Teacher course pack

Remembering Titanic

Cross-curricular lessons for Key Stage 3

An introduction to the project, six lesson overviews and the lesson slides, for four history lessons and two science lessons.

Four history lessons

Significance, disaster, blame and impact.

Two science lessons

Watertight bulkheads and keeping afloat.

A collaboration between the University of Southampton, SeaCity Museum and seven teachers from Southampton and Hampshire.

University of Southampton

SEACITY MUSEUM THE LIVES. THE TIMES

Course pack

Contents

Start here

Introduction

About the project, principles, people, how to use the lessons, curriculum goals and project history

Pages 3

Lesson 1

Why was the Titanic significant to Southampton?

History lesson

Overview 7 Slides 10

Lesson 2

Why was the sinking of the Titanic a disaster?

History lesson

Overview 12 Slides 14

Lesson 3

Who was to blame for the sinking of the Titanic?

History lesson

Overview 16 Slides 19

Lesson 4

How far did the Titanic disaster have an impact on the world?

History lesson

Overview 21 Slides 24

Lesson A

Watertight bulkheads

Science lesson

Overview 26 Slides 28

Lesson B

Keeping afloat

Science lesson

Overview 30 Slides 32

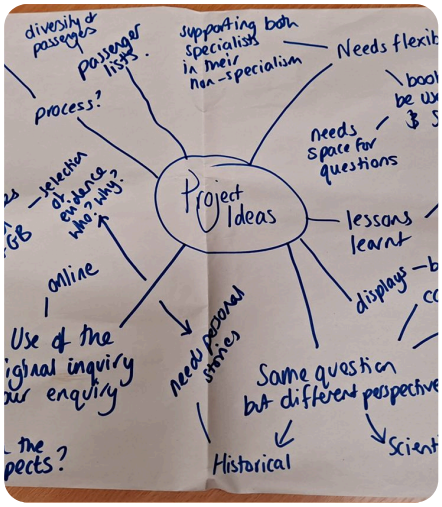
HOW THIS PACK IS ORGANISED

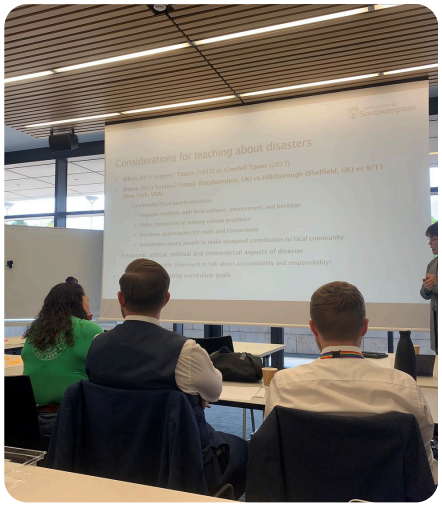
Each lesson section opens with its lesson overview, followed by the lesson slides, up to eight to a page, so the whole sequence can be printed and annotated.

The four history lessons are designed to be taught in order. The two science lessons can be slotted in after Lesson 2 (Lesson A) and Lesson 3 (Lesson B), or taught at the end of the unit.

Introduction & lesson outlines

Cross-curricular lessons for Key Stage 3





About the project

Many of the issues facing the world today are complex in nature and require knowledge and skills that cut across school subjects. The ability to analyse real-world issues and phenomena through different disciplinary lenses and to appreciate their interconnectedness has become an essential element of democratic citizenship.

Remembering Titanic was a collaborative project between researchers at the University of Southampton, the SeaCity Museum and seven teachers from state-funded secondary schools in the Southampton and Hampshire area. One of the key project priorities was to facilitate cross-curricular learning between different school subjects, namely science and history. As part of the project, we designed and delivered three half-day CPD sessions where the teachers learned about the Titanic disaster and developed an interdisciplinary curriculum unit. Below I describe the key ideas that underpinned the CPD and the lessons learned from the project.

Principles

Science & history learning

How are science and history similar or different as academic disciplines and school subjects?

Where do the aims of science and history learning overlap in the curriculum?

How can the two subjects work together to facilitate learning about the Titanic?

School-based and out-of-school learning

How can local resources and learning environments such as museums, monuments and other forms of memorials be utilised for learning about Titanic?

How can school-based and out-of-school learning be integrated to facilitate meaningful learning?

Place-based learning

How can we engage students in learning about historical events that were significant to their own community?

Disaster and tragedy

How can we talk about tragic and disastrous events in a sensitive and respectful way?

People

The unit of work was a collaborative endeavour between the University of Southampton, science and history teachers from across Southampton and Hampshire and Museum Educators from SeaCity Museum, Southampton.

UNIVERSITY OF SOUTHAMPTON
Wonyong Park, Neta Shaby, Rachele Newman, Tilly Scotthorne

SEACITY MUSEUM
Andy Skinner, Liza Morgan

OUR TEACHERS
Megan Barton, Christopher Dale, Ashleigh Fair, Natalie Harrison, Mary Shepherd, Catherine King, Christopher Zieba

Who it is for

This unit of work can be used to develop pupils' key substantive and disciplinary knowledge of science and history at Key Stage 3. The story of the Titanic disaster has enduring appeal and interest for what it reveals to us about maritime design and development as well as social and economic history and the lessons that can be learnt when a disaster such as this occurs. It may be of particular interest to schools in the Southampton and Hampshire area but is likely to have a wider appeal due to the national and international interest in the sinking of Titanic.

How to use

There are six lessons in this unit of work. It was designed by science and history teachers to explore the Titanic disaster from a cross curricular perspective. The taught sequence has an element of flex in recognition that there may be timetabling or curricular constraints that make it difficult to align science and history taught content.

The four history lessons are designed to be taught in the identified sequence and they utilise previously taught content:

- **Lesson 1** — **Why was Titanic significant to Southampton?**
- **Lesson 2** — **Why was the sinking of Titanic a disaster?**
- **Lesson 3** — **Who was most to blame for the Titanic disaster?**
- **Lesson 4** — **How far did the Titanic disaster have an impact on the world?**

The two science lessons can either be slotted into the above sequence after Lesson 2 (Lesson A) and Lesson 3 (Lesson B) or at the end of the unit of work.

- **Lesson A** — **Watertight bulkheads**
- **Lesson B** — **Keeping afloat**

Each lesson pack contains:

Lesson outline

The intended learning, alignment to the National Curriculum and a brief narrative of how the lesson is designed to run.

Lesson presentation

PowerPoint slides including all the main teaching points and activities in the lesson.

Lesson resources

Any source material or resources used in the lesson.

Curriculum goals

The unit of work is intended to meet several of the National Curriculum goals for both Science and History. These include:

Science

- Practical enquiry into the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- Describe associated processes and key characteristics in common language, and… technical terminology accurately and precisely
- Ask questions and develop a line of enquiry based on observations of the real world as well as making their own predictions using scientific knowledge and understanding
- Select, plan and carry out the most appropriate types of scientific enquiries to test predictions
- Use appropriate techniques, apparatus, and materials during laboratory work, paying attention to health and safety

History

- Understanding historical concepts, including historical significance
- Gain historical perspectives by placing knowledge into different contexts
- Understand the connections between local, regional, national and international history, between cultural, economic, military, political, religious and social history; and between short- and long-term timescales
- Study of an aspect or site in local history dating from a period before 1066
- Pursue historically valid enquiries
- Understand how different types of historical sources are used rigorously to make historical claims and discern how and why contrasting arguments and interpretations of the past have been constructed
- Make connections and draw contrasts
- Identify significant events, make connections, draw contrasts (focusing on the concepts of change and continuity)

Project history

Workshop 1

February 2023 · SeaCity Museum

- Introductions
- Purpose of the project
- Why integrate science and history? Benefits and approaches
- Comparing the Key Stage 3 Science and History programmes of study
- Why is informal education important? Strategies for integrating informal and formal learning
- Guided tour of the SeaCity Museum
- Sharing initial ideas about the unit

Workshop 2

May 2023 · University of Southampton

- Place and community-based learning
- Disaster and tragedy education
- Developing a skeletal scheme of work for six lessons
- Planning workflow
- Wrap-up

Workshop 3

June 2023 · University of Southampton

- Developing lesson resources
- Exchanging feedback
- Reflections on the project

Remote collaboration

July to September 2023

- Collating teacher and student materials

Additional information

Remembering Titanic: https://www.remembertitanic.com/
SeaCity Museum: https://seacitymuseum.co.uk/

Contact

Wonyong Park (w.park@soton.ac.uk)

Lesson 1 · History · Lesson overview

Why was the Titanic significant to Southampton?

OBJECTIVE 1

To make inferences from individual experiences about why the Titanic was significant to Southampton.

OBJECTIVE 2

To reach a well explained judgement on why the Titanic was significant to Southampton.

Summary of lesson

This is the first lesson in the scheme of work and focuses on why the Titanic mattered to Southampton at the time of its launch in 1912. Pupils will consider this by applying significance criteria to the information they gain and infer from the experiences of individuals connected to the Titanic. This lesson uses the 5 Rs significance criteria, but this can be changed to fit in with what departments and students are used to working with.

The lesson begins with a brief overview of what the Titanic was and the historical context. Pupils will then engage with an interactive map of Southampton, showing where passengers and crew were from in the city and whether they survived the disaster. From this, pupils can begin to discuss why the Titanic was significant.

From here, pupils look at six individuals and apply the significance criteria to each experience. Students should then be able to draw on their knowledge from the lesson to reach an overall and explained judgement on why the Titanic was significant.

RESOURCES REQUIRED

- Lesson PowerPoint
- Significance table
- Individual experiences information

National Curriculum links

This lesson links to the national curriculum aims of:

- 'understanding historical concepts such as… significance'
- 'gain historical perspective by placing their growing knowledge into different contexts, understanding the connections between local, regional, national and international history; between cultural, economic, military, political, religious and social history; and between short- and long-term timescales'.

The lesson links to the content that should be taught by being an example of 'challenges for Britain, Europe and the wider world 1901 to the present day'.

If teaching in Southampton or Hampshire, the lesson also links to the requirement of having a local history study.

Lesson guidance

Eight steps

STEP 1

What do pupils already know?

As this is the first lesson in the scheme of work, the lesson begins with what pupils already know about the Titanic. This is a chance to gauge what knowledge pupils already have and address any misconceptions. Pupils complete a brain dump task, where they write down everything they already know. This could be done as a mind map or list in books, or pupils could write their ideas on post-its and bring them to the board. A summary video is linked to give students an overview, after their ideas have been shared and discussed.

STEP 2

Introduce the significance criteria

This lesson is built around the concept of significance. At this point, the criteria pupils will be working with is shared. Start with some recall of what pupils know significance to mean and where/when they have seen/applied it before in history. This lesson uses Counsell's (2005) 5Rs criteria for Historical Significance. Explain what each of these elements means to students and that they will be applying: revealed, resulted in change and remarkable in the lesson.

This lesson will work with different significance criteria, so please do adapt the slides and resources should you wish to use an alternative to the 5Rs. For a higher ability group, all 5Rs could be used or the class could generate their own criteria.

STEP 3

Southampton at the time of the launch

Now pupils are familiar with what the Titanic was and the significance criteria they are using, the lesson focuses on Southampton at the time of the Titanic's launch. Slide 6 contains some brief context on Southampton in the early 20th century. Pupils could be questioned at this point on the following:

→ What does this reveal about Southampton at the time?

→ Why was Southampton chosen as the port Titanic was to launch from?

→ What would the launch mean for Southampton? (In terms of status, economy, opportunities for residents).

STEP 4

Explore the interactive map

Building on the initial context, pupils will now look at a source: an interactive map of Southampton showing where the people from the city on board the Titanic lived and what happened to them. If teaching in the city, you could look at the area that the school is in or where pupils live. This task should start to get pupils thinking about why the Titanic was significant to Southampton. Pupils could consider the following:

→ Which parts of the city were most of the crew from?

→ Why could this be?

→ What would this mean for these areas?

→ What would the large losses of life mean for these areas?

STEP 5

Pause and reflect

At this point in the lesson, pupils have a chance to reflect on the lesson question and share their thoughts so far. This could be done in a variety of ways, for example mini whiteboards, think-pair-share, post-its.

STEP 6

Main task: six individual experiences

The lesson now moves onto pupils working on the main task independently. The task builds on the thinking pupils will have done up until this point and gets them to apply the criteria revealing, resulted in change and remarkable to six individual experiences. Each pupil will need a copy of the significance table. This can be amended to include further prompt questions should pupils need them.

Pupils are to complete the table using the six profiles. This could be done in several ways. Pupils could be given an individual each, become an expert and then move around the room sharing their individual's experiences and recording what they learn from others. The information could be put around the room and pupils move around. Or pupils could work at desks from the sheet. Below is a list of example inferences pupils might make.

EXAMPLE INFERENCES

Smith	Southampton had a reputation as a port city, many important people from the maritime industry lived/worked there. The Titanic provided opportunities for experienced sailors. The captain being a Southampton resident would have brought pride and status to the city. As captain, Smith would have been a well-known figure and discussed in Southampton following the disaster.
Boxhall	Life could be tough for people in Southampton and the Titanic offered important work and a chance to gain experience and potentially status.
Fleet	There were a variety of roles on the Titanic. As the man who spotted the iceberg, Fleet would have been remarkable both nationally and locally.
Evans / Scarrott	Life could be tough for people in Southampton and the Titanic offered important work and a chance to gain experience and potentially status. The loss of lives would have brought grief to local communities and put pressure on their families due to a loss of income.
Joughin	The port provided work for Southampton residents from a young age. Joughin's experience and unlikely survival would have been remarkable both locally and nationally.

STEP 7

Reach a judgement

Pupils should now be able to reach a judgement on why the Titanic was significant to Southampton. Slide 11 has a few prompts to encourage pupils to think hard. These could be altered or removed depending on the group. This activity could be run as a discussion task or a written one, with written ideas later shared with the class, for example under a visualiser.

STEP 8

Extension: Titanic in Southampton today

If time, pupils can consider and discuss the significance of Titanic to Southampton today using the various monuments around the city as a starting point.

Lesson 1 · Slides

Why was the Titanic significant to Southampton?

Lesson title: Why was the Titanic significant to Southampton?

Objectives:

To make inferences from individual experiences about why the Titanic was significant to Southampton.

To reach a well explained judgement on why the Titanic was significant to Southampton.

1

Brain dump

1. What do you already know about Titanic?
2. Add to your notes using the video

Titanic

2

Similarity spotters!

When we last saw

'Significant'

what did it mean?
what was the context?

3

What makes something significant in History?

Remarkable	The person was talked about at the time.
Resulted in change	Something changed following their actions. This could be positive or negative.
Remembered	We know about this person today.
Revealing	We can learn about the past from them and they tell us things we otherwise might not have known.
Resonant	Links can me made between the person and life today. Their actions continue to affect/shape our lives.

4

What makes something significant in History?

Remarkable	The person was talked about at the time.
Resulted in change	Something changed following their actions. This could be positive or negative.
Remembered	We know about this person today.
Revealing	We can learn about the past from them and they tell us things we otherwise might not have known.
Resonant	Links can me made between the person and life today. Their actions continue to affect/shape our lives.

5

The launch

- Southampton was a major port city and hub of the maritime industry in the early 20th Century.
- The Titanic was built in the Harland and Wolff shipyard in Belfast, but Southampton was its home port.
- Southampton's port facilities were well-developed and could accommodate large ocean liners like Southampton.
- On Wednesday 10th April 1912 shortly after 12noon, RMS Titanic set sail from Southampton's White Star Dock on her maiden voyage to New York.

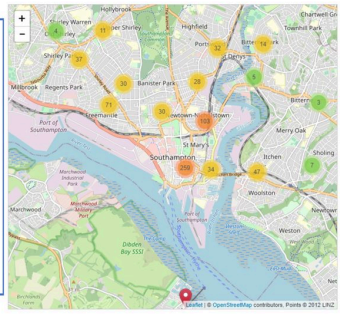
6

Source inference

1. What can we learn from this source about why Titanic was significant to Southampton?

2. Which details from the source are the most useful for telling us that?

3. If we use this source for a different enquiry, which other details could be more relevant?



7

Initial thoughts

Why was the Titanic significant to Southampton?

Example:
I didn't realise...

8

Why was the Titanic significant to Southampton?

Individual focus task

Read about each individual from Southampton and their experience of Titanic.

1. What do they reveal about Southampton at the time Titanic set sail?
2. What can you infer about how Titanic changed the lives of people in Southampton?
3. What can you infer about why Titanic would have been remarkable in Southampton?

9

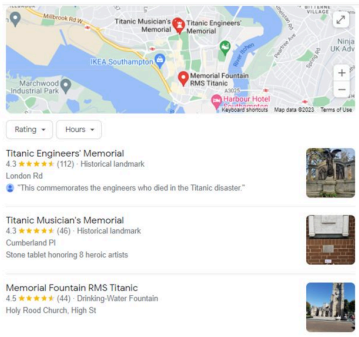
Individual	What do they reveal about Southampton at the time Titanic set sail?	What can you infer about how Titanic changed the lives of people in Southampton?	What can you infer about why Titanic would have been remarkable in Southampton?
Edward Smith			
Joseph Boxhall			
Frederick Fleet			
Alfred Frank Evans			
Joseph Scarrott			
Charles Joughin			

10

Which statement matches your understanding the most?

1. Titanic was significant to Southampton because it created new jobs for the people who lived there.
2. Titanic was significant because it united the city in grief
3. Titanic was significant because it brought in more money to the city of Southampton
4. Titanic was significant to Southampton as a lot of people would have been talking about the city following the ship's launch and sinking
5. I have a different idea and I can explain it…

11



Why is the Titanic significant to Southampton today?

12

Lesson 2 · History · Lesson overview

Why was the sinking of the Titanic a disaster?

OBJECTIVE 1

To use historical evidence related to the sinking of Titanic to reach a causal conclusion.

OBJECTIVE 2

To reach an evaluative judgement as to why Titanic is viewed as a historic disaster.

Summary of lesson

This lesson looks at the actual sinking of the ship and why it then became an event in history that can be categorised as a disaster. The lesson is broken into 3 parts:

1. Basic breakdown of the ship
2. How it actually sank
3. Why it became a 'disaster'

The first two parts can be completed relatively quickly, but the main task is looking at why it is an event in history that can be categorised as 'disaster', with a breakdown of what this means as well as links to other events.

RESOURCES REQUIRED

The resources for this lesson are optional but slides can be taken and used at various points to support knowledge and understanding.

- Images (taken from the slides) for students to either have in their books to refer to.
- The task on slide 11 can be made into a table/other format if it is easier.

National Curriculum links

This lesson provided the opportunity for students to:

- study of an aspect or site in local history dating from a period before 1066
- gain historical perspective by placing their growing knowledge into different contexts with a focus on the concept of a 'disaster'.

There are clear links for schools in Southampton and along the South Coast. This may also be useful for schools in regions which also have connections to Titanic such as Liverpool and Merseyside, Belfast, Cobh and Cork.

Lesson guidance

Five parts

PART 1

Why was the ship thought to be 'unsinkable'?

The lesson is almost split into two parts. The first part looks at why the ship was considered to be 'unsinkable'. This is done through looking at her construction, design and a newspaper article from the time, as well as how this was countered by the ship building company that built the ship. Slides 2, 3, 4 and 5 look into the different reasons for why people thought that it was unsinkable and students can break each of these down. For example, on slide 2 it is important to note that there were 'watertight compartments'.

Questions can be asked around why newspapers have such an impact and so why the belief was widely held, as well as questions around why it was so important for people to believe that it was unsinkable. Can also link to the industrial revolution if this has been previously studied. Slides here can be printed out and annotated if required.

PART 2

How did it sink?

The second part of the lesson looks at why it eventually did sink. The video on slide 6 explains how the ship sank, looking at and linking to the construction and design of the ship as well as some of the technology on board. Students could use this to write notes/questions on what happened as the ship went down. It would be worth spending a bit of time on this as it breaks down well the sinking event itself.

PART 3

What makes an event a disaster?

Then students are going to begin to break down the definition of a disaster and look at all the ways the sinking of the Titanic became one. This could also be moved to closer to the start of the lesson depending on how key terms, words or language are taught. Examples of other disasters could be given to give students comparison to other events, such as a volcanic eruption.

PART 4

Why was the ship unprepared?

Students are then going to watch another short video on all the reasons for why the ship was unprepared to deal with different events happening, which will lead them to think about why this became such a massive incident. This can be mind-mapped or bullet-pointed, whichever way the teacher prefers. Students could find links between different reasons as well as think of any questions they might have for why these things weren't sorted and/or why it ended as it did.

PART 5

Sort the evidence

Lastly, using the information they have collected as well as new information on the board, they are going to categorise their ideas into the following sections:

Before departure **During the collision** **After the collision**

Things to consider here would be questions around:

1. Could this have been avoided?
2. If so, how?
3. How would people feel if they knew the Titanic was not prepared as well as it could have been?

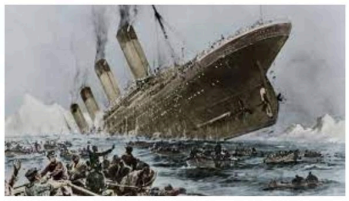
On Slide 12, there is a quote from a passenger from the ship and this can be discussed if there is time.

Why was the sinking of the Titanic a disaster?

Title – Why was the sinking of the Titanic a disaster?

Do now

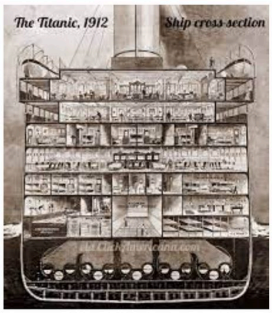
Bullet point x3 ways in which the Titanic made an impact to Southampton



1

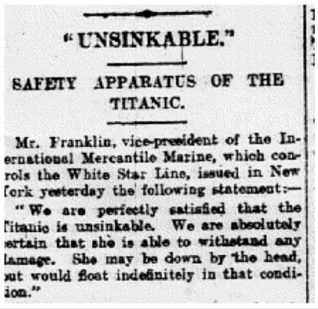
At the time of her construction, the Titanic was the **largest ship ever built**. It was 230m long, 25 stories high, and weighed 46,000,000 kg.

The ship's modern design and technology included sixteen **watertight compartments** in her lower section that could easily be sealed off in the event of a punctured hull and deemed her **unsinkable**.



2

Why did they think she was unsinkable?



"UNSINKABLE."

SAFETY APPARATUS OF THE TITANIC.

Mr. Franklin, vice-president of the International Mercantile Marine, which controls the White Star Line, issued in New York yesterday the following statement:—

"We are perfectly satisfied that the Titanic is unsinkable. We are absolutely certain that she is able to withstand any damage. She may be down by the head, but would float indefinitely in that condition."

3

Why did they think she was unsinkable?

- The shipbuilders Harland and Wolff insist that the Titanic **was never advertised** as an unsinkable ship.
- They claim that the 'unsinkable' myth was the result of people's interpretations of articles in the Irish News and the Shipbuilder magazine. They also claim that **the myth grew after the disaster.**

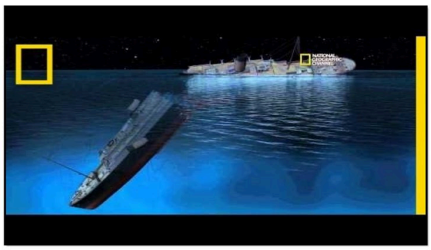
4

Yet, when the New York office of the White Star Line (the company that owned the ship) was informed that Titanic was in trouble, White Star Line Vice President Franklin announced:

"We place absolute confidence in the Titanic. We believe the boat is unsinkable."

5

So, how did the unsinkable sink?



6

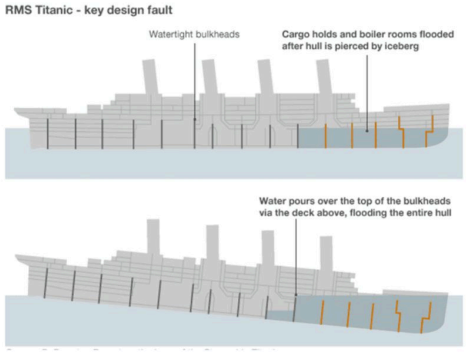
Why did it become such a disaster?

The definition of a disaster is –

a sudden accident or a natural catastrophe that causes great damage or loss of life.

Can you think of another example?

7



8

Why was the sinking of the Titanic a disaster?

Task

From this video, mind map as many ways as you her about how unprepared the ship was

1. Why did it sink?
2. Why was it such a disaster?

9

How could it be argued that this becoming a disaster could have been avoided?

10

Why was it such a disaster?

Using the reasons you have come up with, along with mine below, you need to do the following:

Categories your points into:

Before departure
During the collision
After the collision

Answer in your books giving multiple reasons as your evidence – **Why did the sinking of the Titanic become such a disaster?**

1. Iceberg
2. Steel Rivets
3. Warnings ignored from other ships nearby
4. Not enough lifeboats
5. Weren't filling up the lifeboats
6. Not enough searchlights
7. Going too fast
8. Other ships had radios turned off so could not hear Titanic distress call
9. Temperature of the sea (-2)
10. No second skin
11. Lookout did not have binoculars

11

"I thought it would be a safe steamship, and I had heard it would not sink."

Margaret Devaney, *Titanic* survivor

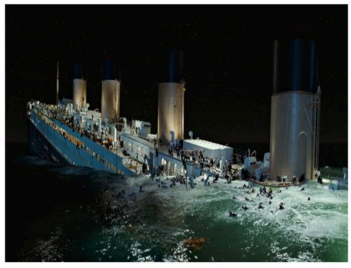
- Whatever the origin of the belief, there is **no doubt** that people did believe Titanic to be unsinkable.
- Passenger Margaret Devaney said "I took passage on the Titanic for I thought it would be a safe steamship and I had heard it could not sink."

12

Reflection...

What was the main 3 reason that this became such a disaster?

Support your choices with evidence



13

Lesson 3 · History · Lesson overview

Who was to blame for the sinking of the Titanic?

OBJECTIVE 1

To construct an interpretation as to who was most to blame for the Titanic disaster.

OBJECTIVE 2

To compare and critically analyse British and American enquiries.

Summary of lesson

Throughout this lesson, students will build on their prior learning from the previous lessons looking at why the Titanic disaster happened and why it was significant. Using the different cause factors identified in lesson 2, students will now apportion blame for these errors, building to them creating their own interpretation of "Who was to blame". Students will then have the chance to compare their interpretation to two real life views, that of the US and British enquiries into the disaster.

RESOURCES REQUIRED

- Lesson PowerPoint
- Resource 1: Worksheet on slide 8

National Curriculum links

This lesson links to the National Curriculum aim for pupils to:

- pursue historically valid enquiries
- understand how different types of historical sources are used rigorously to make historical claims and discern how and why contrasting arguments and interpretations of the past have been constructed
- make connections, draw contrasts focusing on the concepts of differing interpretations.

If in the local area to Southampton or another Titanic site, this lesson provides the opportunity for students to study a local history study linking to the:

- challenges for Britain, Europe and the Wider World 1901 to the present day

Lesson guidance

Slide by slide

SLIDES 1–2

Recall quiz

Five question recall quiz for students to complete at the start of the lesson. This is in keeping with Rosenshine's Principles of Instruction (2012) which suggests that regular daily review and checking for students' understanding are both vital for new learning to take place. Answers on slide 2.

SLIDE 3

Learning objectives

Display Learning Objectives to students and explain the rationale for today's learning.

SLIDE 4

New vocabulary

Introduce new vocabulary, "Culpable" and "Interpretation". We are going to be creating our own interpretation as to who was most to blame (or in other words, most culpable) for the sinking of the Titanic, as well as looking at different interpretations from the US and British enquiries.

SLIDE 5

Think back

Ask students to think back to the previous lessons. Which people have we met that might have played a part in causing the Titanic to either sink, or led to it being such a disaster? At this point, students might not recall specific names or people, but might be able to recall 'The Captain', 'The lookout', 'The Designer' etc.

SLIDE 6

Meet the six key people

Now to put some names to these positions. Introduce students to our 6 key people that we are going to consider as possibly being most culpable for the disaster.

WHO IS MOST CULPABLE?

Captain Smith Ship's captain	Firstly, should he take the blame as the ship's captain?
Thomas Andrews Ship's designer	There were several changes that could have been made to the design (such as waterproof bulkheads, stronger rivets and more lifeboats) which, if he had incorporated these into his design, would have mitigated the disaster.
William Murdoch First Officer	Perhaps the blame should lie with him, as he had been in charge at the time when it hit the iceberg?

J Bruce Ismay Chairman, White Star Line	Another often cited culprit. Was it his cost cutting measures, and demand for increased speed that led to the disaster?
Frederick Fleet Lookout	Everyone knows the Titanic sank because it hit an iceberg, so surely some of the blame should be given to the lookout who failed to spot it?
Stanley Lord Captain of the nearby California	And finally, what about his culpability? He ignored the distress calls of the Titanic. If he had intervened, the death toll would likely be dramatically reduced.

SLIDE
7

The song of blame

The embedded video clip is a song from 'Titanic: The Musical', sung by Andrews, Smith and Ismay. In it, they all blame each other for the disaster. Ask students to listen through to the song and read the accompanying lyrics. What reasons do they each put forward for blaming the others?

SLIDE
8

Worksheet

Print for students. Students to read the information in the first column. In the second column, ask them to fill in who this suggests was to blame, as well as giving an explanation as to why. In the final column, pupils can reflect on if there is anything that could have been done differently to reduce the severity of the disaster.

SLIDE
9

Their own interpretation

Ask students to create their own interpretation of who was most culpable for the disaster, as well as explaining why they have taken this view.

SLIDES
10–11

The two enquiries

Following the disaster, there were enquiries carried out by both the British and the Americans. On these slides you will see summaries of their findings. Ask pupils who each enquiry blames for the disaster, do they agree?

SLIDE
12

Consolidate

Consolidatory writing activity, pupils to answer the 3 questions. This can then be fed back as a class.

Who was to blame for the sinking of the Titanic?

Lesson 3:Who was most to blame for the sinking of the Titanic?

Recall Quiz

1. What was one design flaw for the Titanic that contributed to it being such a tragedy?
2. Which company owned the Titanic?
3. What was J Bruce Ismay alleged to have ordered the captain to do?
4. Why didn't the California (a nearby ship) help?
5. How much would a first class ticket have been in modern money?

1

Lesson 3:Who was most to blame for the sinking of the Titanic?

Recall Quiz

1. What was one design flaw for the Titanic that contributed to it being such a tragedy? Watertight Bulkheads
2. Which company owned the Titanic? White Star Line
3. What was J Bruce Ismay alleged to have ordered the captain to do? Increase ship's speed
4. Why didn't the Californian (a nearby ship) help? The distress signal was never received as Californian turned their radio off
5. How much would a first class ticket have been in modern money? £850 in 1912 equating to £105,000 in today's money

2

Lesson 3:Who was most to blame for the disaster of the Titanic?

Objectives:

To construct an interpretation as to who was most to blame for the Titanic disaster

To compare and critically analyse British and American enquiries

3

CORE VOCAB		
Culpable	When someone is to blame for something	
Interpretation	The different viewpoints people have of an event	

4

Who was to blame for it being such a major **disaster?**

5

Captain Smith
The Ship's Captain

Thomas Andrews
The Ship's designer

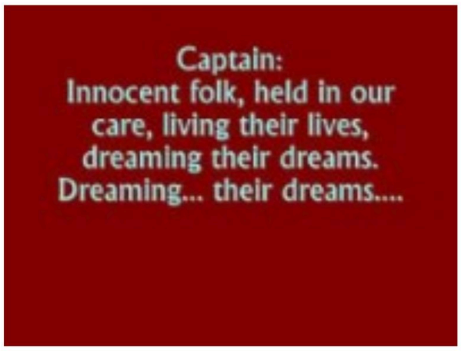
William Murdoch
First Officer

J Bruce Ismay
Chairman of White Star Line

Frederick Fleet
The Lookout

Stanley Lord
Captain of the Californian

6



7

Problem	Who was to blame? Why?	What could have been done differently?
Many lifeboats were being launched with very small numbers of people being on them. If they had been filled up, many more lives could have been saved. Only 50 members of the crew had been trained to man the lifeboats and there had been no drill		
The ship only had 20 lifeboats, which was only enough for about half of the passengers. There should have been more, but they were removed to make more space for first class passengers		
Bruce Ismay was overheard suggesting to Captain Smith that he should sail the ship at full speed so as they could reach New York sooner than expected. This meant that the ship did not have enough time to steer clear of the iceberg.		
The lookouts were not provided with binoculars as these had been locked away. The ship was also not fitted with a search light, making it impossible to see the iceberg.		
The nearest ship, the California, sent out an ice berg warning. However, they then turned their radios off, meaning the Titanic could not contact them. When they saw the flares, they assumed they were fireworks and ignored them. If they had noticed the distress signals, there would have been enough time to save everyone on board		
First Officer William Murdock had been left in charge of the ship. When he was notified of the ice berg straight ahead, he steered to try and avoid it, meaning the ice berg hit the side of the ship, smashing it open. Some experts believe if they had hit it head on, they would have broken through it and caused no damage to the ship.		
There were some major errors with the design and build of the ship. One of these is that poor quality rivets were used to connect the panels, which broke easily. Secondly, the water tight compartments were smaller than they should have been to make more room for first class passengers.		
Although Smith was an experienced Captain, he had never sailed a ship as large as the Titanic. He nearly collided with another ship in the first few days, and had previously had this same problem when captaining the Olympic. He also ignored 7 iceberg warnings and was actually asleep when it hit the iceberg.		

8

Who was to blame for the sinking of the Titanic?

1. Who do you think was to blame?

2. Why?

9

American Inquiry

The report's key findings were:
•A lack of emergency preparations had left *Titanic*'s passengers and crew in "a state of absolute unpreparedness", and the evacuation had been chaotic: "No general alarm was given, no ship's officers formally assembled, no orderly routine was attempted or organized system of safety begun."
•The ship's safety and life-saving equipment had not been properly tested.
•*Titanic*'s Captain Edward Smith had shown an "indifference to danger [that] was one of the direct and contributing causes of this unnecessary tragedy."
•The lack of lifeboats was the fault of the British Board of Trade, "to whose laxity of regulation and hasty inspection the world is largely indebted for this awful tragedy."
•The SS *Californian* had been "much nearer [to *Titanic*] than the captain is willing to admit" and the British Government should take "drastic action" against him for his actions.
•J. Bruce Ismay had not ordered Captain Smith to put on extra speed, but Ismay's presence on board may have contributed to the captain's decision to do so.

The report was strongly critical of established seafaring practices and the roles that *Titanic*'s builders, owners, officers and crew had played in contributing to the disaster. It highlighted the arrogance and complacency that had been prevalent aboard the ship and more generally in the shipping industry and the British Board of Trade. However, it did not find White Star Line negligent under existing maritime laws, as they had merely followed standard practice, and the disaster could thus only be categorised as an "act of God"

10

British Inquiry

The report found that *Titanic*'s sinking was solely the result of colliding with the iceberg, not due to any inherent flaws with the ship, and that the collision had been brought about by a dangerously fast speed in icy waters:
The Court, having carefully inquired into the circumstances of the above mentioned shipping casualty, finds, for the reasons appearing in the annex hereto, that the loss of the said ship was due to collision with an iceberg, brought about by the excessive speed at which the ship was being navigated."

It also found that the lookout being kept was inadequate given the navigational hazards *Titanic* faced, and that the ship's officers had been complacent. There were too few lifeboats available and they had not been properly filled or manned with trained seamen, though they had been lowered correctly. The inquiry concluded that *Californian* "could have pushed through the ice to the open water without any serious risk and so have come to the assistance of the *Titanic*. Had she done so she might have saved many if not all of the lives that were lost

The Mersey report did not condemn the failures of the Board of Trade, the White Star Line or *Titanic*'s captain, Edward Smith. The report found that although Smith was at fault for not changing course or slowing down, he had not been negligent because he had followed long-standing practice which had not previously been shown to be unsafe. It concluded that Smith had merely done *"only that which other skilled men would have done in the same position".*

11

1. Who does the American Inquiry blame for the Titanic disaster? Why?
2. Who does the British Inquiry blame for the Titanic disaster? Why?
3. Why do you think these might have different interpretations about who was to blame?

12

Lesson 4 · History · Lesson overview

How far did the Titanic disaster have an impact on the world?

OBJECTIVE 1

To make inferences from historical sources about the local and national impact of the Titanic disaster.

OBJECTIVE 2

To analyse the impact on sailing and shipping by identifying changes over time.

Summary of lesson

This lesson will be focusing on the impact the Titanic disaster had on a local, national and international level, utilising the concepts of change and continuity and also source analysis. The lesson begins by looking at the impact it had on the city of Southampton, as well as including national links such as charity fundraising that the people of the UK supported.

From this, students will predict what they think would change after the sinking of the Titanic thinking about its impact. To test these predictions, students will analyse the change and continuity to shipping by looking at legal developments regarding safety measures as well as looking at other disasters. Students should be able to evaluate that although there was considerable change to shipping on an international level, disasters still occur due to human error, unexpected conditions and naturally occurring faults.

RESOURCES REQUIRED

- Lesson PowerPoint
- Resource 1: Images 1–6
- Resource 2: Source worksheet
- Resource 3: Information cards
- Resource 4: Line of change and continuity

National Curriculum links

This lesson links to the National Curriculum aims of:

- gain historical perspective by placing their growing knowledge into different contexts, understanding the connections between local, regional, national and international history
- pupils to understand the process of change
- identify significant events, make connections, draw contrasts (focusing on the concepts of change and continuity).

If in the local area to Southampton or another Titanic site, this lesson provides the opportunity for students to study a local history study linking to the:

- challenges for Britain, Europe and the Wider World 1901 to the present day.

Lesson guidance

Three steps and a plenary

STEP 1

The Titanic Relief Fund cheque

There is an image of a cheque made out to the Titanic Relief Fund for £1 and 10s. Ask students to make some inferences from the source about the impact of the Titanic being aware that some students may not know what a cheque is. Use probing questions to draw out ideas.

Reveal the provenance of the source: a cheque donated to the Titanic Relief Fund, a national charity set up following the disaster to support the families and victims of the sinking. The donation of £1 and 10s is around the equivalent of £120, so a sizeable donation has been made. Here you can further probe the students about what this reveals about the impact of the Titanic, raising ideas about people's feelings towards supporting the relief fund. You could draw comparisons here with charities that people donate to and why (Children in Need, Race for Life etc).

STEP 2

Local and national impact

This task is to make inferences from historical sources about the local and national impact of the Titanic disaster. Explain to the students that they are going to use images from the Sea City Museum in Southampton, to explore how Southampton and the UK reacted to the disaster to identify the impact it had at the time. Questions to use are below:

1. Does the source show immediate/short term/long term impact?
2. Local or national?
3. What can we learn about the impact it had on Southampton and the UK?

Use Source 1 as a modelled example. Students can then work independently looking at the other sources and grasping an understanding of the impact that the Titanic had on both the local and national level.

After the source analysis, question students about their findings from the sources. What have they revealed about the impact of the Titanic? What might be the consequences of these? These questions may also be useful to use during the source task to challenge students and/or prompt their thinking.

EXAMPLE QUESTIONS

→ The date on the cheque is 1917, what does that reveal to us?

→ If there were husbands lost, what did this mean for the families left behind?

→ What does the clothing of the people in source 3 reveal to us about the impact and expectations of news?

→ A football match had its date moved – why might they have moved the date?

Students should get the idea that the main impact of the Titanic was the loss of life in the city and that there was huge national support for raising money and to memorialise those that were lost.

STEP 3

Change and continuity

Following their analysis of the impact of the disaster, students are going to look at what the enquiries suggested should change to avoid another disaster. To begin this analysis, ask students: With the impact of the Titanic stretching across the UK, what changes do you think there would be after the disaster?

Following their ideas show them the recommendations that were made. These are a brief summary for students but further information can be found at https://www.titanicinquiry.org/

Using the recommendations identified, students should analyse what changes have taken place since the Titanic disaster and what has continued. Provide students with a set of information cards. Students are going to use a line of change and continuity to look at how sailing and shipping has or has not changed over time. Ask them to read the information and place the information cards along the line according to the level of change and continuity.

When modelling the task, probe students with the following questions:

EXAMPLE QUESTIONS

- → Does the event show change or continuity?
- → If change – is it considerable change?
- → Is it law or a recommendation?
- → Is it national or international?
- → How might this impact on the change it could have?
- → Have things really changed over time – has anything stayed the same?
- → What continuities can you find? Why are there still continuities with disasters? What themes come from the events that show there are continuities?

Students should be able to identify that safety measures and technology have changed since the disaster, and that laws to improve safety have been made. They should also be able to evaluate that this does not always work in practice and that disasters still happen for different reasons. After completion, pose the question: 'What does this new information tell us about the impact of the Titanic?'

FINAL STEP

Plenary

This plenary is for students to finalise their evaluations on the change and continuity that the Titanic disaster has had on shipping. Students can do this in a number of ways depending on the time allocated.

1. Students could complete a formal piece of writing on their findings about the impact (locally, nationally or internationally) or their views on change and continuity producing an explanation on their view.
2. Students could explain their position with regards to how far they agree there was change. This could be done verbally, physically or written.
3. Students could be introduced to more philosophical questioning or discussions around disaster, such as "Why could the lessons learnt from the Titanic not prevent further disasters".

Lesson 4 · Slides

How far did the Titanic disaster have an impact on the world?

Lesson: How far did the Titanic disaster have an impact on the world?

Objectives:

To make inferences from historical sources about the local and national impact of the Titanic disaster.

To analyse the impact on sailing and shipping by identifying change and continuity following the Titanic disaster.

1

Task: Look at Source A; what can you infer from the source about the local impact of the sinking of the Titanic?

2

This is a cheque for one pound and ten shillings made out to the "Titanic Relief Fund". In 2023, this would be the equivalent of around £120.

What does this reveal about the impact of the Titanic?

3

The Titanic Relief Fund

This was a charity set up the Mayors of Southampton and London, the Daily Telegraph along with support from some American companies, and it provided support for those that had suffered after the disaster.

Many families lost their main source of income due to the death of the male in the household.

It was in business until 1958.

4

Task focus: To make inferences from historical sources about the local and national impact of the Titanic disaster.

Using the sources, students are going to explore how Southampton and the UK reacted to the disaster to identify the impact it had at the time. Questions to use are below or on the worksheet. Use slide 1 to model the first example - the cheque from the starter task.bDoes the source show:

1) Immediate/short term/long term impact?
2) Local or national
3) What can we learn about the impact it had on Southampton and the UK?

5

	Does the source show Immediate/short term/long term impact?	Does it demonstrate a local or national impact?	What can we learn about the impact it had on Southampton and the UK?
1			
2			
3			
4			
5			
6			

6

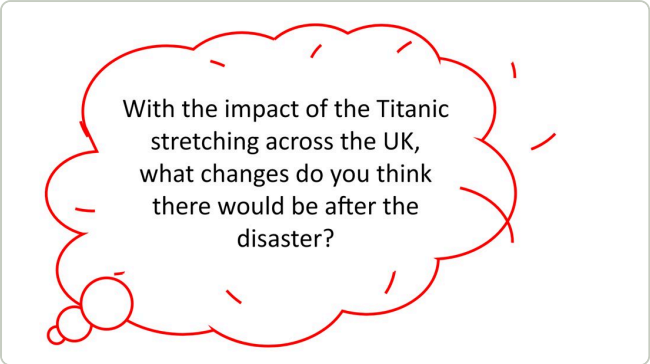
	Does the source show Immediate/short term/long term impact?	Does it demonstrate a local or national impact?	What can we learn about the impact it had on Southampton and the UK?
1	Short term	National	People were still donating money to the charity in 1917, 5 years after the disaster showing there was still a need from the families affected.
2			
3			
4			
5			
6			

7

Source 1

8

How far did the Titanic disaster have an impact on the world?



9

Recommendations from the British and American Inquiries

To provide sufficient lifeboats for all passengers
For radios to be manned 24 hours a day
For regular drills to be completed on board
To reduce speed in bad weather.

10

Task focus: To analyse the impact on sailing and shipping by identifying changes over time.

Place the information cards along the line, what has changed over time?

Continuity Change

11

Task focus: To analyse the impact on sailing and shipping by identifying changes over time.

What does this new information tell us about the impact of the Titanic?

Continuity Change

12

Plenary: What lessons have been learned from the Titanic disaster?

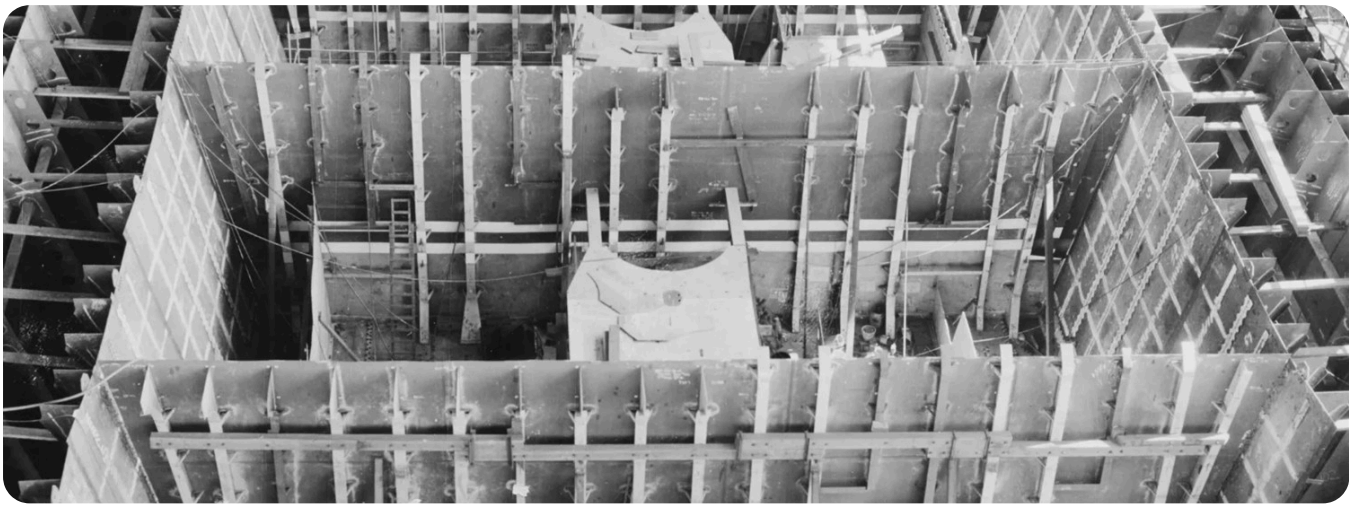
Students can do this in a number of ways.

1. Complete a formal piece of writing detailing your findings about the impact (locally, nationally or internationally) or your views on change and continuity.
2. Explain your position with regards to how far you agree there was change. This could be done verbally, physically or written.
3. Write your response to the following question: "Why could the lessons learnt from the Titanic not prevent further disasters?".

13

Lesson A · Science · Lesson overview

Watertight bulkheads



OBJECTIVE 1

Describe the function of bulkheads.

OBJECTIVE 2

Investigate their effectiveness.

OBJECTIVE 3

Evaluate evidence from an experiment.

Summary of lesson

Students investigate how a watertight bulkhead affects flooding by comparing two model ships. They record observations, compare repeated trials and evaluate the limitations of the model.

EQUIPMENT

- Six similar waterproof drinks cartons
- Waterproof card or plastic
- Waterproof tape
- Scissors
- Ruler
- Pencil or hole punch
- Resealable waterproof bags
- Modelling clay
- A balance if available
- A stopwatch
- A large water-filled plastic box

National Curriculum links

Practical scientific enquiry: use appropriate apparatus, control variables, record observations and draw conclusions. Use scientific terminology to explain forces, floating and the spread of flooding.

Lesson guidance

STEP 1

Introduce the lesson

Ask students what they know about Titanic and why it sank. Explain that bulkheads restrict the spread of flooding. A floating ship displaces water whose weight balances its own.

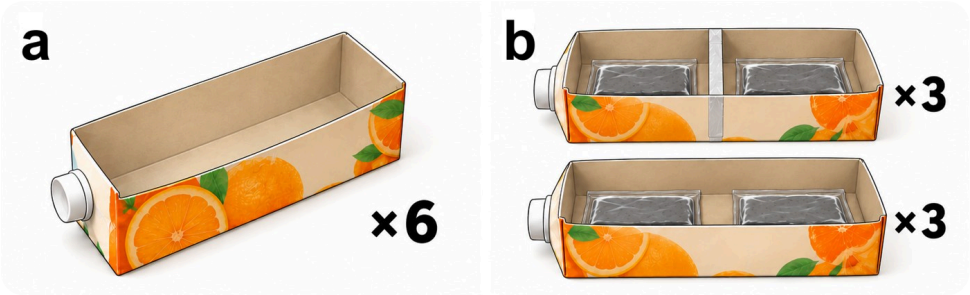
STEP 2

Prepare the two models

Cut away one long side of each carton. Make three boats with a divider and three without. Fit each divider across the middle, sealing it to the bottom and both sides. Test the seal with water, then empty and dry the boat.

a Prepare the carton

b With and without bulkheads



STEP 3

Prepare and float both models

Place flat bags of clay in matching positions. Match each complete boat's mass and balance, including the divider. Make a small hole near the same end of each boat, about 1.5 cm above the bottom, and cover it with waterproof tape. Float each boat and check that the hole is below the waterline and the starting depth is similar.

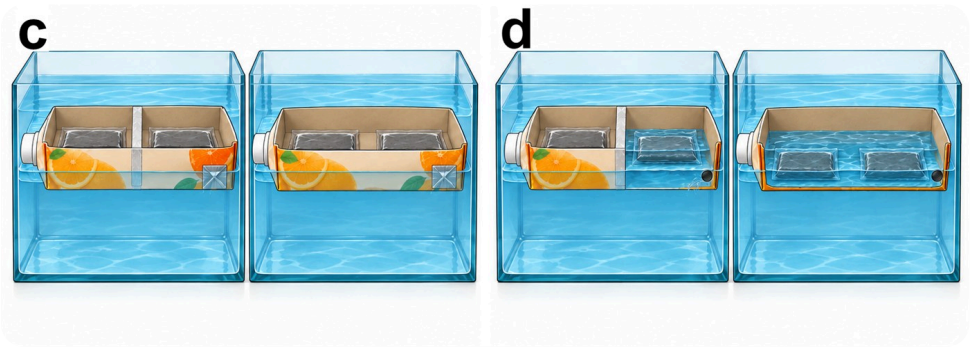
STEP 4

Test both models

Remove the tape from the floating boat and start the stopwatch. Stop when the outside water first reaches the rim, or after 5 minutes. Record where water spreads, any tilt or capsize, and whether the boat is still afloat. Test three fresh boats of each type.

c Float both models

d Test both models



In each panel, the boat with a bulkhead is on the left. The cutaways show possible results; actual outcomes may differ.

STEP 5

Compare and discuss

Compare the three trials for each type. Discuss whether the bulkhead changed where water spread or how long the boats stayed afloat, and identify any difficulties in keeping the test fair.

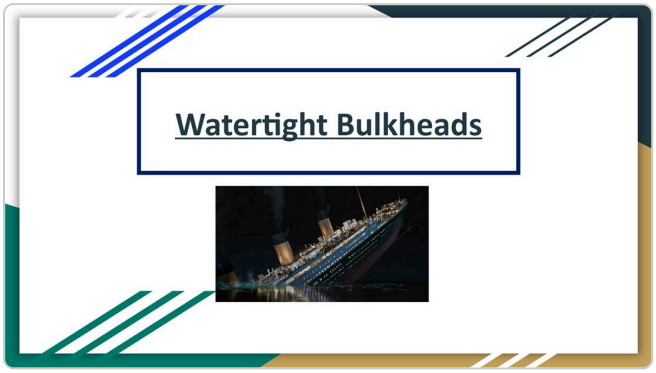
TEACHING NOTES

A sealed bulkhead may confine floodwater and help the boat remain afloat longer, but this is not guaranteed. Check the seal, load, hole size and position, starting waterline and whether water spills over the divider. Record “still afloat after 5 minutes” where appropriate.

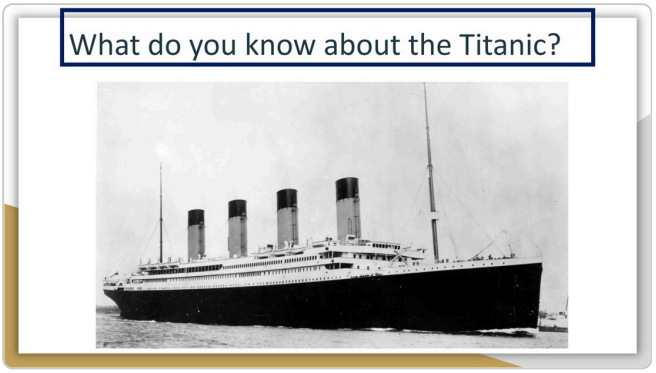
Floodwater increases the combined weight of the boat and water, so the boat settles deeper. Titanic sustained damage across several forward compartments, and water could spread above bulkheads as the bow settled. This single-hole model is a simplification.

Lesson A · Slides

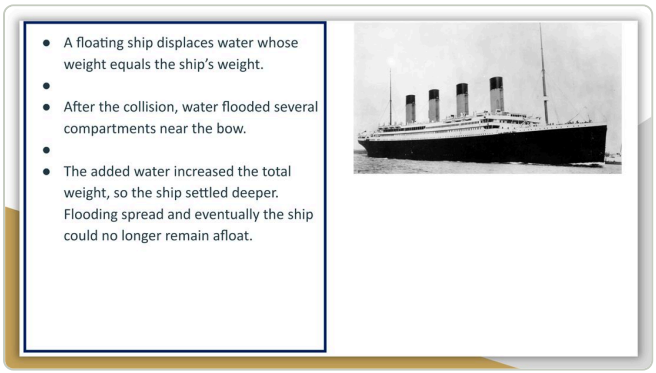
Watertight bulkheads



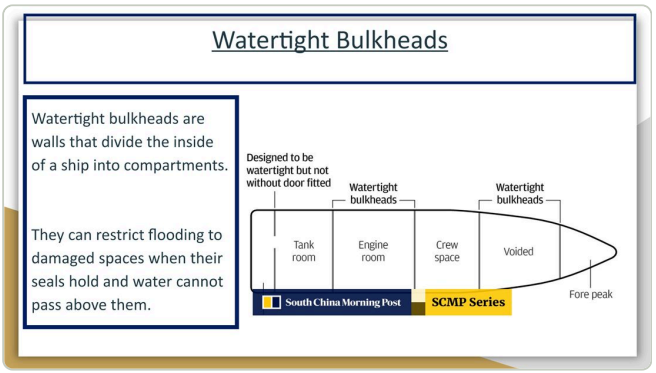
1



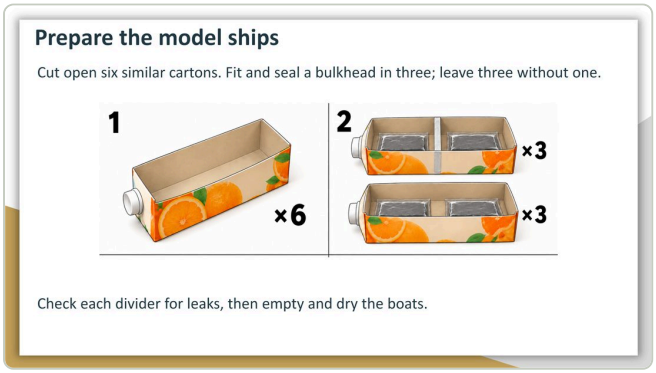
2



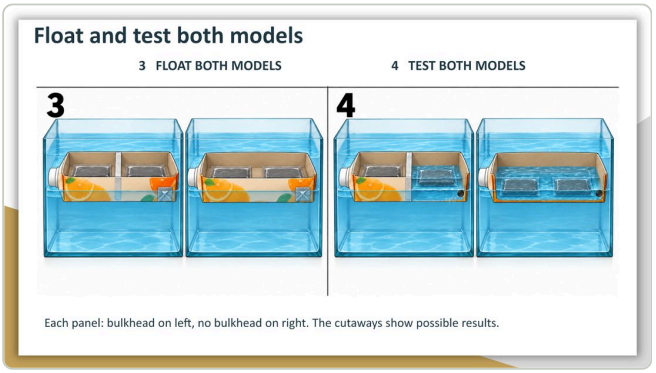
3



4



5



6

Method

1. Put flat bags of clay in matching positions. Match the complete boats' mass and balance.

2. Make equal-sized holes at the same end of each boat, about 1.5 cm above the bottom. Cover it with waterproof tape.

3. Float a boat. Check the hole is below the waterline, then remove the tape and start the timer.

4. Record where the water spreads and stop when outside water reaches the rim, or after 5 minutes. Note any capsize.

5. Test three fresh boats of each type and compare the results.

7

Variables

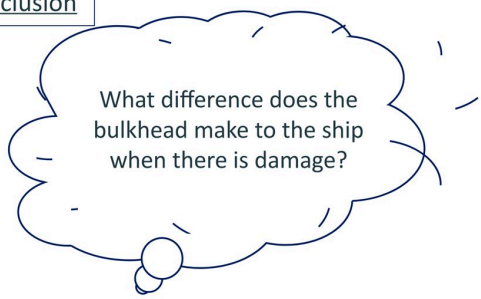
Independent variable: presence or absence of a bulkhead

Dependent variable: time until the outside water reaches the rim; record where water spreads and whether the model stays afloat.

Control variables: model size, total mass and balance, hole size and position, starting waterline and water depth.

8

Conclusion



9

The watertight bulkheads on the Titanic

Titanic had 15 major transverse watertight bulkheads, dividing the lower hull into 16 main compartments. Some openings had watertight doors.

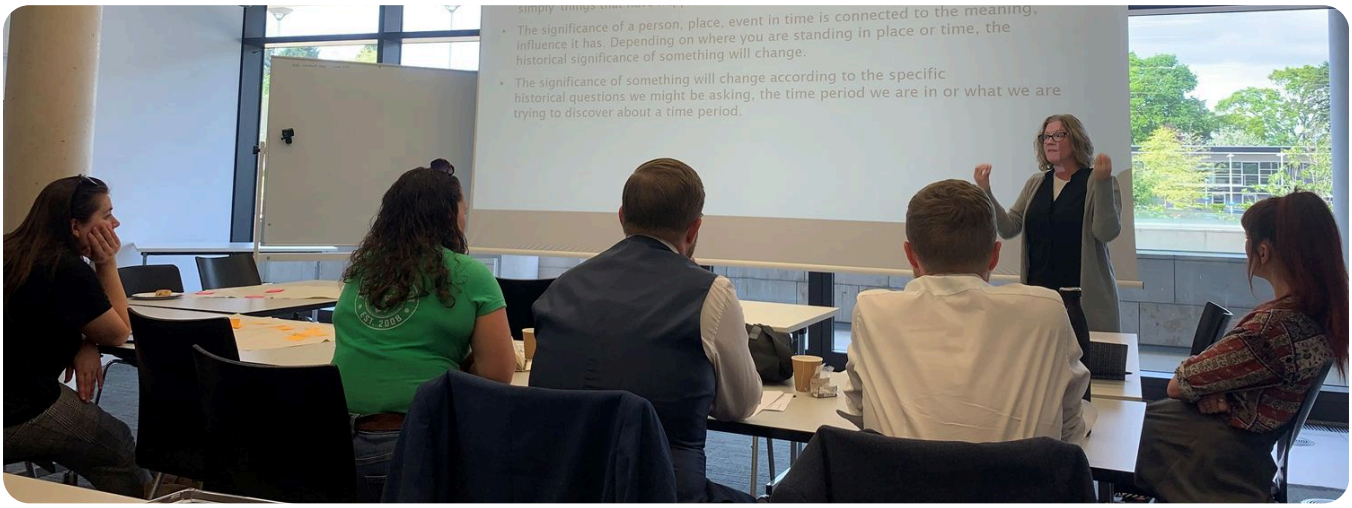
The collision damaged several forward compartments. Five flooded heavily; damage also extended into the next compartment.

As the bow settled deeper, water could flow above the tops of bulkheads into further compartments. The carton model has just one hole, so it simplifies what happened.

10

Lesson B · Science · Lesson overview

Keeping afloat



AIM 1

To investigate different 'anti-sinking' ideas.

AIM 2

To evaluate the effectiveness of different 'anti-sinking' ideas.

Summary of lesson

This lesson is aimed at coinciding with the correlating history lesson ('Why did the sinking of the Titanic become a disaster?'), although this is not essential. It is to follow on from a lesson on watertight bulkheads for students to put to the test their own theories on how they could keep their own 'ship' afloat.

EQUIPMENT

- Lesson PowerPoint
- A large cardboard drinks carton (e.g., 1 litre juice carton)
- Scissors
- Ruler
- Stopwatch
- Waterproof tape
- Two large plastic storage boxes (larger than 10 litre) filled with tap water (to simulate water tanks)
- Resealable waterproof bag
- White clay or play-dough

National Curriculum links

This lesson provided the opportunity for students to practise their experimental skills and investigations. Students will be able to:

- ask questions and develop a line of enquiry based on observations of the real world as well as making their own predictions using scientific knowledge and understanding.

This lesson also allows them to:

- select, plan and carry out the most appropriate types of scientific enquiries to test predictions
- use appropriate techniques, apparatus, and materials during laboratory work, paying attention to health and safety.

They will also be able to record their results and come to their own conclusions at the end.

If it is not possible to align this lesson with the accompanying history content due to curriculum restraints, this lesson can be built into a unit on forces or density (floating and sinking).

Lesson guidance

A practical lesson

PART 1

Recall the previous lesson

This is a practical lesson with the two aims shown at the start of this overview. To begin with, students are expected to complete a factual recall of the previous lesson in order to use that knowledge in today's lesson. This will not take long and can be completed either through written or verbal answers. To support this, on Slide 4 there is a diagram that can be explained if needed.

PART 2

Prepare for the practical

Once the aim on Slide 5 has been explained, students can begin to prepare for their practical by gathering their resources.

PART 3

Record, conclude and link back

It is important to note the students will be expected to record their findings on the results table on Slide 7 whilst they are working so they can then write their conclusions at the end. This can finally be linked back to the Titanic right at the end where students can see if any of their ideas could have potentially helped the Titanic before it sank.

TEACHING NOTES

Students can manipulate the mass and distribution of clay (representing cargo and passengers) and the number and position of bulkheads to explore what variables can affect the flooding of a ship. They should be able to control the variables they are not testing.

Keeping afloat

Lesson B
Keeping Afloat

1

Learning Objectives

To investigate different ‘anti-sinking’ ideas

To evaluate the effectiveness of different ‘anti-sinking’ ideas

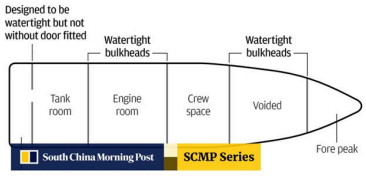
2

- What is the purpose of a watertight bulkhead?
- What was the independent variable?
- What was the dependent variable?
- What were the control variables?

3

Watertight Bulkheads

Watertight bulkheads are vertically designed watertight divisions/walls within the ship's structure to avoid intake of water in the compartment if the adjacent compartment is flooded due to damage in ship's hull



4

Aim

Can you find a way to keep the ship afloat when the hull is damaged?

5

Method

REMAKE YOUR CARTON SHIP

POKE A HOLE IN THE HULL

CAN YOU FIND A WAY TO KEEP THE SHIP FLOATING?

6

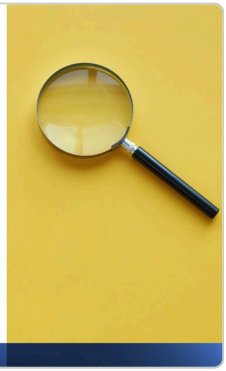
Results table

Idea to prevent sinking	Time to sink (s)

7

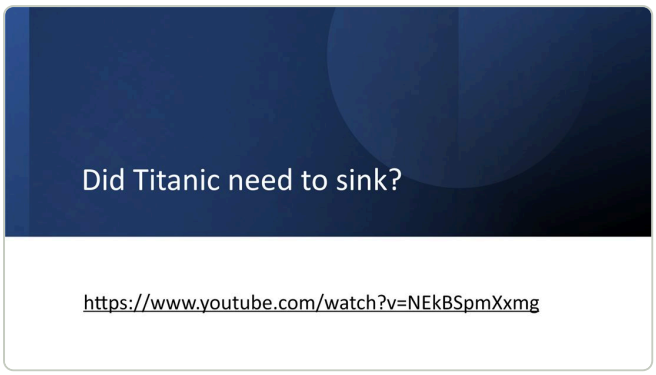
Conclusion

- Did any of your ideas work?
- Can you link your ideas to the Titanic. Could they have done something similar?



8

Keeping afloat



9

Remembering Titanic Lessons © 2023 by Wonyong Park, Neta Shaby, Rachele Newman, Megan Barton, Christopher Dale, Ashleigh Fair, Natalie Harrison, Mary Shepherd and Christopher Zieba is licensed under CC BY-NC-SA 4.0. You can share and adapt the materials, as long as you give appropriate credit and do not use them for commercial purposes.