passengers?
8. What was the band playing while the boats were being loaded?
9. Describe Bruce Ismay's demeanor during the lifeboat loading?
10. What does it mean to say Ismay was "abashed"?
11. Why was Quartermaster Rowe the last one to know about the situation?
12. Describe Thomas Andrews.
13. How did the world find out about the situation?
14. What was the closest ship to respond to the *Titanic's* distress call?
15. What signal did Bride suggest for Phillips to use?

16. What did Rowe start doing at 12:45?

17. Did the *Californian* see the SOS sent by Morse lamp and the distress rockets?

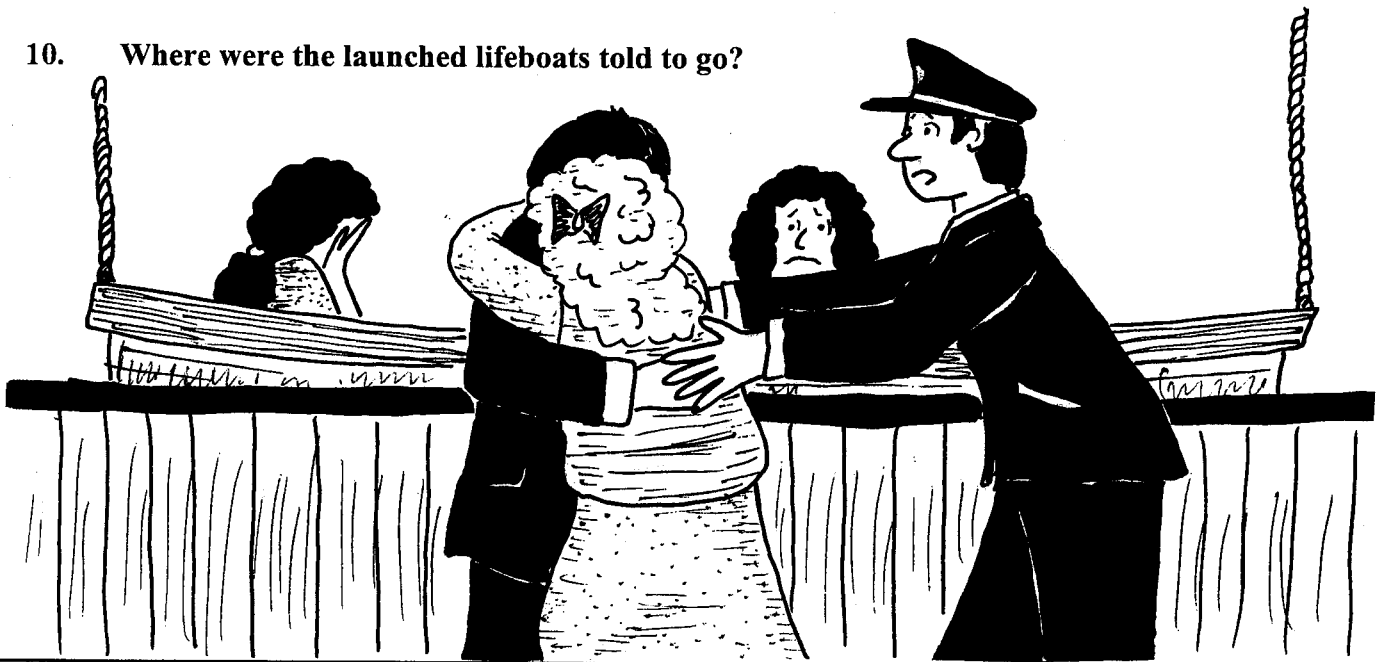




CHAPTER IV: "You Go and I'll Stay A While"

Name: _____

1. How did the husbands deal with their wives refusal to leave them?
2. What caused even the carefree passengers to grow uneasy?
3. What did the stewards do to prevent looting?
4. How did Lightoller gauge the water level?
5. What does it mean to say the pace grew "sloppier"?
6. Why were more men loaded into lifeboats on the starboard side?
7. How many seats were wasted in lifeboat #1?
8. Why was it difficult for the steward to communicate with many of the third class passengers?
9. When were the third class women and children allowed past the barriers and led up to the boat deck?
10. Where were the launched lifeboats told to go?

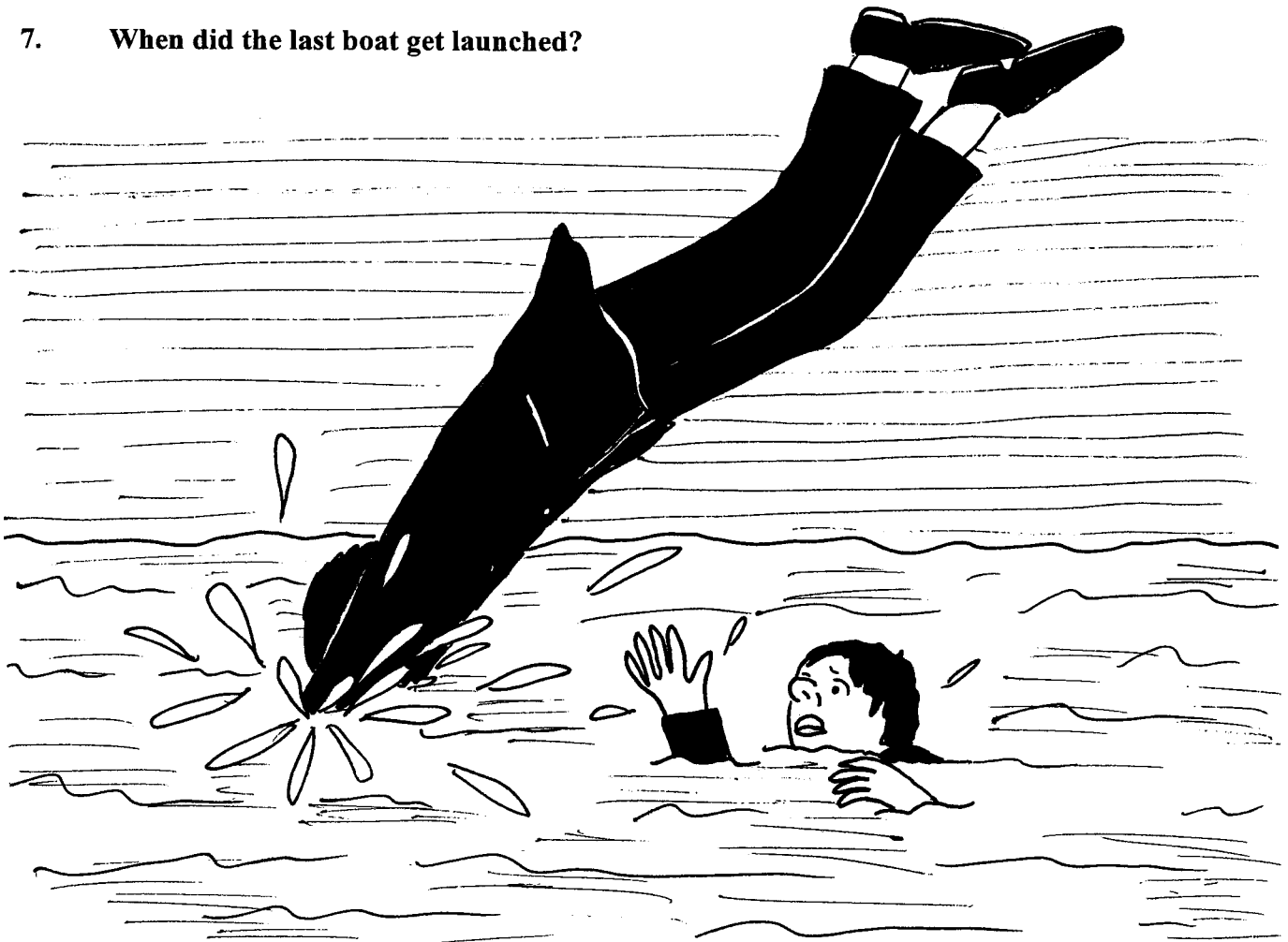


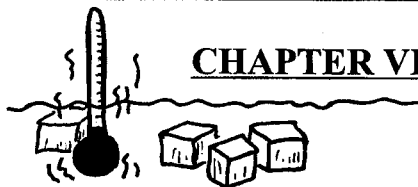


CHAPTER V: "I Believe She's Gone, Hardy"

Name: _____

1. Why was Phillips frustrated with the other ships?
2. Why did everyone on board move to the starboard side?
3. How was Daniel Buckley allowed to remain in a lifeboat?
4. What was done by the crew to ensure that men wouldn't rush the lifeboats?
5. When was the *Titanic* due into New York, according to Ismay?
6. When loading the last boat, how did the crew keep out the men?
7. When did the last boat get launched?





CHAPTER VI: "That's The Way Of It At This Kind Of Time"

Name: _____

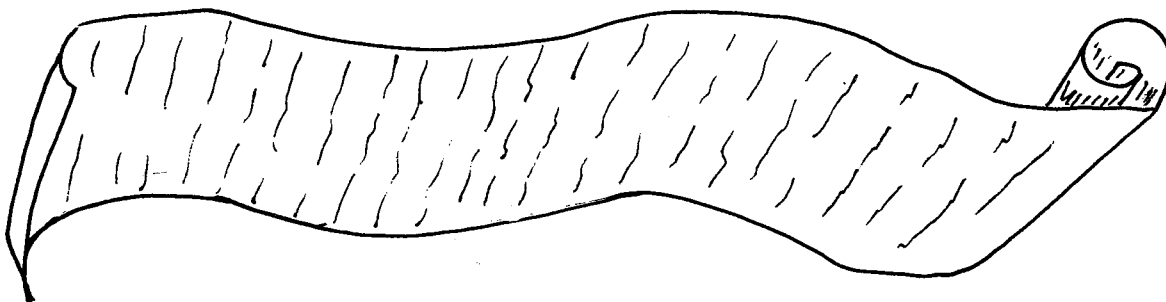
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3. What time were the third class passengers (who were not part of the two groups led up earlier) allowed past the gates to find the boat deck on their own?
4. Where was Thomas Andrews at 2:10 a.m.?
5. How much did the temperature drop from 7:00 p.m. to 10:00 p.m.?
6. What temperature was the sea at 10:30 p.m.?
7. How did Phillips respond to the *Californian's* message at 11:00?
8. What type of song was the band playing at 2:15 a.m.?
9. Since collapsibles A & B could not be launched, how did they reach the sea?
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Name: _____

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CHAPTER VIII: "It Reminds Me Of A Bloomin' Picnic"



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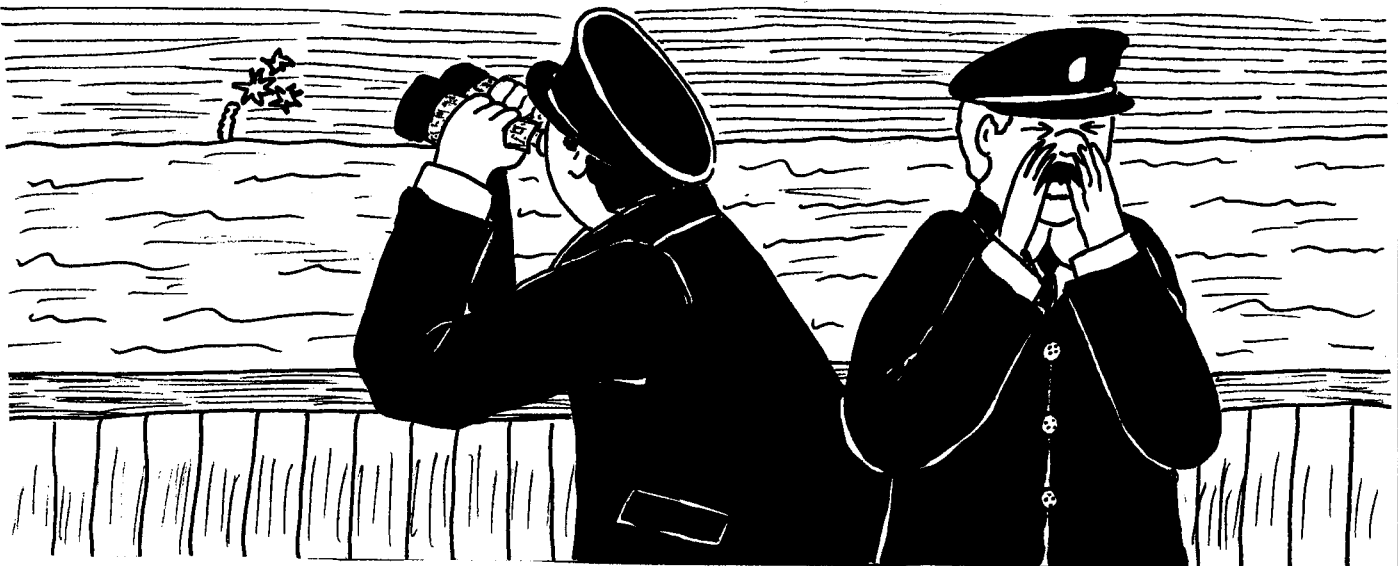
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7. What was the aftermath being compared to?
8. What were the handkerchiefs used for?
9. How did the mood change as the night went on?
10. What were many of the arguments about?
11. What did the men on collapsible B talk about most?
12. Who was the one person still alive in the water at 3:30 a.m.?
13. What signaled the people that a ship was coming?
14. How did the mood change then?



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Name: _____

1. What was the *Carpathia's* original voyage route before changing course?
2. How did the *Carpathia's* passengers know something was wrong?
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7. When did the *Carpathia* arrive at the scene?
8. How wide was the area where the lifeboats were scattered?
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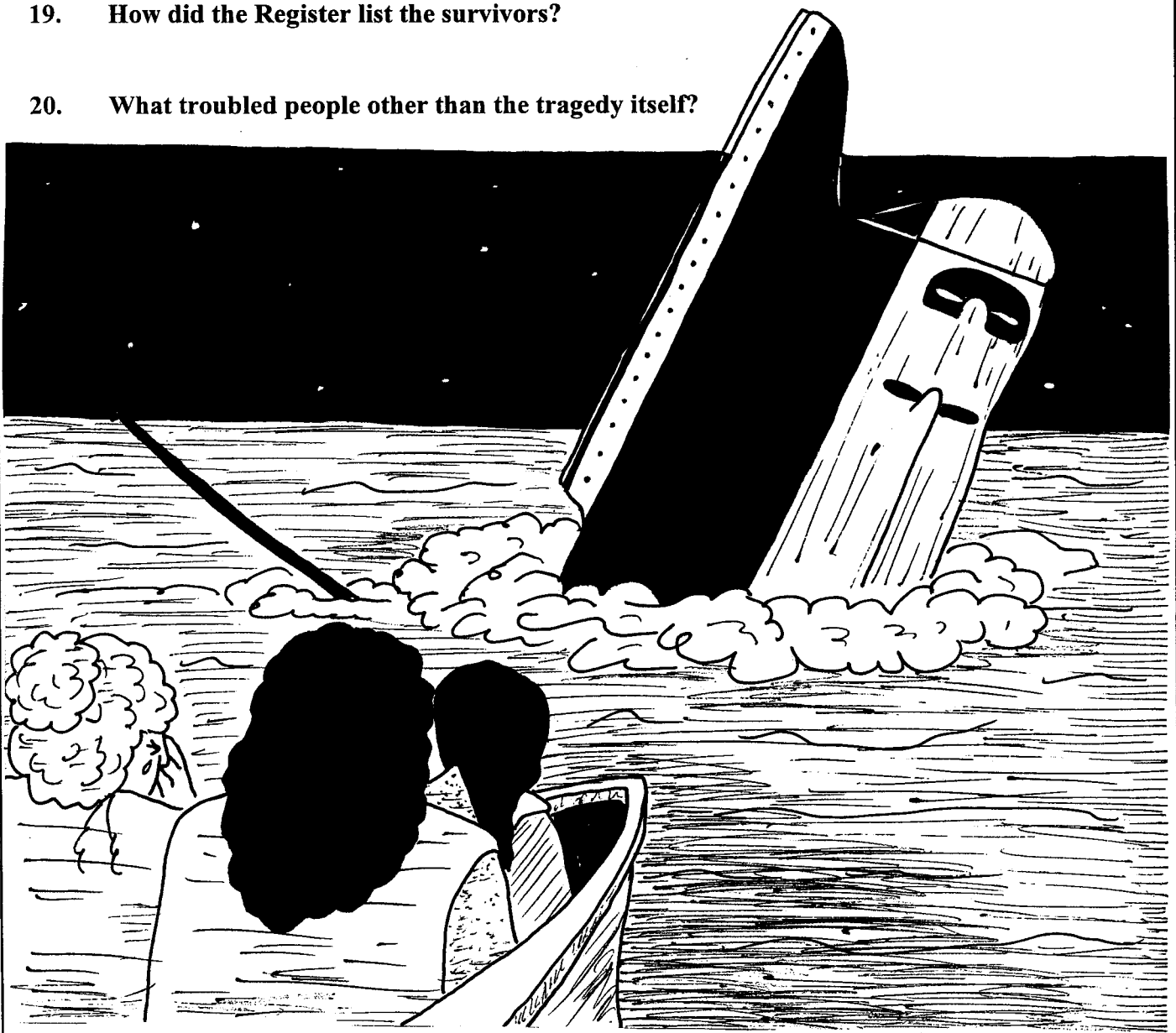


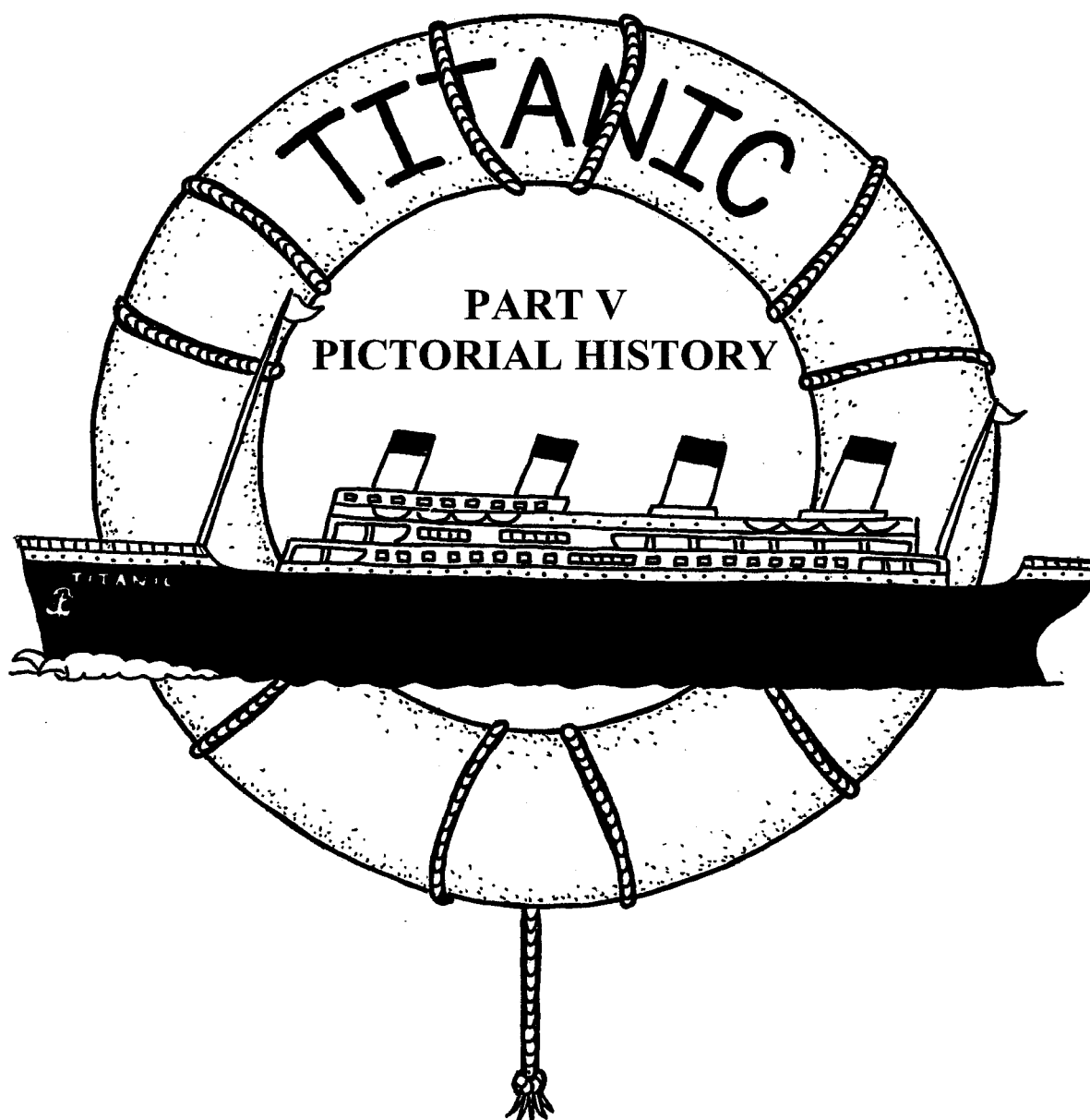
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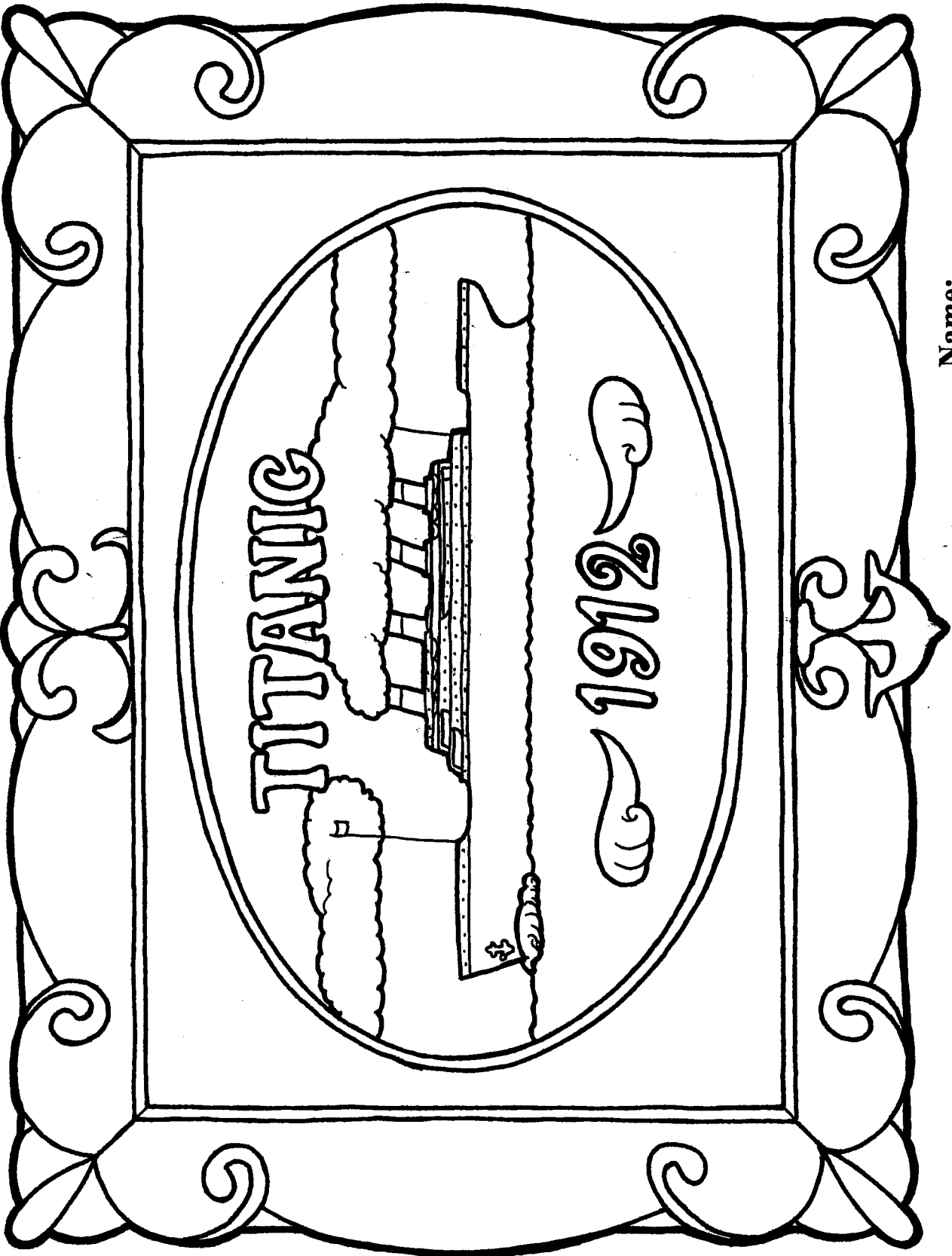
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5. What condition were the people in collapsible A in?
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7. What did Ismay ask for when he got on board the *Carpathia*?
8. What happened to Ismay after the trip?
9. What was strangest of all during the unloading?
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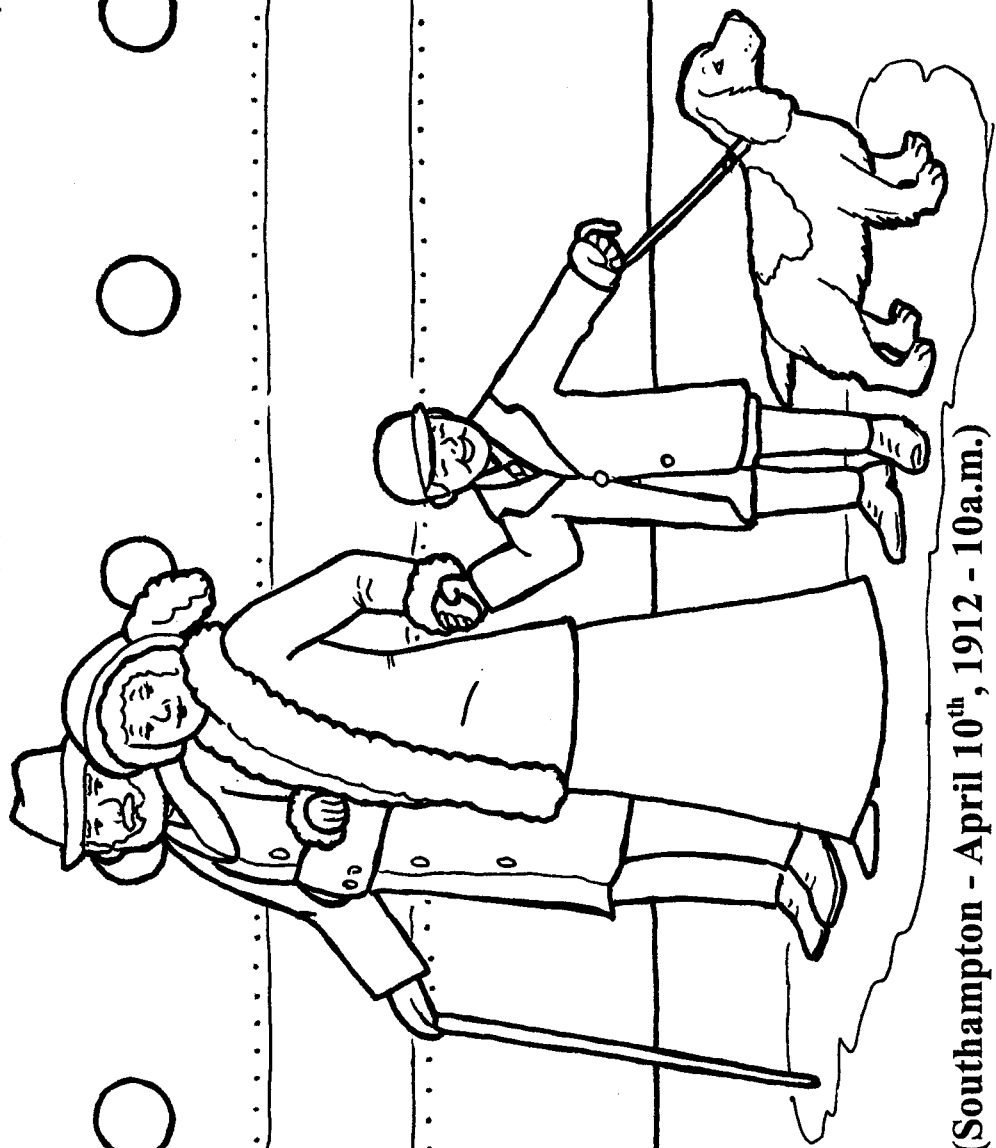
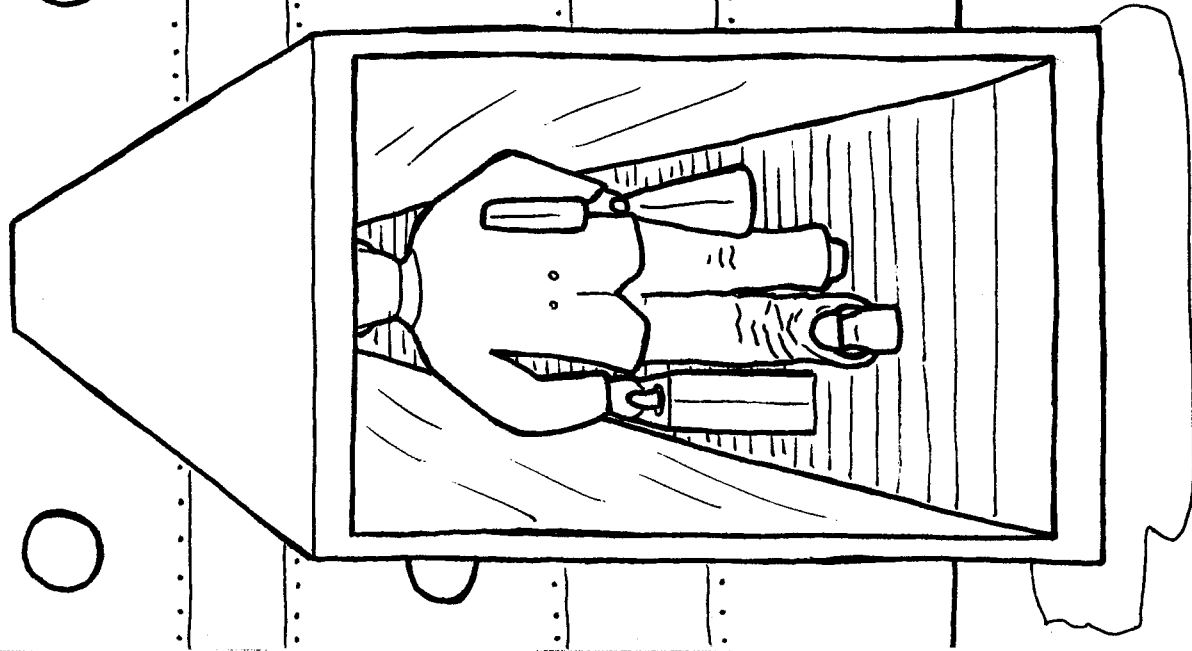




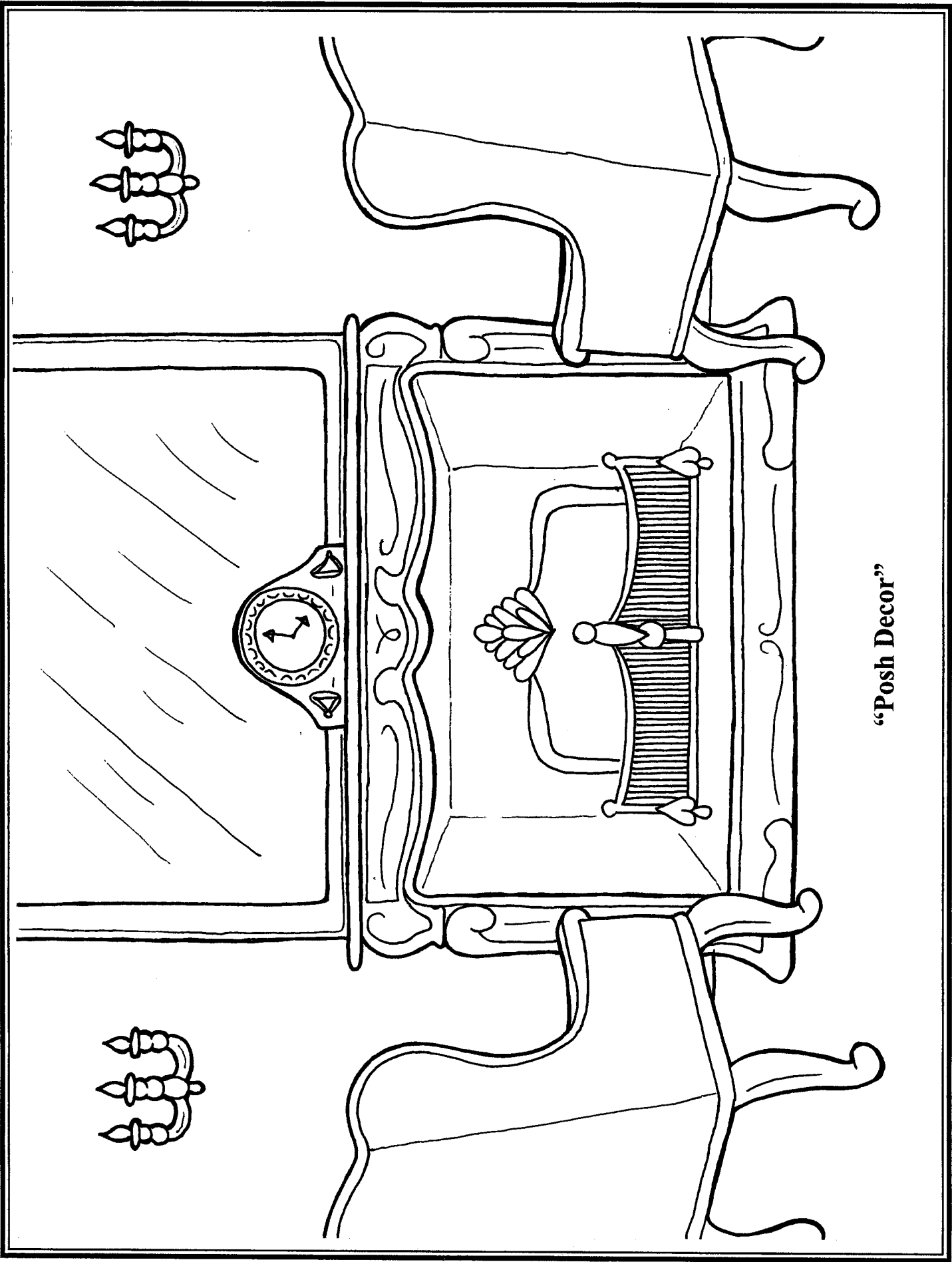
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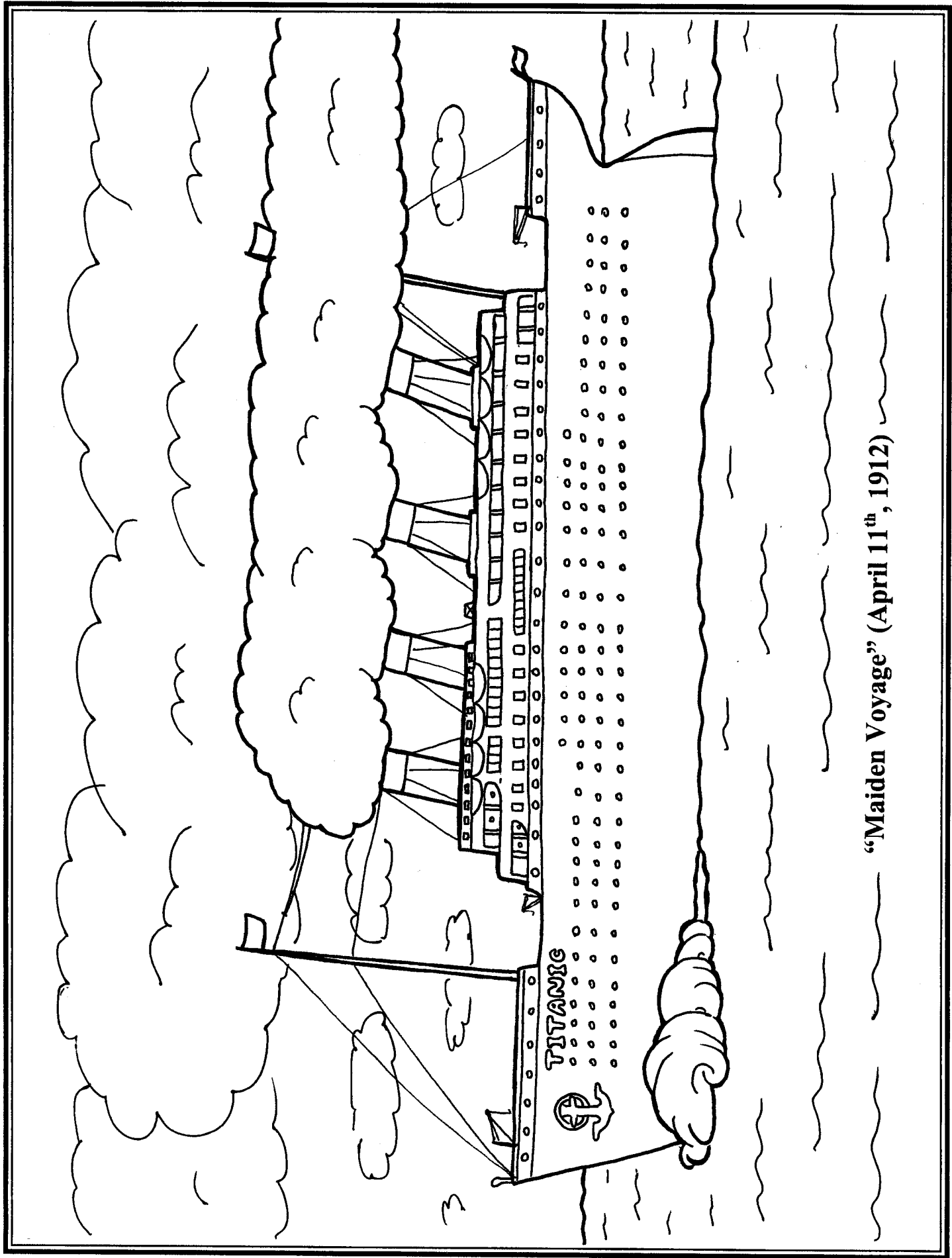
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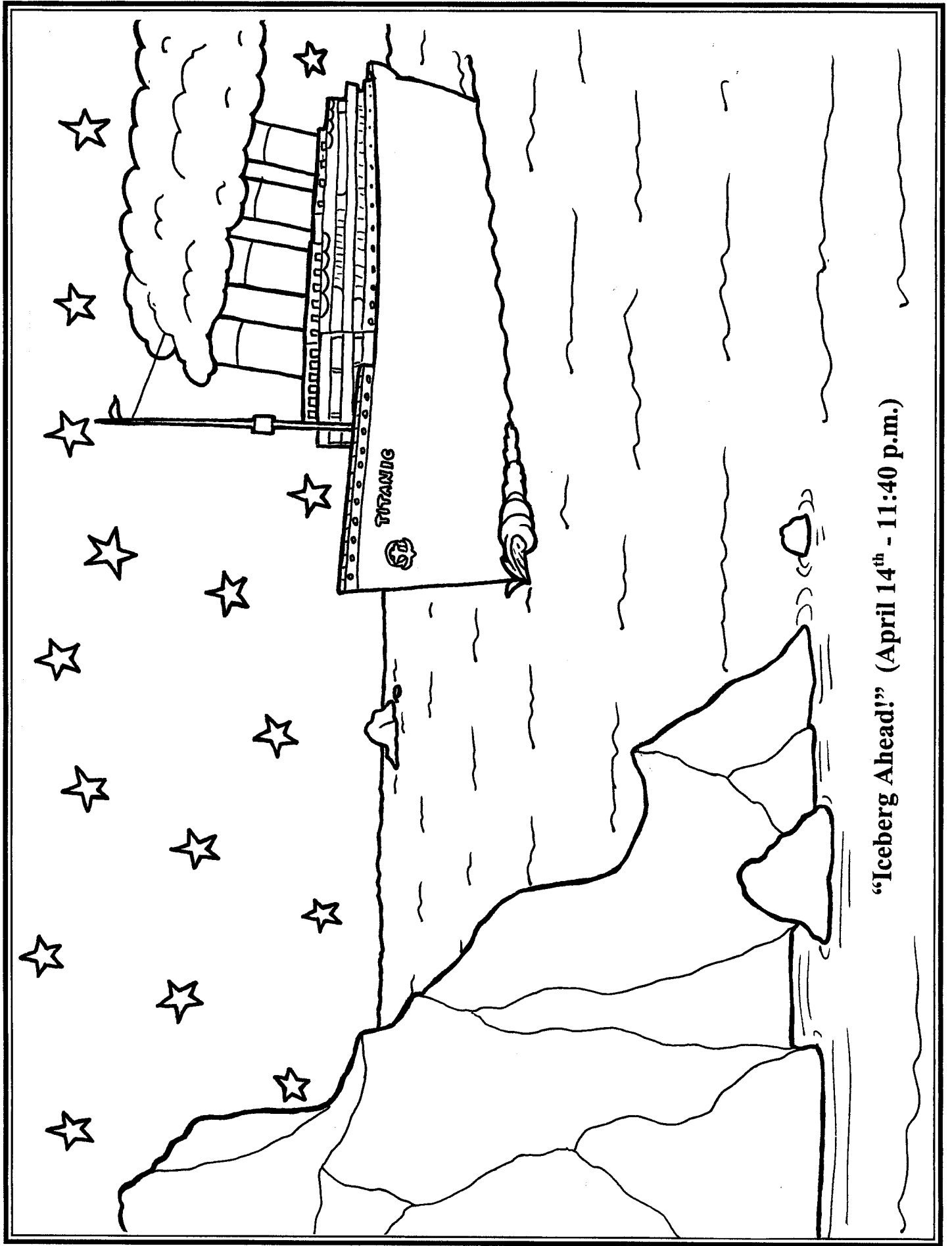
"All Aboard" (Southampton - April 10th, 1912 - 10a.m.)



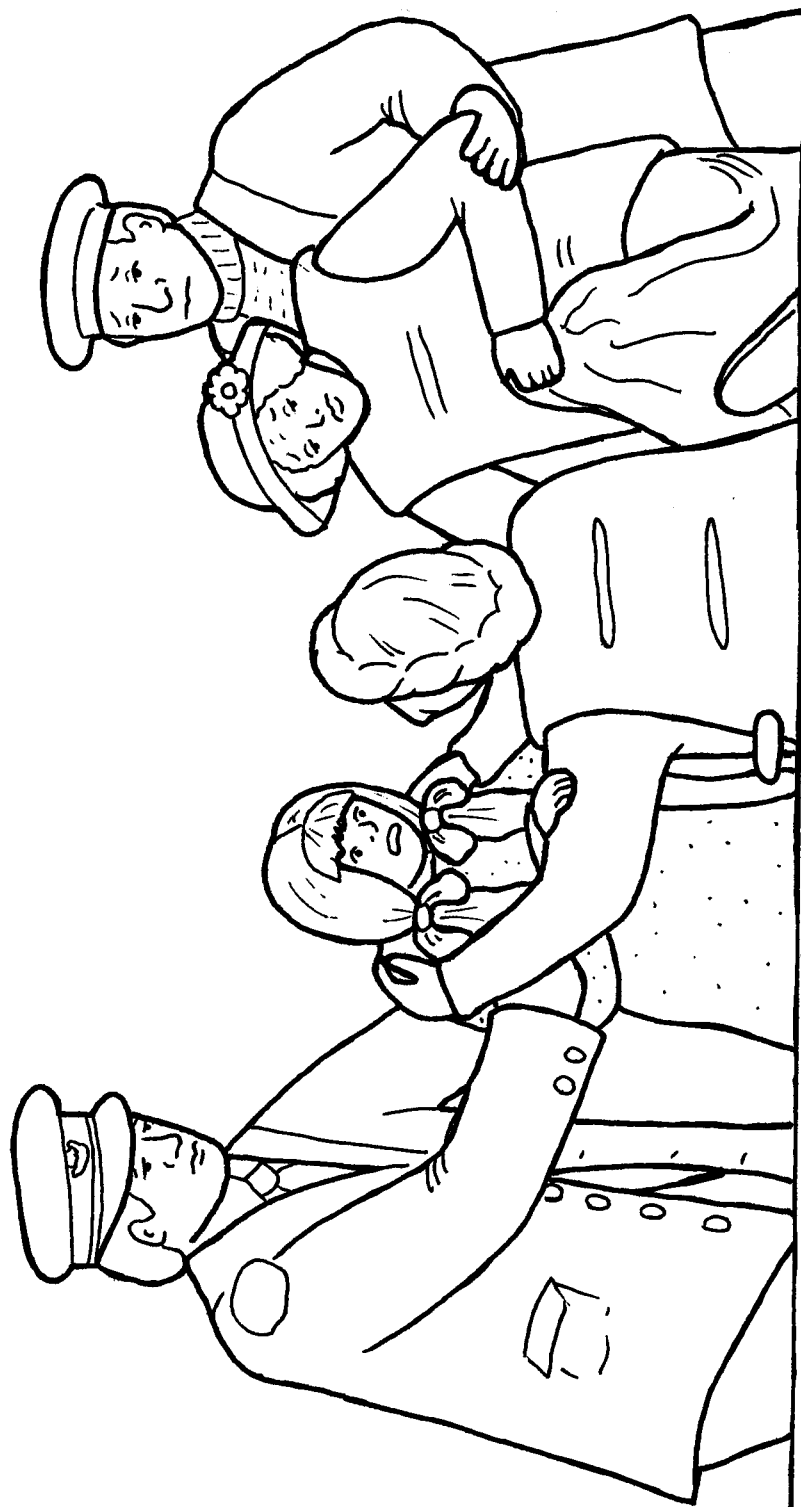
"Posh Decor"



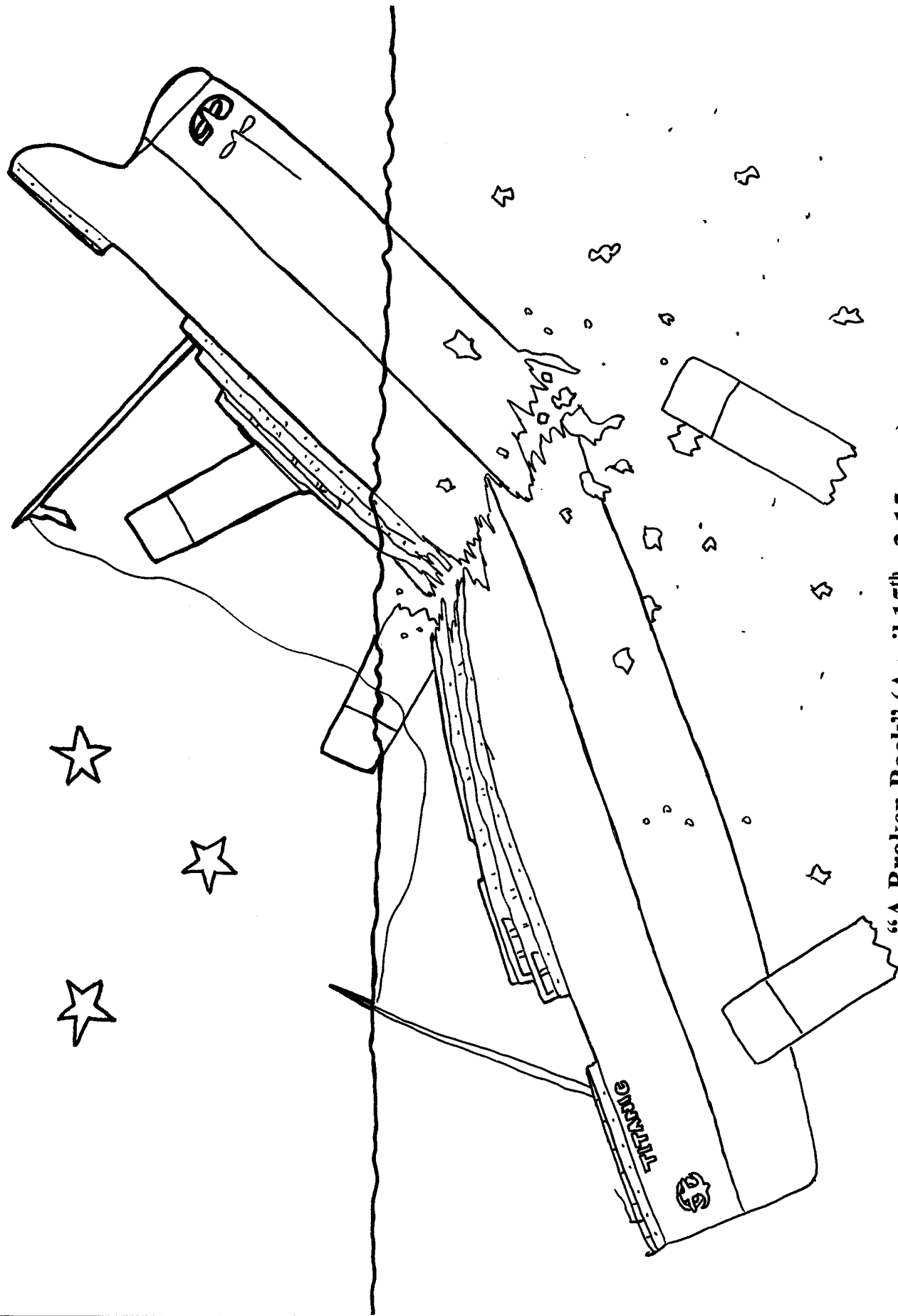
“Maiden Voyage” (April 11th, 1912)



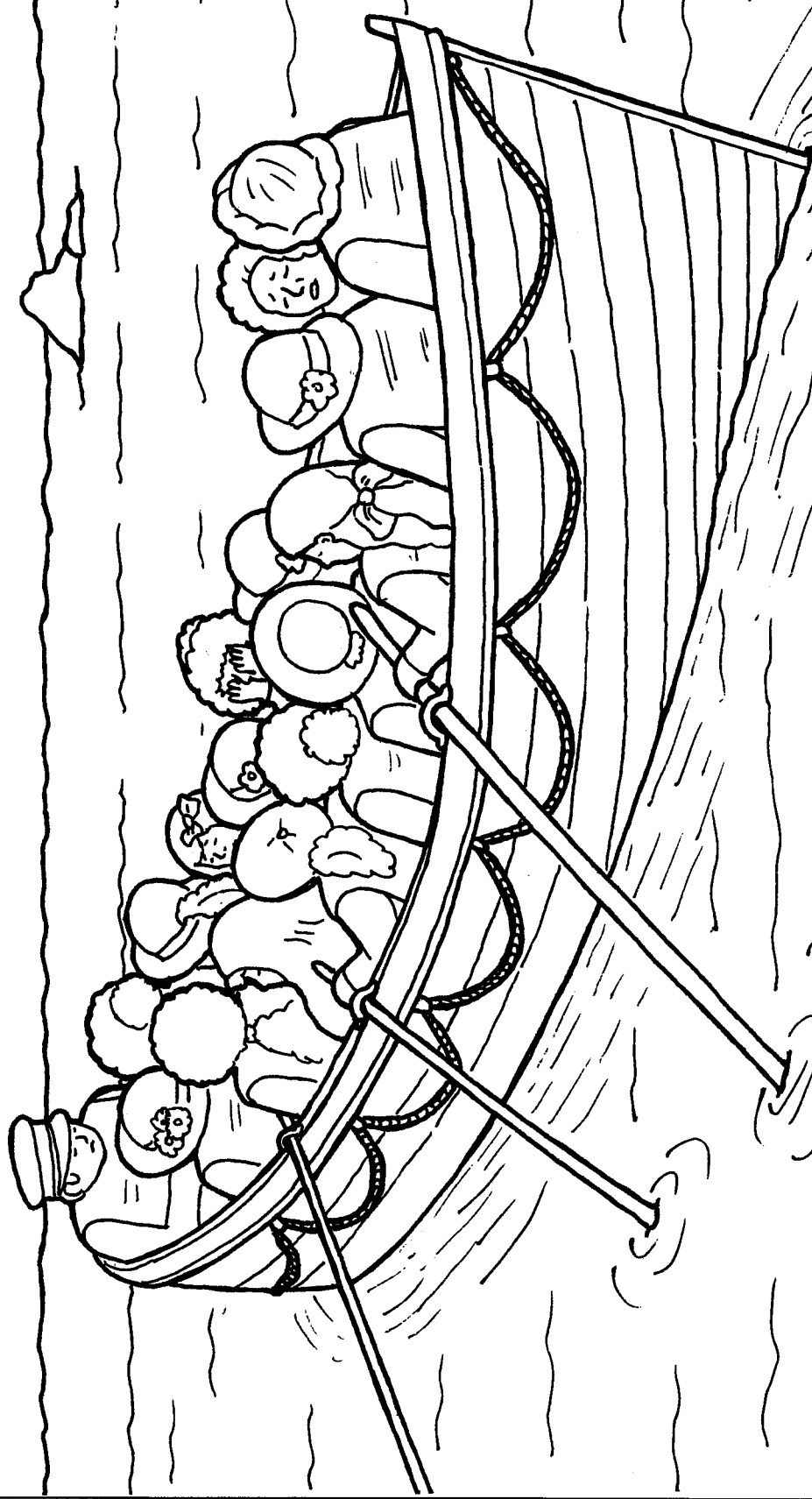
“Iceberg Ahead!” (April 14th - 11:40 p.m.)



“Women And Children First” (April 15th - 12:25 a.m.)



"A Broken Back" (April 15th - 2:15 a.m.)



“The Survivors”

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