

TITANIC INTEGRATED

VELS links

The following activities have been designed for VELS discipline based learning at levels 4-6 in the domains of English, Humanities, Geography and History.

The activities are also relevant to the domains of:

- Physical Social and *Titanic* Personal Learning levels 4-6.
- Interpersonal Learning, Personal Learning, Civics and Citizenship levels 4-6.
- Interdisciplinary Learning levels 4-6.
- Communication, ICT, Thinking Processes levels 4-6.

Notes to the teacher

The following activities are based on the e5 Instructional Model that provides a structure for activities to ensure that students engage with, explore, explain, elaborate and evaluate information and knowledge about themes and issues relating to *Titanic*. These activities should be modified to match your students' abilities, interests and area of study.

Activities included

1. CSI *Titanic*: who died and how?
2. "Iceberg right ahead": using quotes from *Titanic*.
3. *Titanic* online and interactive activities.
4. *Titanic*: recovery and conservation.
5. *Titanic* photo and image analysis: using pictures to read the past.
6. *Titanic* and Geography.
7. *Titanic* in numbers: Maths activities.
8. *Titanic* size.
9. *Titanic* ship design.
10. Australian stories.



CSI TITANIC: WHO DIED AND HOW?

Teacher notes

VELS links

English, History and Geography at Level 5 and above.

CSI Titanic: who died and how?

The sinking of *Titanic* was one of the worst peacetime maritime disasters of all time. More than 1500 people died in its sinking. During this activity students will think about ways in which passengers and crew may have reacted in the disaster and the circumstances in which they may have died. Students are encouraged to use their imaginations to think about the sinking of *Titanic*.

Please note that this activity focuses on causes of death in the *Titanic* disaster. CSI refers to Crime Scene Investigation, a popular television series from the US, in which crime scenes are analysed and reconstructed to determine what happened.

Resources

Access the article 'CSI *Titanic*: Who died how?' by Luke Owens (2007). This could be printed or allow students to access it using the Internet. http://www.encyclopedia-Titanica.org/csi_Titanic_who_died_how.html

Learning outcomes:

Students will:

- Develop an ability to interpret historical sources.
- Gain an understanding of the strengths and limitations of various historical sources.
- Use their imagination and deep thinking skills to make predictions.
- Make judgements based on the facts available to them.
- Work in teams and individually.

Web links

Information as well as passenger perspectives and experiences on *Titanic*.

<http://www.discovery.com> (Type in 'Titanic' in search engine)

BBC interviews with survivors of passenger and crew survivors (transcripts available as part of the *Tales of Titanic Education Kit*). <http://www.bbc.co.uk/archive/titanic/>

Causes of death of passengers and crew (including deaths after the sinking).

<http://www.encyclopedia-Titanica.org/titanic-passenger-crew-cause-of-death/>

Information about passengers and crew including photos and biographies.

<http://www.encyclopedia-Titanica.org/>

Online article: The morning after...where were the bodies? Jan C Nielson (2002).

<http://www.encyclopedia-Titanica.org/Titanic-where-were-the-bodies.html>





CSI *Titanic*: who died and how?

Student instructions

“The sounds of people drowning are something that I cannot describe to you and neither can anyone else. It’s the most dreadful sound and there is a terrible silence that follows it.”

— Eva Hart, *Titanic* Survivor.

When *Titanic* sank in the Atlantic Ocean, over 1500 people died, making it one of the most deadly peacetime maritime disasters in history. Let’s spend some time becoming experts and think about how people may have died during the disaster.

Task 1: What do we know? What do we want to find out?

Think

- What do you already know about the *Titanic* disaster?
- What images come to mind when you think about the Ship sinking?
- What things about the story interest you?
- How does the quote from Eva Hart make you feel?

Write and Share

- Write down your responses to the above questions.
- Share your responses with a classmate then compile your responses with the rest of the class.

Compare and discuss your responses in relation to other student responses.

How can we find out?

How can we possibly gain an understanding of *how many* people may have died on *Titanic* and how they may have died? What sources can we rely on? What are the potential problems with these sources?

As a class discuss these questions and create a class response.

Task 2: What do we think?

Let’s think about what was happening on *Titanic* as it was sinking.

- What do we know about what people were doing as the Ship was sinking?
- Where could we find out more about people’s actions as *Titanic* was sinking?
- What happened to *Titanic* as it was sinking?
- How long did it take *Titanic* to sink?

Next, let’s think about *how* people may have died on *Titanic* and where these deaths may have occurred.

In pairs complete the following table. **Submit** your answers to the teacher and then **share** your answers with the class.

Potential Cause of death	Possible location of death
Hypothermia	In the icy cold Atlantic, on a life boat, on <i>Carpathia</i> after being rescued.

Task 3: Let's confirm

Read the article *CSI Titanic: Who died How?*

http://www.encyclopedia-Titanica.org/csi_Titanic_who_died_how.html

Passenger Numbers

- What reasons does the author provide for the reported differences in the number of passengers and crew?
- Which reasons do you think are the most likely to explain the differences in numbers reported?

Causes and location of death

- What were the eight most common causes of death stated in the article?
- Summarise each cause of death and state where it may have occurred.
- Are there causes of death that you did not include in your response earlier?
- In your opinion which causes of death are the least/most awful?
- Are there any causes of death that have not been mentioned in the article that you can think of that might have occurred?

Discussion points

- Do you think as many people would have died if this disaster had happened today? Provide reasons for your answer.
- What safety procedures are different today? Think about the technology and procedures used to track passenger numbers, for example, what happens when we board an aeroplane, bus, tram or train?
- Why did so many people from 3rd Class die?
- If you were stuck on *Titanic* what would you have done?
- What could have been done to avoid the high number of casualties?

Extension activities

You survived the *Titanic* disaster and have been approached by a newspaper reporter to give an account of your ordeal. **Write** down the questions the reporter asks you. **Write** your responses. (Note: this is an interview, so your transcript will use spoken English.)

Describe the sounds and things you saw during your final moments on *Titanic*. Include information about yourself. Were you a passenger or crew member? Did you survive? Why were you on the Ship? How did you spend your final moments?

Create a poster which includes an image of *Titanic* in the centre and annotate the diagram to show where and how people may have died.

Conduct some further research: access the following article and summarise its main points. The morning after... where were the bodies? Jan C Nielson (2002).

<http://www.encyclopedia-Titanica.org/Titanic-where-were-the-bodies.html>

Design a safety poster for *Titanic*, instructing passengers what they should do in case of an emergency.

“ICEBERG, RIGHT AHEAD”: USING QUOTES FROM *TITANIC*

Teacher notes

VELS links

English Level 4-6.

These activities allow students to develop a deeper understanding of the events before, during and after the disaster by exploring and analysing quotes from different perspectives. Students may note that people’s perspectives differ and they can investigate why this might be. See also activity *I saw it with my own eyes: Journey traces* in *Titanic* for English and Adult Learners.

Answers to the student activity: *Titanic quotes and statements: Who said it?* (page 7 of *Titanic* intergrated).

1. J. Bruce Ismay	6. Captain Smith
2. Walter Lord	7. Jack B. Thayer
3. Reverend John Harper	8. Eva Hart
4. Jack Phillips	9. Lawrence Beesley
5. Jack Phillips	10. Lawrence Beesley
	11. Anna Turja Lundi

Learning outcomes

Students will:

- develop a deeper understanding of events through the exploration of quotes and statements.
- develop empathy by exploring and analysing passenger and crew accounts.
- be aware that multiple perspectives of the same event can coexist.
- gain an understating of the importance of interviews and quotes as historical sources.

Web links

Please note: There are many sites that have quotes from *Titanic* survivors, some of which are not always accurate. Below is one site where there are quotes available.

<http://www.webTitanic.net/framequotes.html>

BBC interviews with survivors of passenger and crew survivors. Transcripts available as part of the *Tales of Titanic Education Kit*.

<http://www.bbc.co.uk/archive/titanic/>





“Iceberg, right ahead”: using quotes from *Titanic*

Student instructions

Task 1: Engage

1. What famous statements from historical events/people can you think of?
Examples: ‘Houston, we have a problem’; ‘That’s one small step for man, one giant leap for mankind’; ‘I have a dream’.
2. Work in small groups to compile a list of famous quotes or statements that you can remember. It doesn’t matter if you can’t remember who said it or the situation or context in which it was said.
3. What famous sayings from movies can you remember? Are there any sayings that you can remember from ads? Develop a class list.

Task 2: Explore and explain

1. Why do we remember quotes?
2. What purpose can quotes and statements play in the study of History?
3. What is the difference between opinion and fact in a quote?
4. Why can quotes about a similar subject differ?

Task 3: Elaborate and evaluate

1. In pairs read the quotes on the activity sheet: *Titanic quotes and statements: Who said it?* Who might have made these statements? List the clues that you used to make your decision in the final column.
2. Which quote resonates with you the most? Why? How does it make you feel?
3. What other emotions did you feel as you read the quotes? Make some notes.
4. Which quote do you want to know more about?
5. Choose one of the quotes from the table or find your own *Titanic* quote. Complete the *Quote Analysis Sheet: Explain, Elaborate and Evaluate!* Be sure that your quote is from a reliable source (include a reference).

Extension activities

1. **Find** some other quotes made about the same topic-
 - How do these quotes differ?
 - How do these quotes express a similar opinion?
 - Which quote are you more likely to believe?
2. **Imagine** you are the speaker of the quote.
 - Describe the things that you feel/see/hear/think moments before or after the quote was made.
 - Describe your typical day.
3. **Explore** some common sayings (idioms) such as “All hands on deck”, “It’s like rearranging deck chairs on *Titanic*” and “It’s just the tip of the iceberg”. Research the meanings of these sayings and their historical origins. Find some other famous everyday sayings and explain their origins and meanings.

Titanic quotes and statements: who said it?

Task: Read the quotes below. Think about who might have made these statements from the list of people below. List the clues that you used to make your decision in the final column.

J. Bruce Ismay - Director of the White Star Line, Anna Turja Lundi - *Titanic* survivor, Lawrence Beesley - *Titanic* Survivor, Jack Phillips - in reply to *Californian's* final ice warning, Walter Lord - *Titanic* historian and author, Jack Phillips - wireless operator, Reverend John Harper - before retiring for the evening, Captain Smith - possible last words, Lawrence Beesley - *Titanic* Survivor, Jack B. Thayer - *Titanic* Survivor, Eva Hart - *Titanic* Survivor.

Quote	Person	Clues
1. "Control your Irish passions, Thomas. Your uncle here tells me you proposed 64 lifeboats and he had to pull your arm to get you down to 32. Now, I will remind you just as I reminded him – these are my ships, and according to our contract, I have final say on the design. I'll not have so many little boats, as you call them, cluttering up my decks and putting fear into my passengers."		
2. "If only, so many if onlys. If only she had enough lifeboats. If only the watertight compartments had been higher. If only she had paid attention to the ice that night. If only the <i>Californian</i> did come. The 'if only' kept coming up again and again and that makes the Ship more than the experience of studying a disaster. It becomes a haunting experience to me, it's the haunting experience of 'if only'."		
3. "It will be beautiful in the morning."		
4. "Shut up! Shut up! I am busy. I am working Cape Race!"		
5. "Come at once, we have struck a berg, it's a CQD old man."		
6. "Be British boys, be British!"		
7. "The partly filled lifeboat standing by about 100 yards away never came back. Why on Earth they never came back is a mystery. How could any human being fail to heed those cries."		
8. "The sounds of people drowning are something that I cannot describe to you, and neither can anyone else. It's the most dreadful sound and there is a terrible silence that follows it."		
9. "Many brave things were done that night but none more brave than by those few men playing minute after minute as the Ship settled quietly lower and lower in the sea...the music they played serving alike as their own immortal requiem and their right to be recorded on the rolls of undying fame."		
10. "The oarsmen laid on their oars and all in the lifeboat were motionless as we watch her in absolute silence—save some who would not look and buried their heads on each other's shoulders."		
11. "I can never understand why God would have spared a poor Finnish girl when all those rich people drowned."		

Quote analysis sheet: explain, elaborate and evaluate!

Choose one of the quotes above to analyse, or find your own. Be sure that your quote comes from a reputable source!

Write your quote/statement here:

Who made this statement?

When (approximately) do you think this statement was made? Give evidence. Where was the statement made?

What does the quote reveal about the speaker?

What does this quote show us about the time it was said? What is interesting about this quote?

What is the main topic of the quote? What other issues are mentioned or alluded to? Can there be multiple interpretations of the quote?

How does the quote make you feel?

What images do you have after hearing the quote?

Are there any words that you don't understand? Guess their meaning. Use a dictionary to define any words that are unfamiliar.

TITANIC ONLINE AND INTERACTIVE ACTIVITIES

Teacher notes

VELS links

Levels 3-6, History, Geography, English, Science, ICT.

There are many websites and resources about *Titanic* (please see 'Web links and Resources' in the *Tales of Titanic Teacher Notes*). Below are four web links to sites that provide some dynamic interactive learning activities for students from a range of levels. These sites are great to use as extension activities or to facilitate learning and understanding of some key issues.

Last mysteries of the *Titanic*

<http://dsc.discovery.com/convergence/titanic/titanic.html>

A site produced from Discovery Channel that allows students to gain a greater understanding about *Titanic*, specifically the expeditions to its wreck. The site is divided into the following sections: Explorer, Video Stories, Virtual Dive, Expedition Diary, Jigsaw Puzzles and a *Titanic* Quiz. This site is suitable for years 5-10 students.

Titanic built in Belfast

<http://www.Titanicinbelfast.com/welcome.aspx>

A site produced by the Ulster Folk and Transport Museum in Northern Ireland. This site is student friendly and contains information about the construction of *Titanic*, the voyage and aftermath. There are excellent photos and video clips with clear explanations. The 'learn' section provides an interactive way for students to learn more about the construction of *Titanic*. A great research site that will extend student knowledge about *Titanic*. Suitable for years 5-10.

Onboard the *Titanic*

<http://www.discovery.com> (type in 'Titanic' in search engine)

A site produced by the Discovery Channel that places students in a position to explore the events of April 12-15 from the perspective of a passenger. Students can click on one of five passengers and read and listen about their ordeal on *Titanic*. Includes very emotive descriptions suitable for years 6-10.

Online Quizzes

http://www.Titanic-Titanic.com/Titanic_quiz.shtml

This site contains two quizzes, one with 51 general multiple choice questions about *Titanic* and the other with six multiple choice questions about passengers. These are great extension activities for students of all year levels who have finished their work, or they could be used at the conclusion of the *Titanic* unit.

<http://www.bbc.co.uk/cgi-perl/northernireland/titanic/quiz.cgi>

BBC *Titanic* journey: An extraordinary journey into the deep. This site has a range of different video clips about *Titanic* and then an opportunity for students to complete an series of online quizzes. Suitable for years 5-10.



TITANIC: RECOVERY AND CONSERVATION

Teacher notes

VELS links

History Levels 5-6.

This activity has been adapted from 'Artefact Conservation' page 46 of the 'Titanic Science' Teacher's Guide'. It explores the processes and issues surrounding artefact recovery and conservation. Please refer to the activity 'ArteFact: facts from Art' in *Titanic* for English and Adult Learners.

Background information

The environmental conditions at the Titanic provide a mixed situation for preserving artefacts. On the good side, the combination of no light, little oxygen and near freezing temperatures aid in preserving objects. On the negative side: the bottom silt is acidic, the pressure is 400 times greater than at the surface and the electrochemical activity of sea water along with deep sea microorganisms that metabolize metal have stained and corroded many metal objects. All recovered objects must be treated immediately after they are exposed to air. The surface of some metal objects made of iron can explode, fizzle or steam when exposed to the corrosive oxygen in air. When objects soaked in sea water begin to dry out, the salts that have embedded in them crystallize, taking up more space and causing minute fractures that can rupture the glazes on ceramics. Wood, leather, paper and other organic objects can also deteriorate quickly if allowed to dry, since bacteria and fungi grow more quickly when items are exposed to light and oxygen.

Nobody expected that paper would have survived so long at the bottom of the ocean, but the Titanic is a treasure trove of sheet music, personal letters, postcards. All of the paper items that have been conserved were originally found in leather. The tanning process repels bacteria and items found in leather have been protected from being eaten by bacteria. Papers are stored in the dark, with temperature and humidity strictly regulated. Along with conserving an object for the future comes the question of whether or not it should be restored to its original condition. The conservators working on the Titanic artefacts have chosen to do a minimum amount of restoration, believing that the story of the wreck is best told by allowing the objects to show the signs of their internment two and a half miles below the surface of the ocean.

(Adapted from *Titanic Science* p.46).

Learning outcomes

Students will:

- gain an understating of the meanings of 'recovery' and conservation.
- learn how recovery and conservation of *Titanic* artefacts in conducted.
- explore issues surrounding recovery of *Titanic* artefacts.
- generate their own opinions in relation to artefact recovery from *Titanic*.

Web links

Recovery and Conservation. To be printed or allow students to access online.

http://Titanicmelbourne.com/about_recovery.html

Last Mysteries of Titanic. Produced by Discovery Channel. Contains video clips, deck plans, interactive jigsaw puzzles, a virtual dive, a quiz and other information.

<http://dsc.discovery.com/convergence/titanic/titanic.html>

Interview with Eva Hart from BBC (7mins)

<http://www.bbc.co.uk/archive/titanic/5055.shtml>



Titanic: recovery and conservation

Student instructions

Task 1: Looking at artefacts

Think

What is an artefact? What are artefacts useful for?

Why do we display artefacts in museums?

Who owns the artefacts that have been recovered from *Titanic*?

Where are these artefacts displayed?

Explore the web links below. What artefacts are on display at each location?

Touring Exhibitions

- *RMS Titanic Inc (Titanic: The Artefact Exhibition)*
<http://www.Titanic-online.com/>

Canada

- Maritime Museum of the Atlantic (Halifax NS)
<http://museum.gov.ns.ca/mmanew/en/home/whattoseedo/permanentexhibits/Titanic/default.aspx>
<http://www.gov.ns.ca/nsarm/virtual/Titanic/>

United States:

- Museum at the *Titanic* Historical Society
<http://www.Titanic1.org/museum/museumcollection.asp>

England:

- Maritime Museum (Southampton)
<http://www.southampton.gov.uk/s-leisure/artsheritage/history/Titanic/gallery/>
- National Maritime Museum (Greenwich)
- Merseyside Maritime Museum (Liverpool)
<http://www.liverpoolmuseums.org.uk/maritime/collections/liners/Titanic/>

Northern Ireland

- Ulster Folk and Transport Museum (Belfast)
<http://www.Titanicinbelfast.com/welcome.aspx>

Recovery and conservation

Think. What are the differences between:

- Restoration.
- Conservation?

Access the page 'Recovery and Conservation' http://Titanicmelbourne.com/about_recovery.html

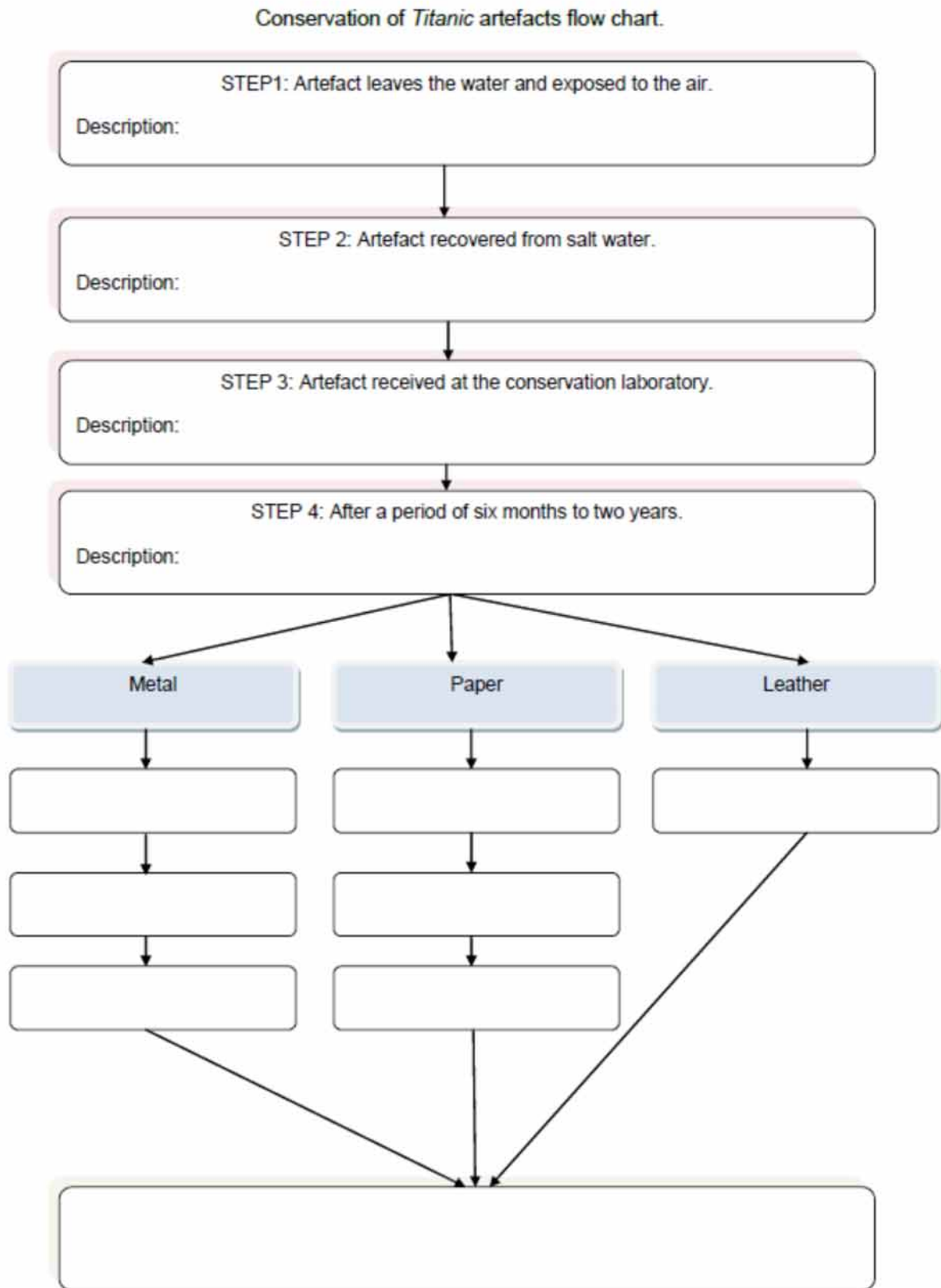
Read the first four paragraphs of information about recovery of objects from *Titanic*.

- Who conducts the recovery of artefacts?
- Where is the wreck located? How are artefacts recovered?
- Describe how dives are undertaken and what equipment is used.
- How did the recovery in 2004 vary from the previous recovery operations?

Guess. What do you think needs to be done to artefacts in order to conserve them?

Task 3: Explore and summarise

Read or listen to the information in the last five paragraphs of the article. Summarise the information and add it to the flow chart below.



Task 4: Evaluate

1. Recovery of artefacts from *Titanic* has raised many questions. Read one perspective from *Titanic* survivor Eva Hart.

What do you think about the mission to go down, take pictures and look at the Titanic in its watery grave?

To go down and photograph the *Titanic* I think is a wonderful thing. It must be a tremendous scientific achievement, and so long as Dr. Ballard assures us, which he has, that he has no intention of doing anything but photographing the ship, I think that's fine.

What would you think if there was an attempt to remove any of the contents of the ship?

I would not approve that. I would call that vandalising a grave. If someone came to me next week and said, 'We know where your mother is buried. We will go and dig up the grave, open the coffin. There might be something of value there that you would like', well I would be horrified and so would you. Well that's my father's grave. I'm equally horrified.

Source: Eva Hart, BBC *Titanic* Transcripts in Tales of *Titanic* Melbourne Museum Education Kit
Full Audio of interview (7mins) <http://www.bbc.co.uk/archive/titanic/5055.shtml>

2. How do you feel after reading Eva Hart's opinion?
3. Should we recover artefacts from the *Titanic* wreck?

Extension activities

Find out more about recovery conservation and restoration.

- Explain each process in more detail.
- Create a brochure explaining these terms.

Jobs:

- Marine archaeologist.
 - Conservator.
 - Submarine pilot.
 - Historian.
 - Ship captain.
- Choose one of these jobs and find out more about it.
 - What education requirements and training are needed for a career in one of these fields?

Write a letter of opinion to the editor. Express your feelings about the recovery of *Titanic* artefacts.

Explore the recovery of artefacts in different locations, e.g. artefacts from Pompeii in Italy, from Egypt or from ancient China.



TITANIC PHOTO AND IMAGE ANALYSIS: USING PICTURES TO READ THE PAST

Teacher notes

VELS links

History and English levels 4-6.

This activity uses photograph and image analysis as a way to explore issues and themes relating to *Titanic*. As a class, explore the factors that can influence how a photo is viewed and understood, the reason it was taken and what is included and excluded. This activity gives students the opportunity to establish, modify and validate their own perceptions and understanding of history and extract and interpret information from visual sources as well as develop observation skills and the ability to make interpretations and formulate their own questions. Images can be printed, cut up and placed on cards or projected, or the teacher could direct students to view the images online.

Primary Sources: Written accounts and objects created and/or used at the time, as well as visual material and photographs recorded at the time or later by a person who was living at the time

Secondary Sources: An explanation of the past based on research, interpretation and analysis usually written some time after the actual period studied.

Learning outcomes

Students will:

- be aware of the differences between primary and secondary sources.
- make judgments about the views being expressed.
- identify the content, origin, purpose and context of historical sources.
- evaluate historical sources for meaning, point of view, values and attitudes.
- recognise that in history there are multiple perspectives and partial explanations.

Web links

Biographies, testimonials and images of *Titanic* passengers and crew

<http://www.encyclopedia-Titanica.org/>

Titanic Inquiry Project: Documents from the American and British inquiries

<http://www.Titanicinquiry.org/>

BBC interviews with survivors of passenger and crew survivors

<http://www.bbc.co.uk/archive/titanic/>

Titanic images (including photos and paintings)

http://www.maritimequest.com/liners/Titanic_page_1.htm

<http://channel.nationalgeographic.com/episode/return-to-Titanic-1113#tab-Photos/>

<http://www.fatherbrowne.com/>

<http://www.TitanicHistoricalSociety.org/museum/museumcollection.asp>

<http://www.TitanicPhotographs.com/GalleryA.asp?GalleryID=P>

<http://www.abratis.de/ship/>

<http://www.transatlanticdesigns.com/prints.html>

<http://www.flickr.com/groups/rmsTitanic/pool/page4/>

TITANIC IMAGES

All images © Premier Exhibitions, Inc.





Titanic photo and image analysis: using pictures to read the past

Student instructions

Task 1: Engage and explore: why do we take pictures?

- Do you have a digital camera? Do you like to take photos? What do you take photos of?
- What famous historical photos can you think of?
- Why are photos and images useful in history?
- What images come to mind when you think about *Titanic*?

Task 2: Explain and elaborate

Choose one of the images from the *Titanic Images* or select your own image. Complete the *Titanic Image Analysis* sheet. Compare your findings with a member of your class.

Task 3: Evaluate

Which image are you most drawn to and why?

- In what ways is life the same now?
- In what ways is life different now?

Extension activities

Imagine you are in the image.

- Which person in the image are you?
- What might you see, hear or smell? How would you feel?
- What happened a few minutes before and after the shot was taken?

Create

Draw another part of the image. What things do you think have been deliberately excluded and/or included by the photographer?

Explore

There were no photos of the sinking of *Titanic*, but many reproductions by artists. Examine some of these reproductions. Are they historically accurate?

Ken Marschall paints images of *Titanic*. <http://www.transatlanticdesigns.com/prints.html>

Take a look at his images of *Titanic* and complete an image analysis or a report to a newspaper about one or two images and how they portray *Titanic*.

Find other famous historical images and analyse them and report your findings to the class.





Student worksheet: *Titanic* images analysis

Observation	Subject List the objects and people you can see in the photo. Include a description such as gender age, posture and facial expressions.	Setting What is the physical setting of the image (indoor/ outdoor, time of day)?
	Action What activity/event is shown? What are people doing? Are they working in groups or alone? What are their relationships to each other?	Other clues Is there any action taking place in the image? If so please explain. What other details can you see (e.g. is it posed or candid)?
Knowledge	What does the image tell you about <i>Titanic</i> ?	
	What do you already know about the situation and the time period shown, and the people and objects that appear?	
	How does this image show what life was like during the time of <i>Titanic</i> ?	
	How would you describe the mood in this image?	

Interpretation	Who do you think created the image? Why do you think the image was produced?
	What other comments can you make about this image?
	What would you like to know more about?
	If you could ask one question about this image what would it be?
	How would a similar image be different or the same today? Find a recent image and compare it with the <i>Titanic</i> image.
	Give the <i>Titanic</i> image a title.

TITANIC AND GEOGRAPHY

Teacher notes

VELS links

Geography Levels 4-6.

This activity has been adapted from 'Are We There Yet?' page 10 of 'Titanic The Artefact Exhibition Teacher's Guide' and 'Plotting Icebergs' from page 13 of the 'Titanic Science Teacher's Guide'. It is recommended that the blank outline map (Student Activity Sheet 2) is copied in A3 size to allow students to include all details. Resources: Print or online atlases and other sources with answers to complete the table in Task 1. The second mapping activity should be distributed after the first mapping activity is complete.

Latitude and Longitude

Positions on the earth are measured in terms of latitude and longitude. Latitude lines are drawn north and south of the Equator. The Equator is at latitude 0° , while the North Pole is 90°N and the South Pole is 90°S . Longitude is a measure of location east or west of the Prime Meridian. The Prime Meridian is 0° and the line on the opposite side of the world is 180° . The first number in a measurement of latitude or longitude is given in degrees. If the location is more specific, the second number is given in minutes—divisions of 60, just as on a clock.

Answers to Task 1 on student activity sheet.

- | | | |
|--------------------|-------------------------------------|------------------|
| 1. Atlantic | 7. Cherbourg | 12. USA |
| 2. Belfast | 8. France | 13. Labrador Sea |
| 3. Ireland | 9. Queenstown (known as Cobh today) | 14. North Sea |
| 4. Southampton | 10. Ireland | 15. Irish Sea |
| 5. England | 11. New York | 16. Halifax |
| 6. English Channel | | 17. Canada |



Map (shown on page 44). This is a blank outline map of North America on the left hand side, the Atlantic Ocean in the middle of the map and the UK and parts of Western Europe on the right hand side of the page.

Learning outcomes

Students will:

- gain an understating of the location of the *Titanic* sinking and icebergs,
- identify and describe the features of different kinds of maps, diagrams, photographs and satellite images, using key geographic concepts,
- use maps to describe the distance, direction and location of places,
- collect, analyse, evaluate and present geographical information,
- understand and apply the concepts of latitude and longitude, and mapping skills.

Web links

Background information about *Titanic*

<http://en.wikipedia.org/wiki/Titanic>

Information about country of residence (not nationality) of passengers and crew.

<http://www.encyclopedia-Titanica.org/titanic-passenger-crew-home-country/>

Information about icebergs

<http://www.uscg-iip.org/cms/>

<http://www.encyclopedia-Titanica.org/the-iceberg-resurfaced.html>

http://www.encyclopedia-Titanica.org/iceberg_right_ahead.html





Student activity sheet 1

Task 1: Complete the second column in the table below based on your own knowledge. Write in pencil. Now compare your answers with a classmate and then conduct some research to find the answers you don't know.

Location	Name	My colour, pattern or symbol
1. Ocean across which <i>Titanic</i> sailed		
2. City where <i>Titanic</i> was built		
3. Country where <i>Titanic</i> was built		
4. Departure city		
5. Departure country		
6. Body of water crossed to get to first stop		
7. First stop city name		
8. Country of first stop		
9. Second stop city name		
10. Country of second stop		
11. Destination city		
12. Destination country		
13. Sea between Canada and Greenland		
14. Sea that separates England and Nth Europe		
15. Sea that separates Ireland and England		
16. City where boats were charted from to look for bodies and where many victims were buried		
17. Country where these boats were sent from		
18. Zone of <i>Titanic</i> Sinking	Shown as the box on the map (Activity Sheet 3)	Red

Task 2: Locate and **Label** all of the locations on your map. Be careful – there are many things to label. Choose a colour or pattern for each item and complete the third column in the table.

Task 4: Add BOLTSS to your map (Border, Orientation, Legend, Title, Scale and Source).

Task 5: Complete the mapping activity on Sheet 3 'Plotting icebergs'.

Task 6:

- Draw the route taken by *Titanic* across the Atlantic (you will need to sketch this).
- Write a paragraph to describe the route taken by *Titanic* from England across the Atlantic using the spatial concepts of location, distance, distribution and region.
- Write a paragraph to describe the distribution of icebergs in the Atlantic.
- Sketch in the 'zone of *Titanic* sinking on Activity Sheet 2: Outline map.



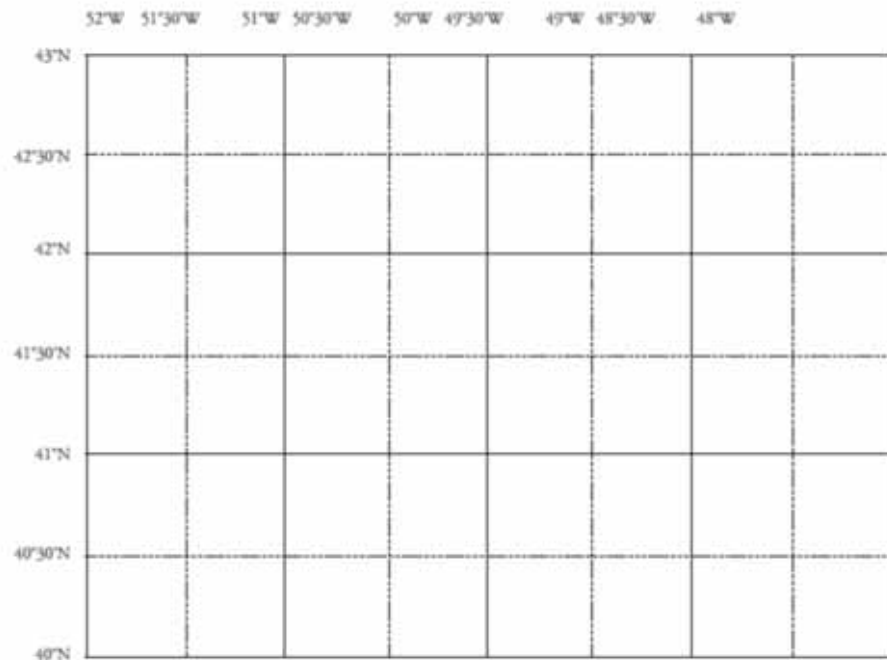
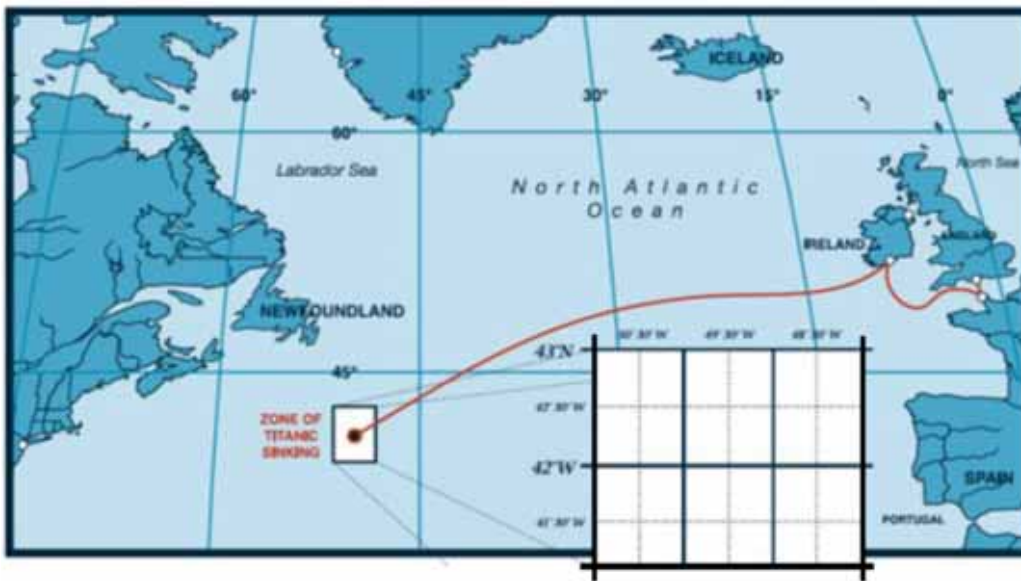
Student activity 2: Outline map





Student activity sheet 3: Plotting icebergs

Event	Co-ordinate
Icebergs reported by other ships	41°51'N, 49°52'W, 41°27'N, 50°8'W 42°05'N, 50°7'W, 42°0'N, 51°0'W
Location of <i>Titanic's</i> first emergency message	41°46'N, 50°14'W
Corrected message	41°46'N, 49°14'W
Location of wreck	41°44'N, 49°56'W



Extension activities

- Label the other countries shown on Activity Sheet 2: Outline map.
- Visit the Encyclopedia Titanica website and label the cities and countries of residence of *Titanic* passengers on a blank world map. Explore one of these passengers in detail and why s/he was on *Titanic*.
- Explore how icebergs are formed and investigate the origin of the iceberg that *Titanic* hit.
- Discuss how technology has changed. For example, how does a GPS aid ship navigation, wreck discovery and artefact recovery today?

Source: *Titanic: The Artefact Exhibition Teacher's Guide* (page19) © Premier Exhibitions, Inc.

TITANIC IN NUMBERS: MATHS ACTIVITIES

Teacher notes

VELS links

Maths Levels 4-6.

The study of *Titanic* can involve detailed study of facts and figures and the application of mathematical concepts. Below are some ideas for activities and useful web links.

Activity ideas

Fun *Titanic* Facts: <http://www.rmsTitanic.net/index.php4?page=422>

Quick facts and trivia http://www.Titanicmelbourne.com/about_facts.html

Investigating Scale and Size

- Students investigate the size of *Titanic* (width, height and length).
- Students investigate the dimensions of other large objects such as an aeroplane, bus and car and compare them to *Titanic*.
- Students create a scale drawing of *Titanic*.

Costs

- Students investigate the prices for tickets passengers paid on *Titanic*.
http://www.encyclopedia-titanica.org/titanic_passenger_list/ Click on the passenger lists for each class to see a list of fares paid by passengers.
- Conversions and comparisons could be made to today's prices in the context of comparative incomes.

Cargo

- There are some interesting lists about the cargo that *Titanic* was carrying. Students investigate *Titanic's* commercial cargo and dining provisions and make a series of graphic representations about what was on board. http://www.Titanic-whitestarships.com/MGY_Cargo.htm
- Explore the amount of mail on *Titanic*. <http://www.postalmuseum.si.edu/Titanic/>

Construction

Explore: How much did *Titanic* cost to build? How many workers were involved in construction? What pay did workers receive? How much material (specify) was used in construction?

Passengers and Lifeboats

- Find out how many lifeboats were on *Titanic* and actual lifeboat capacity. How many spaces on the boats were actually filled?
- Graph the number of survivors from each class on *Titanic*. Graph the percentage of passengers and crew that survived.
- Explore the dimensions of the lifeboats, measure the area out on the floor and see how many of them would fit in. Use the life-size outline of a lifeboat in the Melbourne museum lower ground foyer.

Calculating Iceberg Frequency

Students explore how to predict iceberg frequency – see *Titanic Science* p. 25.

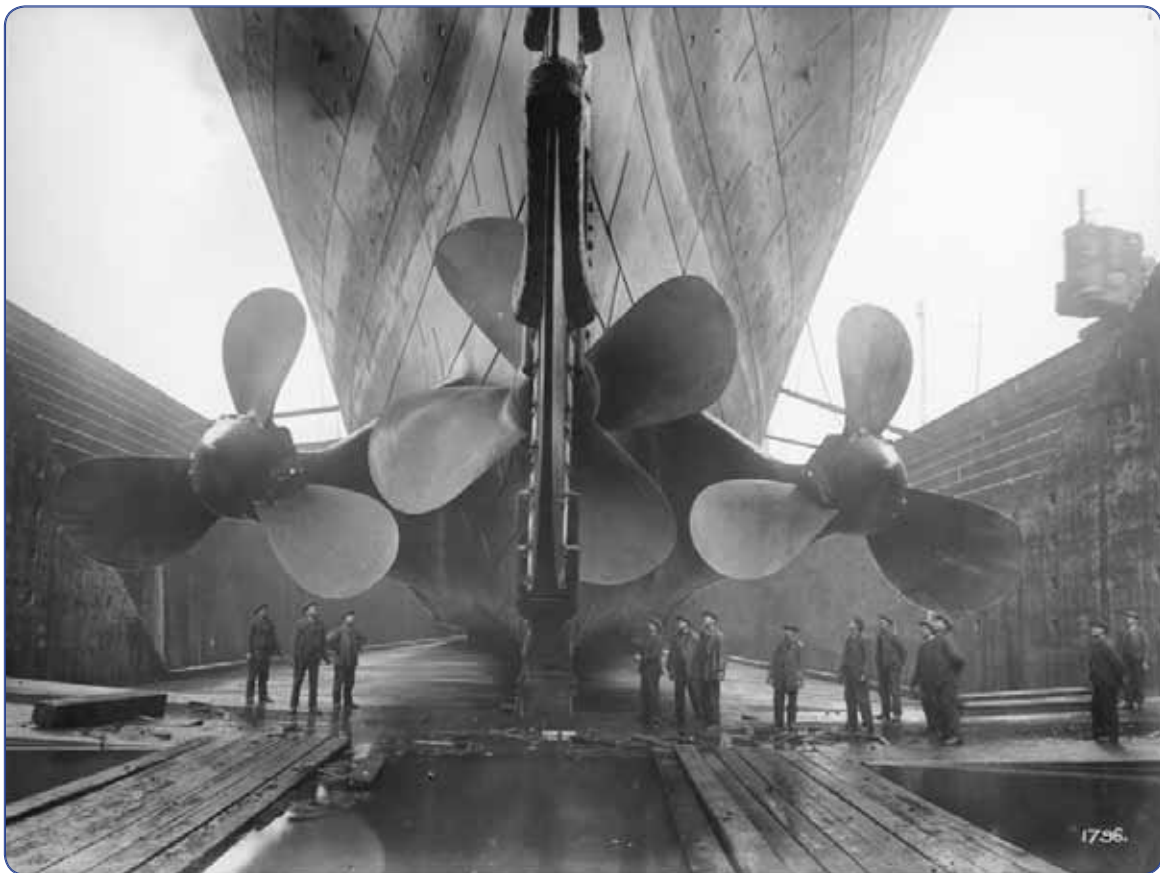
TITANIC SIZE

Teacher notes

VELS links

Maths Levels 4-6.

The following pages include a range of activities that explore the size of *Titanic*. Students will need to source information from the Internet, or the teacher can print out materials. A map of Melbourne's CBD or other area may be required.





Titanic size

Student instructions

Relative size of *Titanic*

To get an idea of *Titanic's* size, compare it to other objects. In the images on the following page, note the size of *Titanic* in relation to some Australian icons.

Visit the FIVE websites listed below and complete the table.

Convert the measurements in column two into metres and centimetres.

(1 foot = 0.3048 metres, 1 metre = 3.2808399 feet)

Web-link	Measurements in feet and inches	Metres and centimetres
http://www.encyclopedia-Titanica.org/	Length: 882 feet 9 inches Beam/breadth: 92 feet	
http://www.Titanicmelbourne.com	Length: 882 feet 5 inches Breadth: 92 feet 6 inches	
http://www.Titanic-online.com/index.php4?page=faq	Length: 882 feet 8 inches Breadth: 92 feet 6 inches	
http://en.wikipedia.org/wiki/RMS_Titanic	Length: 882 feet 9 inches Breadth: 92 feet 0 inches Height: 175 ft (from keel to the top of the funnels)	
http://www.titanic-nautical.com/titanic-facts.html	Length: 882 feet 6 inches. Beam: 92 feet 6 inches. Height: 175 feet	

Why do some of these measurements vary?

The gross tonnage of *Titanic* was 46, 328 tonnes. What does gross tonnage include?

http://en.wikipedia.org/wiki/Gross_register_tonnage

Draft, beam, depth, stack: what do these measurements refer to? (Use an Internet search engine to find the definitions).

TITANIC

THE ARTEFACT EXHIBITION

MELBOURNE MUSEUM 14 May – 17 October 2010



Melbourne 'W Class' Tram: **14.17m**



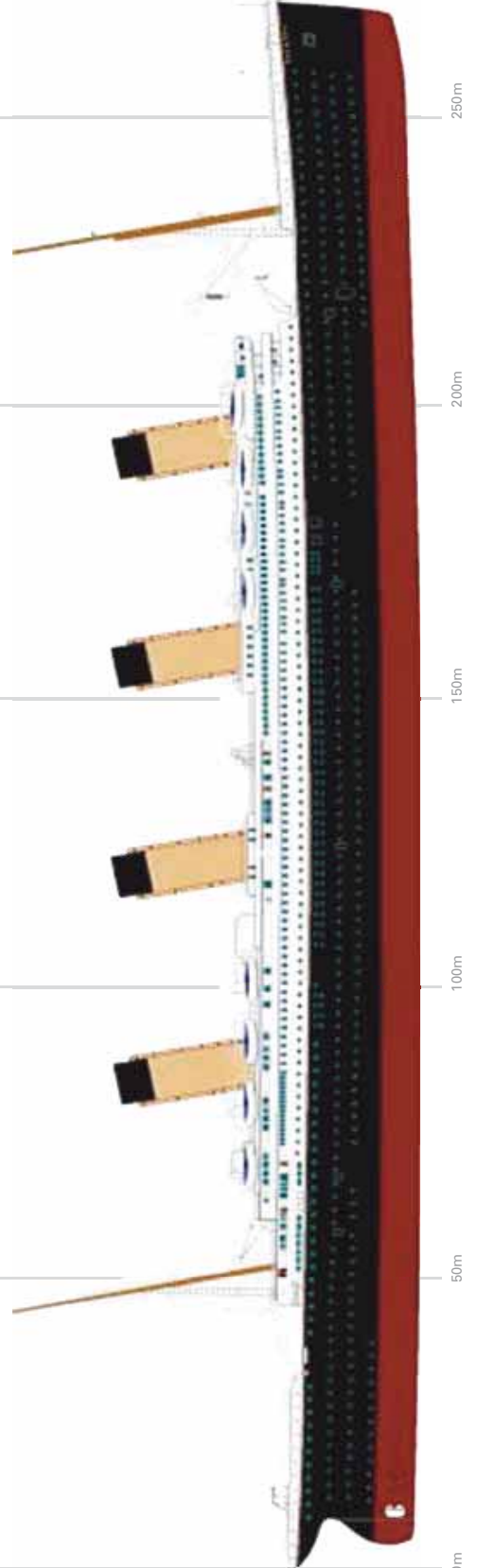
Sydney Freshwater Class Ferry: **69.54m**



Sydney Opera House: **140m**



Rialto Melbourne: **252m**



Titanic:
268.98m

Create

- Now that you know the size of *Titanic* in metres and centimetres, create a diagram to visually represent its size. See the image shown above 'Relative Size of *Titanic*' as an example. Select three objects that you would like to compare *Titanic* with, for example, a car, a plane, Melbourne museum, your classroom or school building.
- Find out the length and height of each object. Use graph paper to draw the relative size of each object in relation to the length and height of *Titanic*.
- Write a description of each object in relation to *Titanic* referring to how many of each object would be needed to represent the length of *Titanic*.

Extension activities

Calculate how many of your items could be stored on *Titanic*. Note: you will need to refer to the tonnage of each item and the volume of space available on *Titanic*.

'She would reach, if placed in Swanston-street, from Flinders-street past the town-hall to Little Collins-street.'

-The *Argus* (Melbourne) Wednesday 7 April 1912

<http://newspapers.nla.gov.au/ndp/del/article/11668159>

In 1912, the *Argus* newspaper made the statement above.

- Use mapping and mathematical skills to show the size of *Titanic* in relation to some streets in your neighbourhood.
- Use a map provided by your teacher, or access Google Maps:
<http://maps.google.com.au/> or Street Directory.com: <http://www.street-directory.com.au/>
- Select the area you would like to use. Zoom in on the area you want and note the scale shown.
- Print a copy of your map or take a print screen (It is not possible to save the map directly).
- Using the same scale on the map, create a diagram of *Titanic* on your map or on a separate piece of paper and glue the diagram on top of your map.

Turning *Titanic* on its head!



www.Titanicberg.com/images/Size-of-Titanic.gif

In groups, compare the length of *Titanic* to FIVE landmarks – important buildings or geographic structures – in Melbourne or elsewhere in Australia. Melbourne suggestions: The Melbourne Museum, the MCG, Eureka Tower, Melbourne Central, the Royal Exhibition Building, your school. Find out the height of these buildings and then create a diagram to show *Titanic* next to them.

TITANIC SHIP DESIGN

Teacher notes

VELS links

English, History, Geography, Levels 4-6.

Use a blank outline of *Titanic* for different activities. Suggestions are listed below.

Activity ideas

Construction and Features

- Conduct some research into the design and construction of *Titanic*.
- Outline what was included on each deck.
- Use the blank ship diagram to show various features of *Titanic* and label each of the decks.

Passenger Stories

- See the activity 'I saw it with my own eyes: journey traces' in *Titanic* for English and Adult Learners.
- Students find out about the six Australians on board *Titanic*. They give a brief biography and trace where they might have worked and slept on the Ship. See *Australians on board Titanic* in the Education Kit.

Damage

Use the diagram to help explain the location and extent of damage caused by the iceberg that *Titanic* hit.

Create a drawing of *Titanic* as it was found on the bottom of the Atlantic.

Workers on board

Explore the roles of workers on *Titanic* and where they worked.

Artefacts

After the Exhibition, mark the locations of artefacts seen at the Exhibition on a map or on the Ship's layout.

Deaths

Label the Ship with causes of death (e.g. collapsing funnels).

Design

Modify *Titanic's* plan and design your own passenger cruise ship.

Web links

Labelled diagram of *Titanic* and each of its decks:

http://www.ecophotoexplorers.com/images/Titanic_layout.gif

Detailed description of the construction of *Titanic*:

<http://www.Titanicinbelfast.com/learnmore.aspx>

Deck plans and facilities

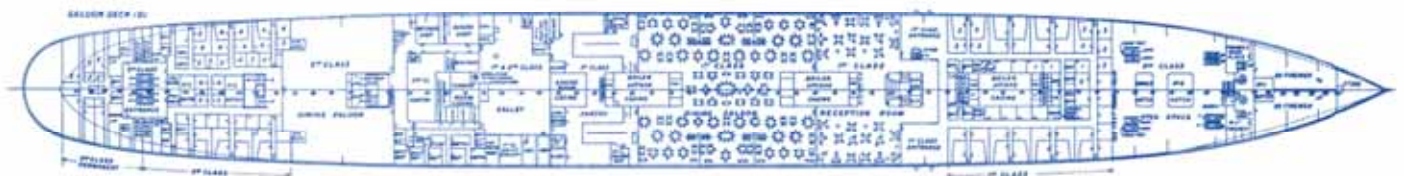
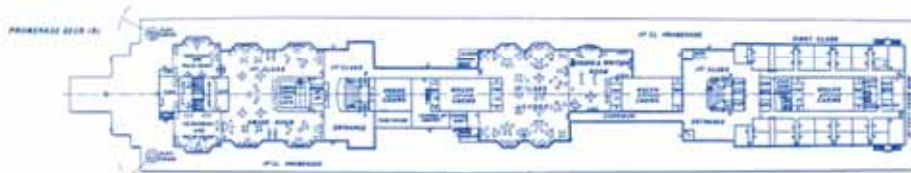
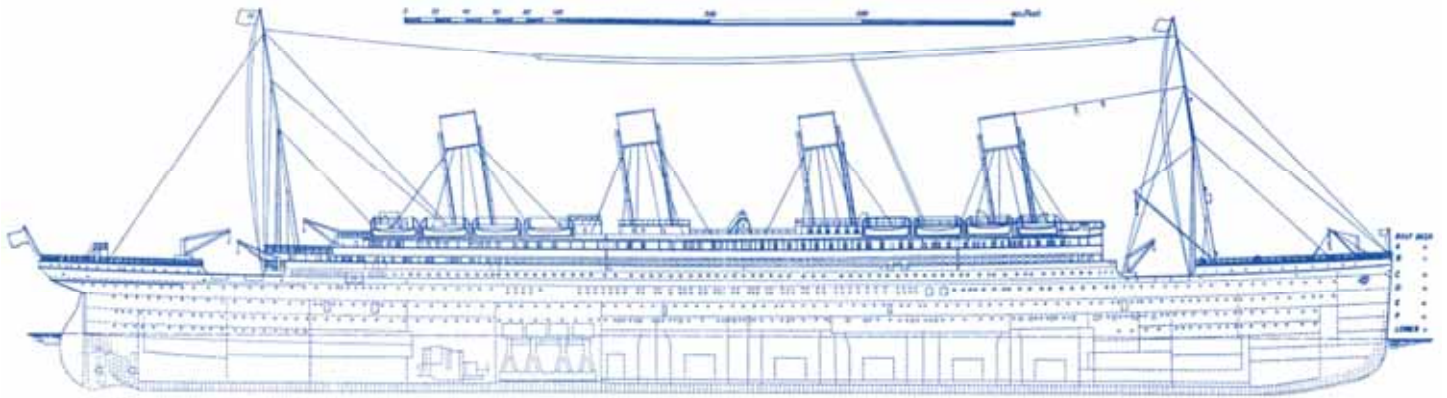
<http://www.encyclopedia-Titanica.org/deckplans/>

<http://www.Titanic-online.com/index.php4?page=167>

TRIPLE SCREW **RMS TITANIC** 46,328 TONS

Combination of Turbine and Reciprocating Engines

Length 882.5 Feet ~ Breadth 92.6 Feet



**Promenade Deck (A), Poop Deck, Bridge Deck (B),
Forecastle Deck, Shelter Deck (C) and Saloon Deck (D)**

AUSTRALIAN STORIES

Teacher notes

VELS links

English and History levels 4-6.

There were six people on board *Titanic* known to be Australian by nationality; however most of them had not been in Australia for some time. Two were passengers and four were crew members. Two survived – a governess/nurse for 1st Class (Evelyn Marsden) and the other a 3rd Class passenger (Charles Dahl). There is also some information about the Australian engineer who died in the sinking, Arthur McCrae.

Issues of interest:

- Little is known of the other Australians. Might this relate to their economic and social status or other factors?
- Dahl left Australia intending to return to Norway – immigration can be a disappointing experience for some and a positive experience for others.
- There is a sense that one hundred years ago, the dominant group of Anglo Saxon settlers in Australia still felt closely connected to Britain and the British empire. This raises interesting facts about demographics and about the sense of belonging.

Learning outcomes

Students will:

- analyse changes in the language and style of media reporting over the last 100 years,
- analyse changes in Australia's relationship to Great Britain,
- compare issues of importance in 1912 with current issues,
- explore the ways in which newspapers report disasters,
- create texts using different genres and media.

Web links

Encyclopedia Titanica, search for Australians on *Titanic*:

http://www.encyclopedia-titanica.org/titanic_passenger_list/ (see biographies reproduced below).

National Library of Australia, newspapers reporting on *Titanic*:

<http://newspapers.nla.gov.au/>

Australian Bureau of Statistics

Immigration Museum, Victoria, *Ten Pound Poms: assisted immigration*:

<http://museumvictoria.com.au/immigrationmuseum/discoverycentre/your-questions/ten-pound-poms/>

ABS, *Year Book Australia 1912*:

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyReleaseDate/3oFoAF856BA2E9CACA2573CD00049891?OpenDocument>

ABS, *Population & Vital Statistics Bulletin 1912*:

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyReleaseDate/3oFoAF856BA2E9CACA2573CD00049891?OpenDocument>

Australian Bureau of Statistics website: <http://www.abs.gov.au/>

Wikipedia, *1912 in Australia*: http://en.wikipedia.org/wiki/1912_in_Australia



Australian stories

Student instructions

Activity ideas

1. Newspapers

The news about *Titanic* sinking was reported in some Australian papers. Explore how the news was reported. What were the headlines? What information was included/excluded in the reports? What type of language was used?

How do you think such a disaster would be reported today?

Compare news reports from 1912 and today. Write a newspaper report about a modern day disaster.

2. Life in Melbourne

What was life like in Australia in 1912? What was Melbourne like? Who lived here? How do you think life has changed in Victoria and Australia?

Think about: Federation, the World Wars, immigration trends, population trends.

3. Biographies

Choose one of the Australian passengers or crew members on board *Titanic*. Conduct some research and create a cartoon, a narrative script or a formal biography about the person.

Write a letter home in the character of one of the Australians on board before *Titanic* sank. Who would you write to? What would you tell them about your experience on *Titanic*?



AUSTRALIANS ON BOARD *TITANIC*

Information source: <http://www.encyclopedia-Titanica.org/People>

Name: Mr. Arthur Gordon McCrae
Born: Adelaide, Australia
Age: 32
2nd Class passenger
Marital status: Engaged
Occupation: Engineer
Boarded: Southampton
Passenger Ticket No. 237216, costing £13.10s
Deceased

Arthur Gordon McCrae was born in Adelaide in 1880. His grandmother, Georgiana McCrae, was the illegitimate daughter of an English duke. She became a respected painter. She and her husband settled on the Mornington Peninsula in an area later renamed McCrae in their honour.

Arthur was educated at the Sydney Grammar School and then Sydney University, where he earned a Bachelor of Engineering. Later he worked at a gold mine in West Africa, before taking an assistant manager's position at a Siberian copper mine. There he became engaged to the manager's daughter.

In early 1912 McCrae decided to travel to Canada to see some friends. He booked a 2nd class passage on *Titanic*. He died in the sinking, and his body was later recovered by the cable ship *Mackay-Bennett*. Among the effects found on him were a diamond and emerald ring, two watches and some foreign banknotes.

He is buried at Fairview Lawn Cemetery in Halifax, Nova Scotia, Canada, under a large headstone with a Celtic cross. The inscription reads 'In Loving memory of Arthur Gordon McCrae B.E., University of Sydney, NS Wales, Australia, who lost his life in the wreck of *Titanic*, April 1912, 32 years. Faithful unto death.'

Name: Mr. Donald S. Campbell
Born: Melbourne, Australia
Age: 25
Marital Status: Single
Occupation: 3rd Class Clerk, Victualling crew
Boarded: Southampton
Deceased
Body Not Recovered

Donald Campbell was born in Melbourne around 1887.

He was single. Other details, such as how he came to be in England, are unknown.

When he signed on to *Titanic* he provided little information, except that he had previously worked on the ship *Ulimaroa*. The only address he gave was "White Star Line, Southampton."

He signed on as a ship's clerk and worked with the 3rd Class victualling (food provisions) crew, earning £5 a month.

He died in the disaster, and his body was never recovered.

Name: Mr. Charles Dahl
Born: Norway
Age: 45
Marital Status: Single
3rd Class passenger
Occupation: Joiner
Boarded: Southampton
Passenger Ticket No. 7598, costing £8 1s
Survived
Lifeboat: #15

Born Karl Edwart in 1866 in Finnmark, Norway, Dahl anglicised his Christian names after he immigrated to Adelaide in 1892 to work as a joiner. He lived there until 1912, when he decided to return to Norway. On his way back Dahl stopped in London. He suddenly changed his mind and decided to travel to the United States to visit his mother. Dahl booked a third-class passage on *Titanic*.

Dahl was asleep in his cabin when the Ship struck the iceberg. He quickly changed into warmer clothing and made his way to the boat deck. He “jumped into one of *Titanic*’s (life) boats as it was being loaded into the sea.” Dahl was rescued in Lifeboat 15 by the *Carpathia*.

He later criticised White Star Line for the lack of lifeboats on *Titanic* and the lack of provisions on the lifeboat: “If there had been more lifeboats every soul on the vessel might have been saved. There was time to launch a hundred more boats...there were no provisions or water in any of the boats. We didn’t even have a lantern.”

Following his ordeal Dahl spent time at St. Vincent’s Hospital in New York, before heading on to North Dakota. He never returned to Australia. Instead he returned to Norway, where he died at the age of 76.

Name: Mr. Leonard Lisle Oliver White
Born: Sydney, Australia
Age: 31
Marital Status: Married
Occupation: Saloon Steward
Boarded: Belfast
Deceased
Body Not Recovered

Leonard Lisle Oliver White was born in Sydney around 1881. He had previously worked on the Ship *Osterley*. He was on board *Titanic* during her trial trip from the Belfast shipyard to her official departure port of Southampton.

When he signed on again in Southampton in early April 1912, he gave his address as 248 Romsey Road, Southampton. He worked as saloon steward, for which he received a monthly wage of £3 15s.

White died in the disaster, and his body was never recovered.

Name: Miss Evelyn Marsden
Born: Dalkey, Australia
Age: 28
Marital Status: Single
Occupation: Stewardess
Boarded: Southampton
Survived
Lifeboat: #16

Evelyn Marsden was born in 1883 at 'Stockyard Creek', Dalkey, about 80 km north of Adelaide. How and why she ended up in England is a mystery, but by 1912 she was working for the prestigious White Star Line as a stewardess.

Evelyn had worked on *Titanic's* sister Ship *Olympic*, and she signed on to *Titanic* in early April, earning a monthly wage of £3 10s. She also assisted as a nurse for the 1st class passengers.

When Evelyn was growing up, she visited the farm of family friends at Murray Bridge. While there she was taught to row a boat against the tides and currents of the Murray River. This skill came in very handy when she found herself aboard a lifeboat in the Atlantic Ocean. After the disaster, she made her way to Murray Bridge to personally thank those who had taught her how to row.

Shortly after the *Titanic* tragedy, Evelyn married Dr William Abel James, who had also worked for White Star Line. They moved back to Australia, where William practised medicine in Adelaide and Sydney.

Evelyn died in 1938, and her husband died soon after. The family story is that Dr James died of a broken heart, unable to live without his beloved wife. They are buried at Waverley Cemetery in Sydney. Until recently the grave was unmarked, but a headstone was finally erected on the site in 2000.

Name: Mr. Alfred Nichols
Born: Sydney, Australia
Age: 42
Marital Status: Married
Occupation: Boatswain
Boarded: Belfast
Died in the sinking
Body not recovered

Alfred Nichols was born in Sydney around 1880. He worked on *Titanic* as a boatswain ('bosun' – an officer in charge of the Ship's deck crew, rigging, cables, and anchors), the same as his previous job onboard the sister ship *Olympic*. For this he received a monthly wage of £8 10s.

He was on board *Titanic* during her trip from the Belfast shipyard where she was built to her official departure port of Southampton.

After the collision with the iceberg, Nichols, nicknamed "Big Neck," was last seen leading a team of six seamen down to open a few of the lower gangway doors to load lifeboats. None of those seven men were seen again. Nichols' body was never identified from amongst the recovered bodies.