

Years 6 & 7

# Unsinkable

## Thematic Unit



# Contents

<b>About this Thematic Unit</b>			1
<b>Section 01</b> <b>The Titanic Story</b>	Activity One	Who Knows What?	5
	Activity Two	Unsinkable Sources	6
	Activity Three	Unsinkable Opinions	7
	Activity Four	Who's Aboard?	9
	Activity Five	Plotting a Course	10
	Activity Six	The Legacy of the Titanic	11
	Activity Seven	Iceberg Ahead!	12
<b>Section 02</b> <b>Unsinkable?</b>	Activity Eight	Sorting Sinkers	15
	Activity Nine	Floating Around	16
	Activity Ten	Fruit Float	17
	Activity Eleven	Container Challenge	18
	Activity Twelve	Dead Sea Float	19
	Activity Thirteen	Raise the Rafters - The Great Raft Challenge	21
<b>Section 03</b> <b>Connecting the Learning</b>	The Arts		24
	Personal Development and Mutual Understanding		25
	Physical Education		27
	Mathematics and Numeracy		28
	Language and Literacy		29
<b>Resources</b>			31

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# About this Thematic Unit

In this thematic unit, children will explore the Titanic disaster, including the facts, opinions and myths surrounding this ever relevant and well known story. They explore how its legacy is 'unsinkable' today and how it will be carried on in the future.

Children are challenged to form and express opinions and make decisions, to explore the qualities of others and to make considered and rational judgements.

The second section of the Unit enables the children to investigate floating and sinking. They will have opportunities to plan, predict, carry out, record and make deductions based on a number of interesting and challenging activities.

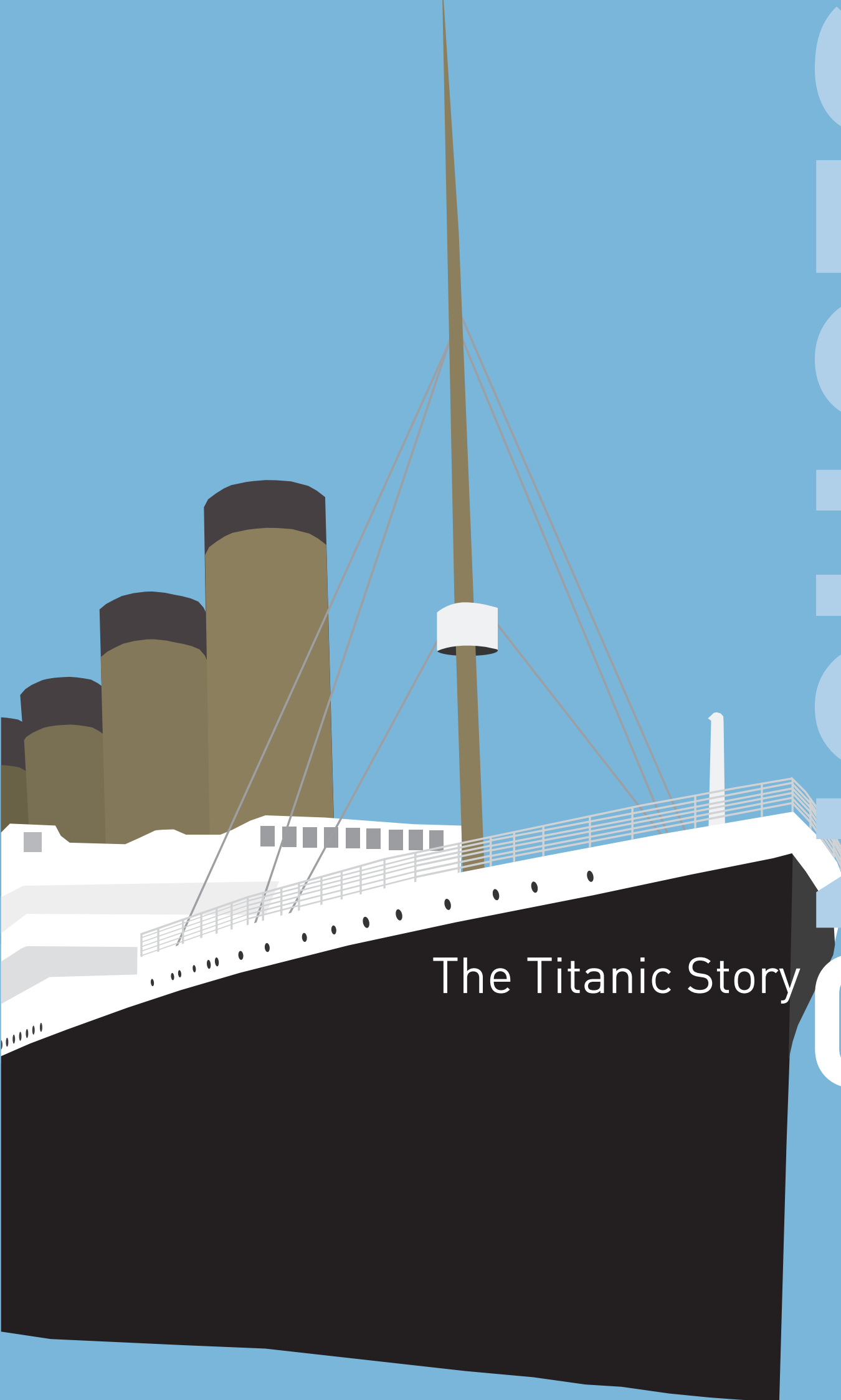
'Unsinkable' illustrates one way of integrating learning across the three contributory elements of History, Geography and Science and Technology within The World Around Us. It also shows how the strands that make up The World Around Us are inter-related. 'Unsinkable' is a theme that has been derived from a topic that many schools are already familiar with, The Titanic. This was the stimulus and starting point for developing a thematic approach within The World Around Us.

## How Does This Thematic Unit Support The Northern Ireland Curriculum?

Statutory Requirements	
Interdependence	Interdependence of people and the environment and how this has accelerated over time by advances in transport and communication.
Movement and Energy	Changes in movement and energy over time.
Place	Change over time in places.
Change Over Time	Ways in which change occurs over both short and long periods of time in the physical and natural world.

Contributory Elements	History; Geography; and Science and Technology.
Focus	History.
Thinking Skills and Personal Capabilities	This Thematic Unit focuses on Thinking, Problem-Solving and Decision-Making.
Cross-Curricular Skills	Where appropriate, learning intentions that relate to cross-curricular skills are signposted. These cross-curricular skills are: <ul style="list-style-type: none"> <li>• Communication (Comm);</li> <li>• Using Maths (UMaths); and</li> <li>• Using ICT (UICT).</li> </ul>





The Titanic Story

SECTION  
01



# Activity One

## Who Knows What?

What do we already know about the Titanic?

What do we want to learn about the Titanic?

### Suggested Learning Intentions

Children will:

- understand how some human events in the past impacted globally;
- make relevant contributions to discussion (Comm);
- ask deeper and wider questions to structure a historical enquiry (TS&PC); and
- use a variety of strategies to work together to develop and use historical language (TS&PC).

### Suggested Learning and Teaching Activities

Share the following headline with class:

#### **TITANIC SUNK: TERRIBLE LOSS OF LIFE.**

Organise the class into four groups of pupils. Provide each group with a different coloured marker. Place a large sheet of paper in the four corners of the room. Each sheet of paper should have one of the following titles:

**Titanic - Places**

**Titanic - People**

**Titanic - Facts**

**Titanic - Anything Else**

Invite each group to discuss and record what they already know on the sheets under each heading.

Use the completed sheets to:

- collate the information that the children already have;
- sift the information for what is incorrect or irrelevant; and

- sort factual information from fictional information (lots of children know about the film 'Titanic' so they may include fictional characters).

Introduce a discussion about what the class wants to learn about the Titanic. The information from completed sheets may be displayed in the classroom on a **KWL**\* grid.

\* See Active Learning and Teaching Methods for Key Stages 1&2

Types of questions for study may include:

#### **Places**

Where was the Titanic built?

Where was it going?

#### **People**

Who built the Titanic?

Who sailed on the Titanic?

Were there survivors of the Titanic?

#### **Facts**

When did the Titanic set sail?

How long did it take for the Titanic to sink?

How was the news reported?

Can I tell the difference between facts and opinions about the Titanic?

#### **Anything Else**

What are icebergs?

What type of entertainment was provided on the Titanic?

Did anyone try to help the people on the Titanic?

What did the ship look like?

What type of experience would have been had onboard the Titanic?

Note:

This list is not exhaustive and can be expanded on or added to as teacher and class identify relevant learning. Some aspects are covered in this theme.



# Activity Two

## Unsinkable Sources

How did people find out about the Titanic Disaster?

How can we find out about the Titanic Disaster?

How will we locate information to answer the questions we set ourselves?

### Suggested Learning Intentions

Children will:

- learn how developments in communication have impacted on our world;
- use appropriate structure and language to write a report (Comm);
- create sound/moving image files showing awareness of audience (UICT); and
- compare and contrast how things have changed over time (TS&PC).

### Suggested Learning and Teaching Activities

Locate the following video, from The Times website, which highlights how the newspaper reported the sinking of the Titanic:

Go to [www.timesonline.co.uk](http://www.timesonline.co.uk). Navigate to the archives section where a subsection on disasters will lead to the information about the sinking of the Titanic. Play the short video (2:20 mins) to the class.

Discuss with the class how the disaster of the Titanic was reported. Consider reasons why some of the early information was later proved wrong. Discuss how information and news was recorded and reported in 1912. Ask pupils to make suggestions as to how the news reports could have become confused.

Draw a timeline of the reports. Research the technology the Titanic had, with which, to report the disaster.

In comparison, explore a current news story with the class. Examine how information is gathered, recorded and reported today. Ask the class to describe which new technologies make gathering news a much easier exercise.

Research the technology that ships have today, focusing on the equipment that helps ships avoid or report disasters.



Ask the class to use books and the internet to locate and read more reports about the Titanic disaster.

Create a list of inaccurate information given by news reports of the time. Consider as a class the sort of problems the wrong information coming out about the Titanic would have caused. Discuss who might have been affected by the wrong information and how they may have felt.

In small groups use the findings from the research to write success criteria for a successful news report. Encourage them to use this success criteria to create accurate news reports, including the writing of scripts and short broadcasts. The report should be entitled 'Breaking News 15/04/1912'. Record these digitally, as a radio or television report. Groups should have the opportunity to peer assess each others' news reports against the success criteria.

# Activity Three

## Unsinkable Opinions

Why did people think the Titanic was unsinkable?

What is the difference between fact and opinion?

### Suggested Learning Intentions

Children will:

- learn about how developments in technology have affected life now and in the past;
- use appropriate structure and language to write a newspaper report (Comm);
- access and select information from a range of digital sources (UICT); and
- consider the usefulness and reliability of all sources of information related to the enquiry when discriminating between fact and opinion (TS&PC).



### Suggested Learning and Teaching Activities

Introduce the following statement to the class, taken from a report in The Times newspaper, 16th April 1912:

*Everything had been done to make the huge vessel unsinkable, and her owners believed her to be so.*

Discuss the meaning of the term myth and consider how this statement was a myth that had grown up around the Titanic.

Consider how the statement that the Titanic was unsinkable was tragically very wrong. Research why people thought the ship was unsinkable.

Explore the following quotation with the class:

*It was said that the builders and owners of Titanic claimed she was "unsinkable". The claim actually made was that she was "practically unsinkable" close enough, but nevertheless an unfortunate statement and one which haunted both builder and owner for years.*

Paul Loudon-Brown, Titanic: Sinking the Myths  
[www.bbc.co.uk/history/british/britain\\_wwone/titanic\\_01.shtml](http://www.bbc.co.uk/history/british/britain_wwone/titanic_01.shtml)

Ask pupils to work in small groups to consider the difference between the word 'unsinkable' and the phrase 'practically unsinkable'. Investigate why both statements were opinions and not facts. Use books and internet to find reports that may explain why the claim was made. Make a list of people who would have wanted to think that the Titanic was unsinkable and why.

Organise the class into groups of four pupils. Invite each group to consider how one of the following groups of people would have felt about the claim:

- Survivors;
- Relatives of the dead;
- Owners;
- Builders.

Use drama techniques such as **Freeze Frame\*** to explore feelings from a range of perspectives. No one knows exactly where the claim that the Titanic was unsinkable came from. Several quotes and sources exist which certainly suggest that it was a difficult ship to sink. Research for this can be carried out at the following URL:  
[www.historyonthenet.com/titanic/unsinkable.htm](http://www.historyonthenet.com/titanic/unsinkable.htm)

Alternatively, create statements of evidence provided by the site and ask the class to consider which statement would be most responsible for creating the myth that the Titanic was unsinkable. Use **Card Ranking** or **Diamond Ranking Strategy\***, asking the class to consider which source would have influenced them most.

Examine how rumours start and stories change, by playing 'Chinese Whispers'. Pass a message around the circle where each child can only pass the message to the next one once. The last child in the circle should call out the message and compare it with the original message.

Research the internet to locate quotes about the Titanic by a range of people, such as, Bruce Ismay, owner and survivor – explore their opinions about the disaster.

"The press is calling these ships unsinkable and Ismay's leading the chorus. It's just not true."  
Thomas Andrews, MD of Harland and Wolff and designer of the Titanic.

Ask pupils to consider why this person's views should be believed. Encourage children to suggest why Ismay, the ship's owner, was happy to let people believe the Titanic was "unsinkable".

Invite pupils to research these people from the past and to write a short biography of one.

Ask pupils to re-write original newspaper headlines to clarify the myth of the Titanic being 'unsinkable'.

\* See Active Learning and Teaching Methods for Key Stages 1&2



# Activity Four

## Who's Aboard?

Who sailed on the Titanic?

How do different people act in the same situation?

### Suggested Learning Intentions

Children will:

- learn how people used to live, including roles and responsibilities in society;
- express thoughts and feelings (of a character) (Comm);
- examine the decisions made by historical characters (TS&PC); and
- participate in role-play simulation and demonstrate empathy with the past (TS&PC).

### Suggested Learning and Teaching Activities

Use the internet to access the passenger lists from the Titanic. Invite children to research a variety of people's experiences onboard the Titanic, for example, examining the differences between the accommodation and food onboard and the cost of passage. Encourage groups of pupils to devise a list of questions for interviewing passengers.

**Hot Seating\*** could then be used with the questions and to reflect on passenger experiences.

Use the **Freeze Frame\*** activity to explore what the characters were doing when the news came that the ship was sinking.

Working in pairs, ask children to select a name of a passenger who was onboard the ship. Use the research undertaken in the theme to create a profile of their Titanic passenger. Use the **Hot Seat\*** activity so that children can take on the role of their chosen passenger, outlining their experiences onboard the Titanic.

Use the internet to examine the crew lists of the Titanic. Find out the roles of some of the jobs listed. The children should work in groups to use books and the internet to find out what crew members did to help the passengers as the ship was sinking. Invite children to listen to the account of CH Lightoller, the most senior surviving officer who describes how the Titanic sank. The account can be accessed at: [www.bbc.co.uk/archive/survivorsofthetitanic](http://www.bbc.co.uk/archive/survivorsofthetitanic). Use the account as a stimulus for the children to write their own account as a crew member on the Titanic, outlining what they did.

Research who Molly Brown was and how she gained her reputation as 'Unsinkable'. Find out what she did as the Titanic was sinking and explore the qualities she displayed in her attempt to help and save others. Compare and contrast her actions with those of some of the others on board, for example, find out about Bruce Ismay and what he did while the Titanic sank.

Explore the qualities Bruce Ismay displayed. Evaluate the differences between the qualities each character displayed. Alternatively, compare and contrast the actions of Captain Smith or Thomas Andrews with Bruce Ismay. Write qualities for these men and their actions.

Invite children to create character sketches of key characters by drawing portraits and surrounding them with words to describe their qualities, giving evidence to justify the choices.

\* See Active Learning and Teaching Methods for Key Stages 1&2

# Activity Five

## Plotting a Course

What were the planned stages of the Titanic's voyage?

### Suggested Learning Intentions

Children will:

- know how transport has changed over time;
- be able to use a diary or postcard format to develop, express and present ideas (Comm);
- use ICT to research, select and edit information from a range of digital sources (UICT);
- use a variety of forms of creative writing to demonstrate empathy with the past (TS&PC).



### Suggested Learning and Teaching Activities

#### A Postcard From...

Research using books and the internet, the towns the Titanic visited or was due to visit.  
(Belfast, Southampton, Cherbourg, Cork, New York)

Invite children to select a picture of one of the towns and create a postcard to describe the visit to that town/port. Alternatively they could write a diary account of a passenger who visited one of these towns or a series of accounts of the journey describing the route taken and what was seen, heard, smelled, felt etc., in the ports visited.

Locate New York on a map of America. Research how long the journey should have taken in 1912. Explore ways of travelling to New York and find out how long journeys take today. Use airline sites or brochures to discover the means of transport, times and costs of travel to New York today.

Use ICT to create and design a brochure for the people travelling to New York on the Titanic, describing what they might see when they reached New York as tourists.

Plot the course of the iceberg on its collision course with the Titanic. Use a search engine to explore where ice fields can be found today. Find out what technology ships use to locate and avoid icebergs today. Explore airline or ferry companies' websites to plot courses of travel from Northern Ireland today.



# Activity Six

## The Legacy of the Titanic

Where is the Titanic Quarter?

What happened there in the past?

What is happening there now?

What will the Titanic Quarter look like in the future?

### Suggested Learning Intentions

Children will:

- learn that some buildings have been used in the past for different purposes;
- be able to locate relevant information and use it appropriately (Comm);
- use ICT to record and present data (UMaths, UICT); and
- identify and use appropriate sources to gain information (TS&PC).

### Suggested Learning and Teaching Activities

Find out about the Samson and Goliath cranes at Harland and Wolff. Examples of questions that may be researched include: Who were they named after? Why? When were they erected? Why?

Research the stages of the development and construction of the Titanic. Compile a timeline of the building of the Titanic.

Research the industries in Northern Ireland that were linked to the building of the Titanic. Examples include, local linen companies who provided bedding and table cloths and soft furnishings for the Titanic or the Belfast Ropeworks who produced rope for Harland & Wolff.

Compile a list of workers who were involved in building and fitting the ship in the Titanic Quarter.

Explore the planned re-development of the Titanic Quarter. Use Google Earth to locate the Titanic Quarter on a map of Belfast.

Study the plans for the Titanic Quarter and Northern Ireland Science Park which contains the dock that the Titanic was built. Explore what has been built already in Titanic Quarter and infrastructure that is already in place. How has the past been preserved in the area?

Research the Nomadic's link with the Titanic. Compile a list of questions in a group to find out about the Nomadic. Examples could include: When was it built? What was it used for? What are its dimensions? Why is it an important piece of history?

Plan and make a visit to the Titanic Quarter and the Nomadic. Keep a digital record of your visit. Present the learning on display boards in the classroom.

Examine the buildings erected in the Northern Ireland Science Park. Explore how in the Titanic Quarter, buildings are used in new ways, for example, the former paint room for Harland & Wolff ships is sometimes used as a studio for film sets.

As a class, conduct a survey to find out what facilities people would like to see included in the Titanic Quarter. Use ICT to present the results of the survey. Challenge the children to work in groups to design a building for the modern day Titanic Quarter. Explain that their design should have a modern purpose but must also reflect history. Encourage pupils to create a brochure to advertise their building to tourists. Generate and agree success criteria for the design. Evaluate each others brochures according to the success criteria.

Use ICT to present their design and advert. Use a strategy such as **Dot Voting**\* to select the best design based on the agreed success criteria.

\* See Active Learning and Teaching Methods for Key Stages 1&2

# Activity Seven

## Iceberg Ahead!

Primary Upd8 makes science relevant using the power of topicality. Every day interesting science pops out of the news. The following punchy activities provide maximum engagement and create the bridge to the curriculum.

Instead of just exploring the different types and properties of water and the changes that occur in the water cycle, this interactive activity enables learners to investigate through news headlines of 'Iceberg Ahead'.

Go to [www.nicurriculum.org.uk](http://www.nicurriculum.org.uk), download the activity and teacher's notes by navigating to Key Stage 1 and 2; Areas of Learning; The World Around Us; Primary Upd8; Iceberg Ahead.

Invite children to think about the phrase 'The tip of the iceberg'. This is usually used to describe a difficulty where there are more unseen problems than those being described.

**Iceberg Ahead!**

Major plans are being drawn up to transform a disused shipyard in Belfast. The whole area will become a heritage centre dedicated to the famous ship RMS Titanic.

What was special about the Titanic?  
Where and when was it built?  
Where was the Titanic travelling to?  
How would the passengers have felt about being on this ship?  
What kind of things would the captain have needed to think about on the Titanic's maiden voyage?

**Iceberg Fact File:**

- Icebergs are formed where ice sheets called glaciers reach the sea. Large pieces of the glacier break off and float away.
- Even though they float in the sea all icebergs are made from frozen fresh water. In Canada, iceberg water is bottled and sold for drinking.
- Only a small part of an iceberg sticks above the surface there can be up to seven times as much ice below the sea.
- Icebergs vary in size the smallest tip-to-toe are called growlers. The largest iceberg ever recorded covered 4350 square kilometers (That is more than three times the area of London).
- Icebergs vary in shape and some can turn over suddenly as they melt.

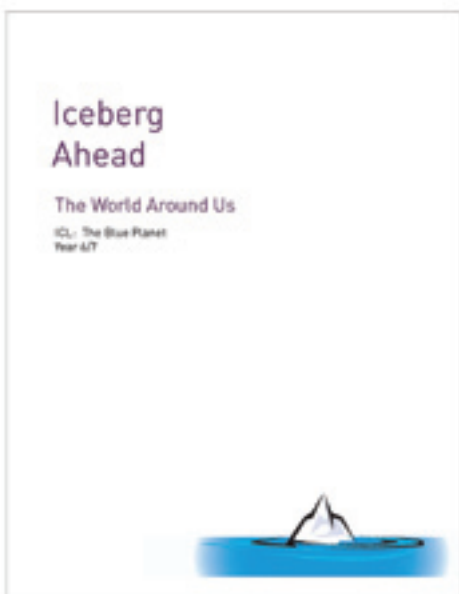
**Investigating icebergs**

Even huge icebergs like the one that the Titanic hit eventually melt and turn to water. What do you think could affect how long it takes an iceberg to melt?

In groups transform factors that could affect the time it takes for an iceberg to melt. Which ones would be good to investigate? How could you make mini-icebergs for your investigation?

**Choose one factor to investigate.**

- Decide on a question you could investigate by using miniature icebergs.
- What do you predict would happen in your investigation?
- What factor would you change in your investigation?
- What factors would you need to keep the same to get your investigation up as a fair test?
- What measurements or observations would you make for your results?



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Unsinkable?

02

SECTION





# Activity Eight

## Sorting Sinkers

Which everyday objects will float? Which will sink?

What factors affect how an object floats?

Why does a drawing pin sink yet a tanker float?

### Suggested Learning Intentions

Children will:

- learn how properties of materials relate to how they are used;
- share and evaluate ideas using evidence to justify opinions (Comm); and
- make predictions and give reasons based on scientific knowledge and understanding (TS&PC).



### Suggested Learning and Teaching Activities

Organise the children into groups. Give the groups one minute to list the materials boats have been made from in the past and present. Discuss the suggestions as a class and the reasons why these materials would have been used.

Gather a selection of everyday objects, some of which should be made from the shipbuilding materials mentioned in the discussion. Example objects could include: pencil, rubber, nail, bath toy, paper clip, rubber ball, ping-pong ball, apple and paper towel.

Ask the children to make predictions for each item as to whether they think it will float or sink and record the predictions. Provide each group with a basin of water. Allow each group time to carry out the investigation and to record and present their findings.

Discuss predictions. Encourage children to consider questions, for example, 'Why did the paper clip sink yet a massive tanker will float?' Ask children to suggest factors that might influence floating and sinking.

# Activity Nine

## Floating Around

Why does a tennis ball float?

Why does the ball of clay sink?

How can the same weight in clay be made to float?

### Suggested Learning Intentions

Children will:

- learn how properties of materials relate to how they are used;
- suggest how to make a test fair, identifying what should be changed, measured and kept the same (TS&PC); and
- analyse and evaluate what has been made with reference to the original design (TS&PC).



### Suggested Learning and Teaching Activities

Each group will require a large clear container such as a fish tank or similar clear container that is big enough to allow a tennis ball to float. Show the class a tennis ball and ask for suggestions and reasons why children think it may or may not float. Demonstrate to the class that it floats and will return to the surface even if pushed under the water. Allow the children to use a tennis ball themselves to feel this happening.

Divide the class into groups and show them a clay ball. Each group should discuss whether they think it will sink or float. Discuss why it might sink, for example, due to its weight. Provide each group with a ball of clay. The clay balls should all weigh the same, be the same size and also be malleable and still not dry. Allow each group to test their theory as to whether or not the ball will float or sink in the tank. After the groups have discovered that the balls of clay sink, set them the challenge of making them float. Take photographs of the groups' ideas and suggestions and see if their predictions work.

After the investigation, groups may sort and annotate the photographs of their work. Ask them to make their own suggestions as to why the ball of clay floats when its shape, not its mass (weight) is changed.

Provide each child with clay so that they can create their own boat. While the clay is wet, wooden skewers, lollipop sticks, paper, fabric or other appropriate materials could be used to make sails and masts to add to the boat-like appearance of the model. Allow the clay boats to air dry. When they are dried they can be decorated and named, like real boats.

# Activity Ten

## Fruit Float

Will a lemon/orange float - how can we make it sink?

Can we explain why the fruit with peel floats?

### Suggested Learning Intentions

Children will:

- learn how properties of materials relate to how they are used;
- share and evaluate ideas (Comm); and
- evaluate and justify the decisions (TS&PC).



### Suggested Learning and Teaching Activities

Organise the class into groups of three or four pupils. Provide each group with a large basin of water and an orange or a lemon. The investigation might include a selection of oranges and lemons rather than just one type. Ask the children to predict whether they think the fruit will float or sink. Invite the groups to place the fruit in the water and record what happens. Photographs of the investigation could be taken for recording purposes. When the fruit floats, discuss with the class possible reasons as to why this happens.

Challenge the class to make the fruit sink by itself. Give them time to explore how this may be done. The groups should draw, label and record what happened during their investigation. Ask the class to explain why they think the fruit sank.

Note:

If the fruit is peeled it will sink. The air bubbles in the peel have been removed. The fruit is more dense now and so it sinks.

# Activity Eleven

## Container Challenge

How do ships carry large cargoes?

Can we design and carry out a fair test?

How can we change and improve our designs?

What have we learned about carrying weight on ships?

### Suggested Learning Intentions

Children will:

- learn how advances in technology have changed the way we travel; and
- be able to predict, test, observe and reason (TS&PC).



### Suggested Learning and Teaching Activities

Provide the class with pictures of large tankers, car ferries and cargo ships. Discuss how they might float. Remind the class of the small objects they used in Activity 8 (Sorting Sinkers) which they have seen sink. Explain that the groups are going to carry out a test on a boat hull to see if they can improve the cargo it carries. Explain that the groups are going to carry out a fair test. Discuss how a fair test would be conducted (hulls must be same size and made of the same amount of tin foil to keep the test fair).

Challenge the children to make two hulls of boats from tin foil. One they will load with marbles of the same size and weight (or other available small objects) until it sinks. The other they are going to divide into compartments with pieces of balsa wood. They will then test loading compartments in a variety of ways to see how best to improve the amount of cargo the hull can hold. Provide time for the children to carry out and record the outcomes of their investigation.

Discuss what happens when the hull is divided into sections. The groups should attempt to suggest where the best place to store the cargo would be. They should investigate how much more cargo the hull could carry. Encourage them to pose questions of their own for investigation.

# Activity Twelve

## Dead Sea Float

Where is the Dead Sea?

Why do objects that would normally sink, float on it?

How can we prove salt water is heavier than fresh water?

### Suggested Learning Intentions

Children will:

- learn about the variety of living things and the conditions necessary for their growth and survival;
- be able to make relevant contributions to a discussion (Comm);
- use ICT to research, select and edit information (UICT); and
- be able to discuss and design an investigation (TS&PC).



### Suggested Learning and Teaching Activities

Divide the class into small groups. Each group should research the Dead Sea. The groups should decide on suitable characteristics to research, such as temperature, location, habitat for animals, and salt content. The groups should be encouraged to locate images of the Dead Sea.

Discuss how objects which would sink in other seas can float on the Dead Sea. Suggest possible reasons for this. Challenge the children to design a simple investigation to prove this. The groups could be provided with materials to stimulate discussion and which may be used to design investigations.

Each group should consider:

- The question they are seeking;
- What they want to prove;
- How they intend to prove their answer;
- Design of the investigation;
- Recording of outcomes;
- Deductions and analysis of outcomes.

Children should be encouraged to come up with various tests/investigations of their own. Alternatively either one or both of the investigations outlined below could be used.

Note:

The Dead Sea has a very high salt content. Salt water is heavier than freshwater and so objects, which will not float in freshwater, can float in it.

### Salty Eggs

Provide each group with the following:

- Two eggs;
- Two containers with warm water;
- Salt.

In one of the containers, add several spoonfuls of salt; stir to dissolve. When the eggs are placed in the containers the egg in salt water will float – the other will sink. The reason for this is that salt water is more dense than tap/fresh water so the weight of the egg does not have to push away as much water to make space for itself and so it floats.

### Coloured Water

Provide each group with the following:

- Table salt;
- Two clear plastic cups;
- A spoon;
- Tap water (warm);
- Food colouring;
- A large container (for example, a pint glass).

Pour equal amounts of warm water into the plastic cups. Add four or five tablespoons of salt to one cup and stir until it dissolves. Pour this into the pint glass. Add three drops of food colouring into the other plastic cup of warm water and stir to mix. Slowly pour the coloured water into the pint glass. Take time when doing this. Let the mixture sit a moment and observe what happens. Explain what this investigation proves.

Use a digital camera or video to record the steps in the investigation. Create a cartoon strip with the photographs and add captions to each photograph to explain what is happening.





# Activity Thirteen

## Raise the Rafters

### The Great Raft Challenge

How can we make a piece of material float?

What everyday objects will create buoyancy to float it?

Can we design a simple raft using these materials?

Will it bear weight?

#### Suggested Learning Intentions

Children will:

- learn how the use of materials relates to their properties;
- use reason to justify opinion (Comm);
- use ICT to record and present data (UMaths, UICT); and
- make predictions and give reasons based on scientific knowledge and understanding (TS&PC).

#### Suggested Learning and Teaching Activities

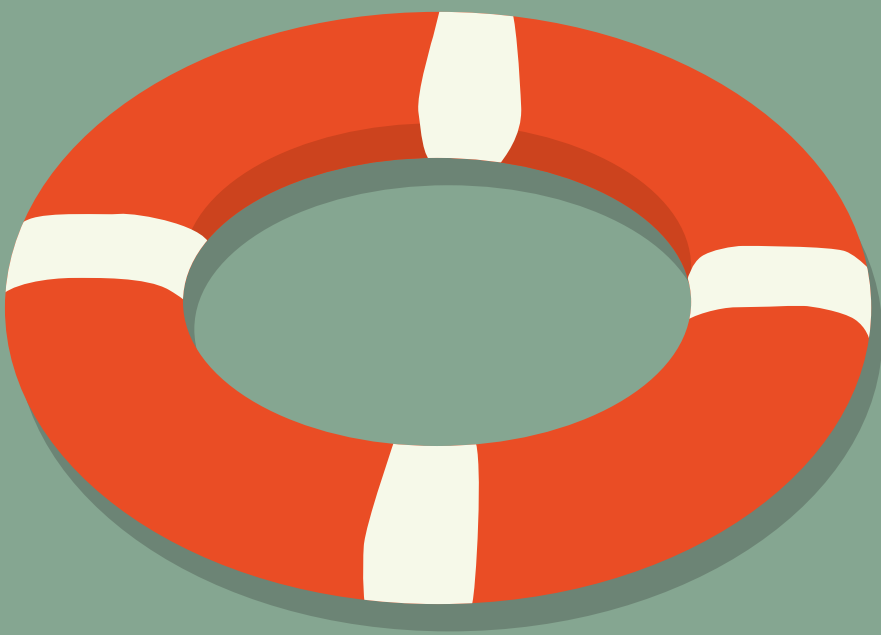
Organise the class into small groups. Provide the children with a piece of flat material that will sink, for example, a small tile, or a flat piece of square or rectangular plastic. It is a good idea to pre-test the sinkable material you provide to ensure it can be made to float. Challenge the children to design a raft using everyday materials which will transform this material into a floating craft. Provide a selection of buoyancy aids such as, plastic bottles, ping pong balls, balloons (not inflated) or shower caps. Also include objects which will not create buoyancy so that the children can test the outcomes.

A shower cap can be filled with ping pong balls. This creates a buoyancy aid when inverted in water. Groups may face a challenge in attaching the aids; provide string and insulating tape etc. Allow the children time to create their raft design – they may change their initial designs to improve buoyancy or the amount of weight they will bear. They should record all their work, using traditional or digital means. They should be encouraged to discuss their work in small groups and present to the class.









Connecting the  
Learning

03

# The Arts

## **Music**

Children pretend to be workers at Harland & Wolff shipyard. Discuss the sounds made when the ship was constructed. Explore ways the sounds could be recreated using instruments (for example, recreate the sound of hammering or metal being riveted). The sounds of ships blowing horns and metal being riveted could be explored. For further ideas, refer to the More Musical Mysteries pack, available from the BBC Northern Ireland Schools website in Learning Areas; The Arts.

## **Art and Design**

Research the ways in which artists and designers have represented the sea and ships over time and in different places. For example, children could focus on the travel posters used to advertise ocean liners in the 1920s and 1930s. Explore how similar 'hard edged' styles can be achieved using cut paper shapes.

Research the work of commercial artist Kenneth Shoesmith, who worked for the White Funnel line and whose work and archive is held by the Ulster Museum.

Look at the colours used in various pictures of the sea. Look at Shoesmith, David Hockney's 'swimming pool' pictures, J.M.W. Turner's pictures, Hokusai's 'The Great Wave'. How does the colour of the sea represent the weather conditions? What other features in the pictures indicate the weather conditions?

Look at graphics and representations on a nautical map. Create a map showing the course the Titanic was expected to travel. Try to devise ways to make the map look old.

# Personal Development and Mutual Understanding

In Circle Time, play 'Change Places' for anyone who has:

- travelled from Ireland to New York;
- been on a cruise ship;
- a relative who has travelled to New York from Ireland;
- heard family stories about relatives who were linked to the Titanic;
- relatives within the family who went to live in America a long time ago.

## Sharing Information:

Distinguish groups of three as they sit around the circle. Invite them to identify the groups of people on board the Titanic for example, rich, poor, and crew. Ask them to discuss and agree three ways in which they were all the same and three ways in which they were all different.

Alternatively, ask them to discuss the relationships those on the Titanic would have had within the identified groups and between the groups. Use words to describe the relationships, using evidence they have from their study so far. As their study develops ask them to revisit the words and adjust accordingly.

Emphasise the importance of changing your mind when you learn more about a situation and the importance of learning as much as you can so that your judgements are as accurate as possible. Highlight that you can never be 100 per cent sure because you cannot check your assumptions with the people involved.

## Closing Circle:

In a circle have everyone complete the sentence stem:  
"Something I learned that I hadn't thought about before was..."

## Take Opportunities to Discuss:

Stereotypes:

Remarks such as 'The first class/third class passengers.....' Take opportunities to challenge

stereotypical remarks by pupils or in what you read, see or hear, by asking questions such as: Have you any evidence for saying that? (Authentic evidence is best).

Would this be true for everyone, for example, of that social class?

Can anyone give me a different example showing a different attitude?

## Prejudice:

Challenge any 'unfavourable opinion or feeling formed beforehand without knowledge, thought or reason' (Adapted from Diversity Dictionary p91 in Joined Up: Developing Good Relations in the School Community by Mary Potter and Nichola Lynagh and available online at [www.nicurriculum.org.uk](http://www.nicurriculum.org.uk) in the PD&MU section and following Useful Links). For example, discuss any examples of prejudice between groups of passengers that you may read about or any remarks that pupils or others may make in discussion.

## Discrimination:

This is prejudice in action and is unfair treatment or action towards a person or group of people and makes an unfair distinction between one group and another. (A full definition can be found in the resource referenced above). For example, is there any evidence of discrimination on board the Titanic?

Other topics to discuss:

Fairness; justice; and roles and responsibilities.

## Parachute Games:

1. Prepare sticky backed cards numbered 1, 2 or 3 to give three equal groups. Have each pupil and classroom adult pick a card, attach it to their clothing and spread around the edge of the parachute in 1, 2 and 3 order. Emphasise the hope and anticipation, excitement and noise of coming onboard. Explain that all number 1s are crew; number 2s are first class passengers; and all number 3s are third class passengers. Have everyone wave the parachute up and down noisily. At a chosen signal have the crew members keep the parachute in action and the third and first

class passengers move into the centre and run about taking extra care not to go near someone of a different class. At a chosen signal have the passengers return to the edge of the parachute and the crew run into the centre depicting their various roles for example, stoking boilers; carrying trays of food; greeting guests; or carrying suitcases.

2. Reallocate the numbered cards and have everyone position themselves around the parachute in number order: 1, 2, 3. At a given signal have the number 2s come in and give their interpretation of ballroom dancing; then signal them to return to the edge. Another signal indicates that the number 3s go into the centre and give their interpretation of Irish or Scottish dancing. Finally have the number 3s return to the edge and the number 1s do a sequence of steps depicting their roles as crew.
3. Emphasise the silence as the passengers realised what was happening and the ship was sinking. Have everyone hold the edge of the parachute waving it slowly and carefully to avoid noise. Set the scene of the lifeboats being filled. Invite the pupils to decide for themselves if they will stay or go. At a given signal have those who choose to do so, leave the edge, cross quickly and quietly to the other side and out of the circle. Indicate again that another group may make the choice. When the minimum number remains to keep the parachute afloat invite them to stand back and watch the parachute sink to the ground.

# Physical Education

## **Passenger Rescue**

Materials Needed: Three hula hoops per team and cones for a start and finish line.

Children pretend they are aboard the Titanic when it is sinking. Teams of eight children (or 'passengers') stand in lines behind the starting point. They are equipped with three hula hoops for each team which must be placed on the floor for each child to walk in. The hula hoops are the lifeboats – if they step outside the hoop, the whole team must start again. The children must use the lifeboats to reach the finishing line. The 'lifeboats' may be lifted and placed in another position in order to reach the line. The lifeboats cannot be moved other than by lifting or the team must return to the start.

The winning team is the one that has all its passengers over the finish line.

Give each team three minutes to discuss in a group a strategy to play the game. After one round, discuss the strategies that worked best. Attempt the task a second time to see if teams can improve their performance having listened to and seen the ideas of others groups.

# Mathematics and Numeracy

Compare the salaries of people who worked on the Titanic. Research their jobs. Discuss why the children think some were better paid than others.

Compare the cost of living in 1912 with today. Think of a list of everyday items that existed in 1912 (for example, bread, newspaper and potatoes). Consider how the prices may look really cheap but that people's salaries at the time were also much lower than today. The opportunity to discuss pre-decimal currency may arise. Use the internet to locate a resource to convert pre-decimal currency into the current money.

Discuss the cost of building the Titanic and compare this with the cost of building a modern cruise ship. Note the similarities and differences concerning the facilities on each.

# Language and Literacy

Research books about the Titanic - both fact and fiction.

The children could take on the role of advertising executives and create an advertisement for a Titanic book. Using ICT, they could make advertisements for the press or devise a radio advertisement with sound effects. They could prepare a script and deliver a sales presentation, using presentation software.

You may wish to read *SOS Titanic*, by Eve Bunting (Harcourt Brace) before using it with the class. Eve Bunting is a local author, from Maghera. Read the first seven chapters that focus on life on board the Titanic and differences between classes on board. Look for events that suggest people think the Titanic's maiden voyage is doomed to failure. Compare the descriptions of the rooms in first class with steerage. Which would the children most like to be in from the description in the chapters? The children should work in pairs to list reasons why they would prefer to be in one and also why they did not like the other.

A child could pretend that they are the author and explain why they chose the title 'SOS Titanic' for the book.

A short portion of the novel could be used to make into a play. Research how a play is written with stage directions, and consider how to make suitable props.





# Resources

# Resources

[www.titanicmovie.com/present](http://www.titanicmovie.com/present)

Movie information including images from the film, 'Titanic'.

[www.titanicsdock.com](http://www.titanicsdock.com)

Provides an information sheet about the dock in which the Titanic was built.

[www.titanicinbelfast.com](http://www.titanicinbelfast.com)

Produced by the Ulster Folk and Transport Museum dedicated to the history of the Titanic.

[www.belfast-titanic.com](http://www.belfast-titanic.com)

Belfast Titanic Society website includes information on the history of shipbuilding in Belfast and some of the people associated with the Titanic. Also has information on the Nomadic.

[www.bbc.co.uk/history/british/britain\\_wwone/titanic\\_01.shtml](http://www.bbc.co.uk/history/british/britain_wwone/titanic_01.shtml)

Page entitled 'Sinking the Myths' – information about how the Titanic was described as 'practically unsinkable' as opposed to 'unsinkable'. Provides links to external sites.

[www.nomadicpreservationsociety.co.uk/](http://www.nomadicpreservationsociety.co.uk/)

Information about shipbuilding in Belfast and the Nomadic.

[www.gotobelfast.com](http://www.gotobelfast.com)

Belfast Visitor and Convention Bureau produced a leaflet about sites in Belfast with links to the Titanic. It includes many pictures of the Titanic. Navigate to Activities Belfast, Discover the Quarters. The leaflet may be downloaded at the Titanic Quarter section.

[www.titanic-whitestarships.com](http://www.titanic-whitestarships.com)

Details information about the White Star Line ships, focusing on the Titanic.

[www.marine.ie](http://www.marine.ie)

For information about the sinking of the Titanic follow these links within the site:

- Events & Outreach/Education
- Lesson Plans
- Energy and Forces

[www.titanicquarter.com](http://www.titanicquarter.com)

Titanic Quarter development website, showing how it will illustrate the history and character of Belfast. Includes interactive timeline from 1785 – 2012 as well as interactive map and webcam of Titanic Quarter.

[www.belfastcity.gov.uk/titanic](http://www.belfastcity.gov.uk/titanic)

Belfast City Council holds an annual 'Titanic Made in Belfast' festival.

BBC Northern Ireland Schools

Radio: Today & Yesterday in Northern Ireland

The Titanic RH 0735, RH 0736, RH 0737 (Available through SELB Schools A/V Recording Service).

Teachers' Notes are available at [www.bbc.co.uk/northernireland/schools/4\\_11/tandy/teachers.shtml](http://www.bbc.co.uk/northernireland/schools/4_11/tandy/teachers.shtml)

Follow links to 'Today and Yesterday' teachers' notes 2000 – 2006.

More Musical Mysteries

Programme 8: Pack Up Your Troubles (Available through SELB Schools A/V Recording Service).

Reading

SOS Titanic, by Eve Bunting (Harcourt Brace & Company) ISBN 0-15-200271-5

Provides a real sense of the strict class distinctions on board the Titanic.

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