

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 Titanic | 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 |

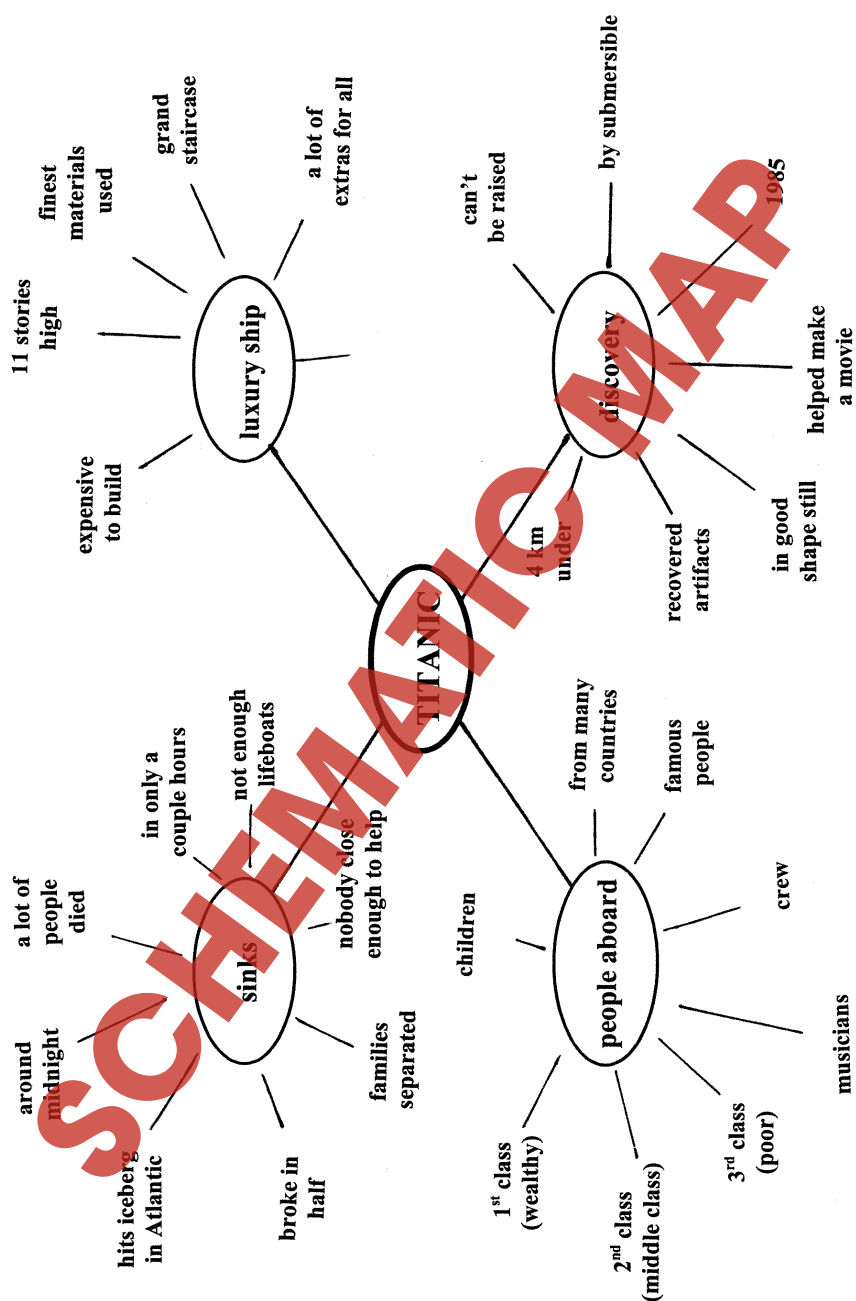
PART III - LIVING MUSEUM

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 - PICTORIAL HISTORY

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

SAMPLE



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.

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.



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

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,

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

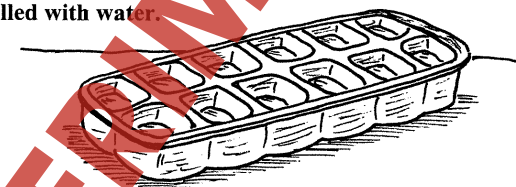
- The *Titanic* was completed in 1912. How many years ago was this?
- When the *Titanic* was launched, it took 21,000 kilograms of grease, oil, and soap to help slide it into the water. If a wheelbarrow can hold 15 kilograms, how many wheelbarrow loads of grease, oil and soap were needed?
- The price 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*?
- 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)
- The *Titanic* could reach nearly 25 knots at maximum speed. How fast could it travel in kilometers per hour?

BUOYANCY EXPERIMENT

Name: _____

Steps:

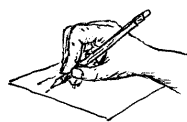
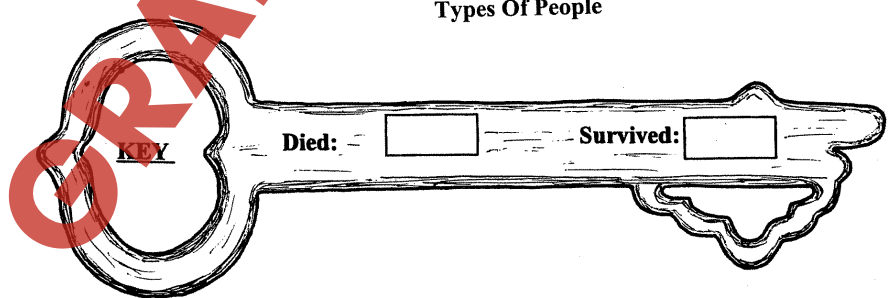
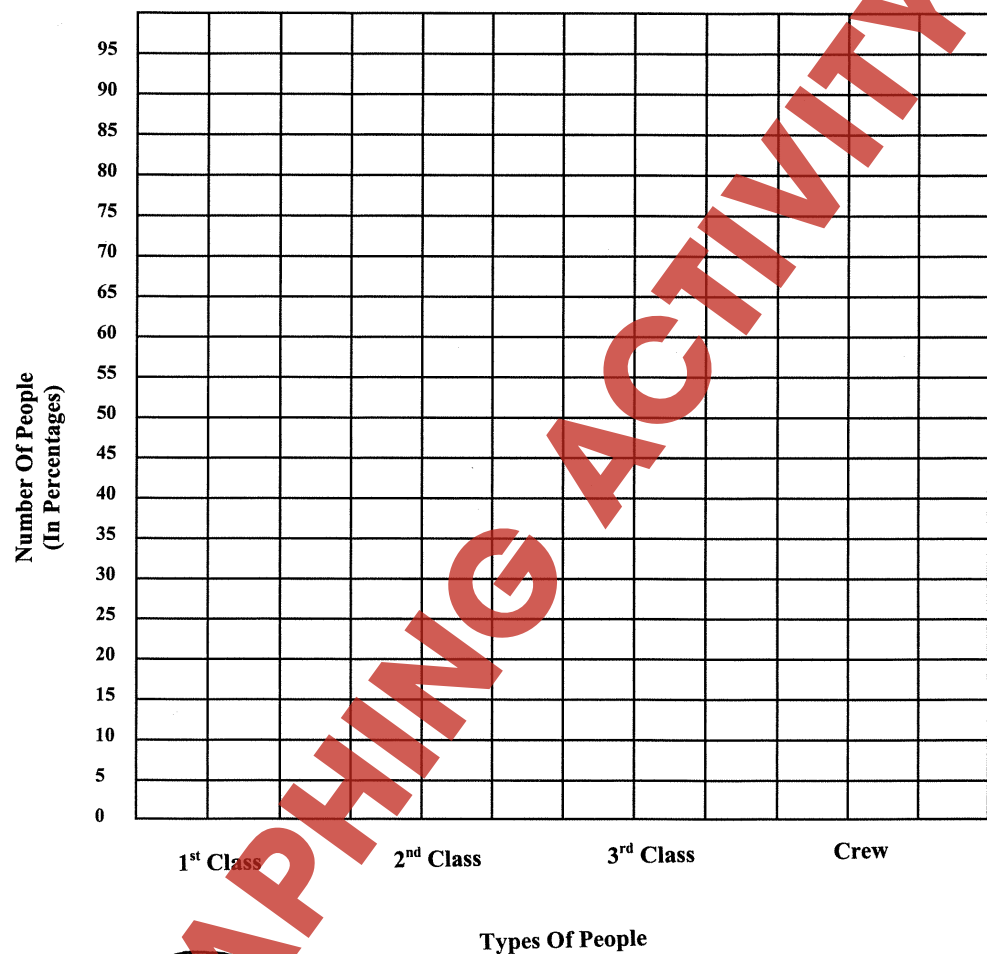
- Read through all of the steps before beginning the experiment.
- Gather your materials: plastic icecube tray, sink, tub or large container (bigger than the icecube tray), water
- Fill the container with at least 20 centimeters of water.
- Place the icecube tray on top of the water, with the open sections facing upward. The tray is buoyant (floating) on the water, similar to how a ship floats on water.
- 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.
- Observe how the water fills one section of the tray, but the tray stays buoyant.
- 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:

- Define buoyancy. _____
- Why did the icecube tray stay buoyant when the water filled the first section? _____
- Describe how the position of the icecube tray changed as water filled more sections? _____
- How many sections filled with water before the icecube tray sank? _____
- What caused the icecube tray to sink? _____
- What did this experiment teach you about how the *Titanic* sank? _____

TITANIC VICTIMS VS. SURVIVORS
(Double Bar Graph)



HISTORICAL RELIC OR GRAVEYARD?

Name: _____

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?**

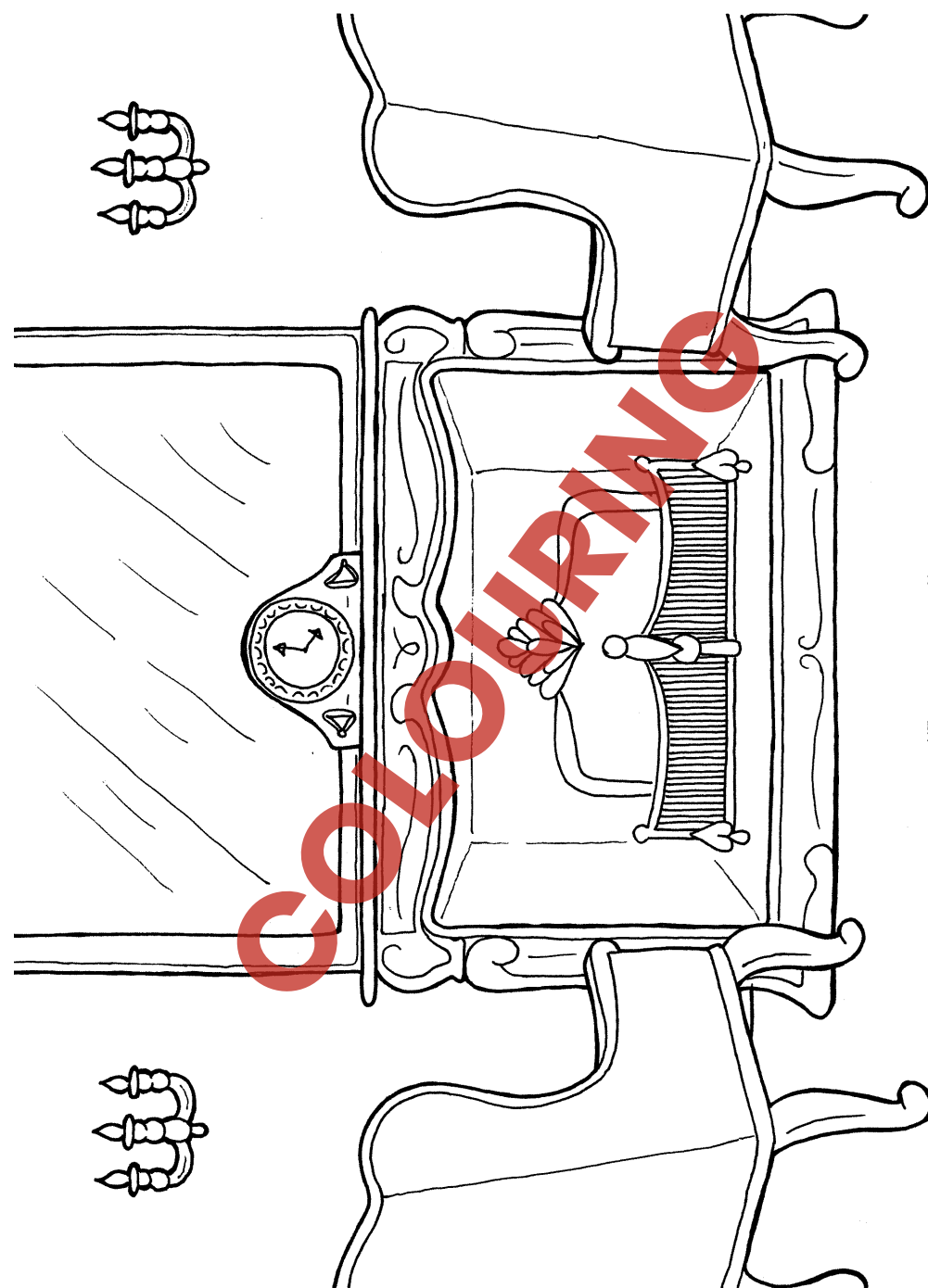
PART III - LIVING MUSEUM (MAJOR PROJECT)

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".



"Posh Decor"

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: _____

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ANSWER KEY