

Time Travelling by Water

Wessex Archaeology

<http://blogs.wessexarch.co.uk/ttbw/>



Victorian Boats and Ships Teacher's Pack

This teacher's pack contains activities and suggestions to complement the teaching of Victorian Boats and Ships at KS2 and KS3. It was developed from the English Heritage/ALSF funded Assessing Boats and Ships Project.



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ENGLISH HERITAGE

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This teacher's pack contains activities and suggestions to complement the teaching of Victorian Boats and Ships at KS2 and KS3. It was developed from the English Heritage/ALSF funded Assessing Boats and Ships Project.

This pack includes:

- A script to introduce marine archaeology to the class – the PowerPoint presentation that accompanies this can be downloaded from <http://blogs.wessexarch.co.uk/ttbw/teacherspacks/>
- A fun and informative educational activity that allows your class to test their detective skills and build their knowledge of Victorian Boats and Ships
- Suggestions for extension activities

The following resources are available to download from

<http://blogs.wessexarch.co.uk/ttbw/teacherspacks/>:

1. PowerPoint introducing marine archaeology
2. Boat class picture PDFs
3. Artefact picture cards
4. Knots worksheets

Curriculum links at KS2 -

This workshop is designed to support National Curriculum history units 4: *Historical Enquiry*, 8a: *British History Victorian Britain* and 11a: *Victorian Britain*.

Curriculum links at KS3 -

This workshop is designed to support National Curriculum history units 2: *Key Processes (Historical Enquiry and Using Evidence)*; and 3: *British History*.

In addition, this teaching pack can be used to explore themes within citizenship and geography, and can be an interesting stimulus for literacy or art.



Introduction to Marine Archaeology

This script accompanies a PowerPoint presentation or intro.pdf which can be downloaded from <http://blogs.wessexarch.co.uk/ttbw/teacherspacks/>

This lesson, we are going to become marine archaeologists.

What do you think an archaeologist is or what do you think an archaeologist does?

An archaeologist is someone who wants to know one thing – what life was like for people in the past.

Marine archaeologists study anything that is in the water that can teach them about people in the past, or how people have used water in the past.

Marine archaeologists are probably best known for diving on shipwrecks, but they also study rivers, lakes, ports, harbours, bridges, beaches... anything that can teach them about people and water in the past.

They have some very clever methods of investigating archaeology underwater. Archaeologists dive under the water to look at wrecks, and spend lots of time looking at paper records from the past where ships may have sunk to find new shipwreck sites. As well as diving, they go wading in shallow water or walking on the beach to study archaeology (*if you have a hi-vis coat, hard hat and wellies or waders, dress up a pupil to demonstrate this*).

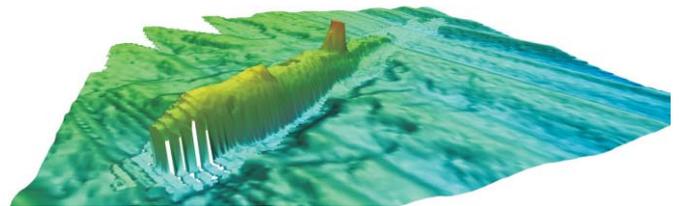
Archaeologists work with other people who use the water, such as fishermen, marine aggregate dredgers, and people developing offshore wind farms. They also do something called geophysical survey or geophys <phon: geo-fizz>. Geophys is a hi-tech system which uses sound waves to map the seafloor. *Look at the pictures that were made using geophysical survey.*

These pictures show different types of archaeology on the seabed – can you work out what they are?

1) WW2 Bomber – thought currently to be a German Dornier, which is lying upside down with its bomb doors open. This was found off the Kent coast.



2) A1 submarine – sunk whilst on auto-pilot in 1911. The submarine is currently lying in Bracklesham Bay, West Sussex.



3) The Talis – a ship carrying coal that was involved in a collision in 1906. The damage to the rear of the ship is clear on this picture. The wreck lies to the south-east of Beachy Head in East Sussex.



Archaeologists use all the clues available to them to try and learn about people in the past.



Activity 1: A Different Class

The clues for this activity can be found at the back of this pack or downloaded from: <http://blogs.wessexarch.co.uk/ttbw/teacherspacks/>

1. Print off the picture clues (found at the back of this pack) and mount on card. Alternatively source real materials such as coal and tea.
2. Display the different class of vessel by printing A3 copies or projecting them on the whiteboard.

Your class are going to become marine archaeologists for this lesson. All of the things in the pictures belonged to someone in the past. Your class are going to use all of their investigative skills to match artefacts to the boat on which they were used.

Start by asking the children what we use boats for. Answers include but are not limited to fishing, transporting people and cargo, military and recreation.

Then, using the boat images, ask the class to identify what they were used for.

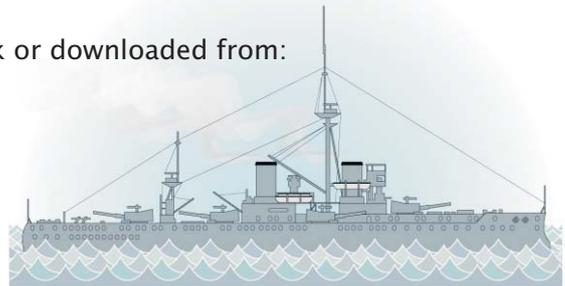
Give one artefact card to a pair or group of children in the class (depending on numbers) and ask them to study and discuss it.

What does their picture show? What can they learn from it? Can they tell on which vessel it might have been used?

Some of the items might be unfamiliar to them – in this case encourage your pupils to tell you as much as they can about the item, such as what it is made of and what it was used for.

After a few minutes ask the children to swap their card with a neighbouring pair/group. Keep swapping artefacts until all the children have seen all the cards. Then ask the children to stand up and tell the rest of the class about the card they currently hold in answer to the questions above.

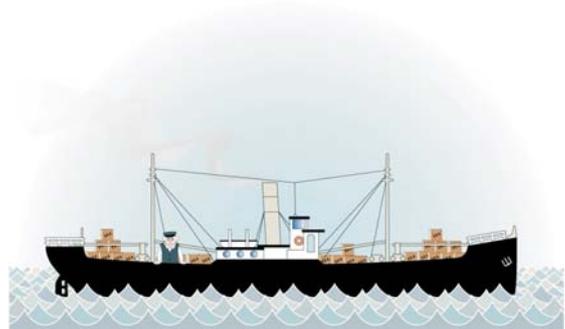
Encourage the class to help other pairs if they get stuck on one object.



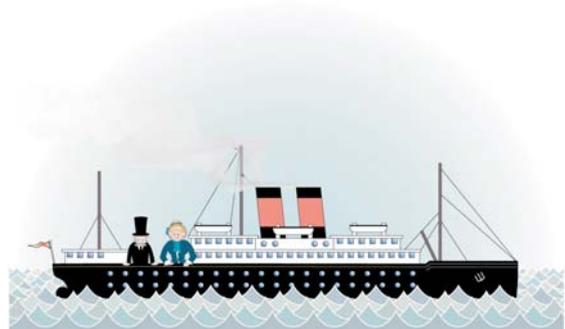
Military Vessel



Fishing Boat



Cargo Vessel



Passenger Vessel



Recreational Yacht



By the time everyone has had a turn, each vessel has two artefacts used on board.

Answers:



Military Vessel: Victoria Cross medal and musket ball



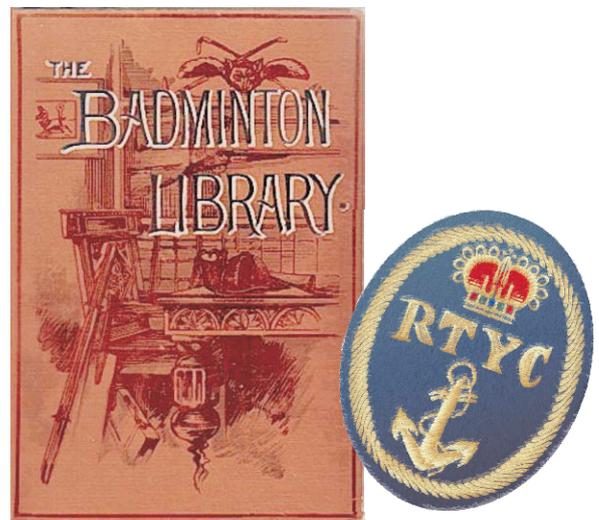
Fishing Boat: Fishnet needle and clay pipe



Cargo Vessel: Tea and coal



Passenger Vessel: Ticket and cutlery



Recreational Yacht: Badminton book of sailing and yacht club badge

Extension Activity:

Ask to children to think about what it would be like to go to sea on each of the vessels and how far or where they might go. Which boat would they most like to travel on?



Activity 2: Spot the Difference

The clues for this activity can be found at the back of this pack or downloaded from:
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Print out copies of the wooden and metal military vessels (enough for 1 between 2)

When marine archaeologists investigate different shipwrecks one of the ways to identify the age of the ship is by looking at the construction or how it was built. Changes in ship technology can be tracked through time. During the Victorian period there was the Industrial Revolution: new technologies revolutionised the manufacturing industry creating factories, and railways were being connected across the country.

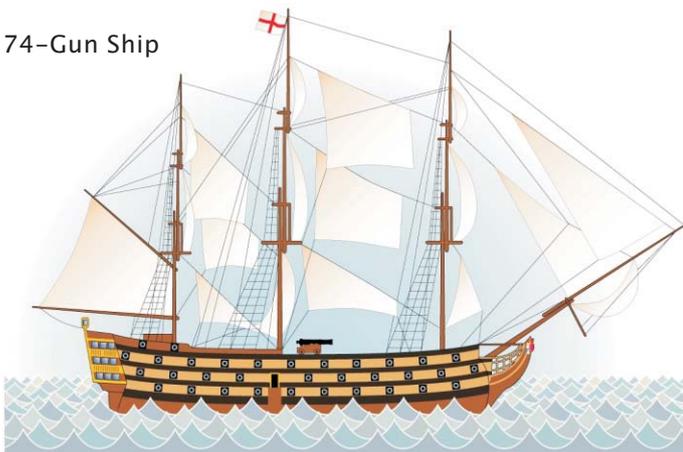
There was a lot of change and experimentation with the construction of ships. Different materials were used, different methods of propulsion (forward movement) developed and shapes changed.

Give a picture of the wooden and metal ship to each pair. Ask the children to spot as many differences between the two vessels as they can find.

Encourage the children to be creative, not just looking at the external/physical features but considering the sounds and smells that might be encountered if working on board.

After a while call the class together and in turns ask each pair to state one difference. Using the SMARTBOARD, with 2 images side by side, mark the changes as they are mentioned.

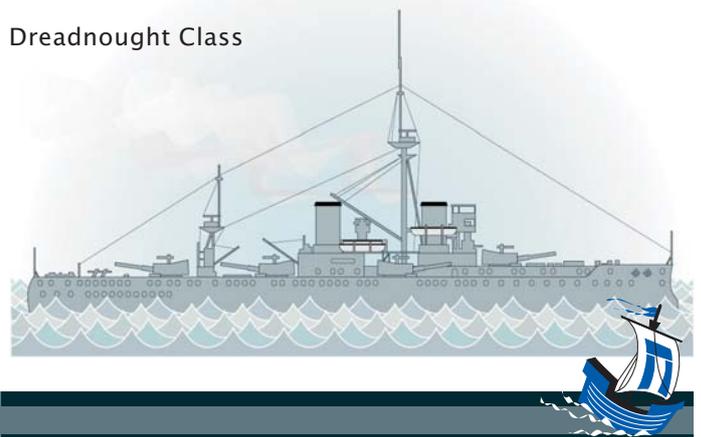
74-Gun Ship



Answers include but are not limited to:

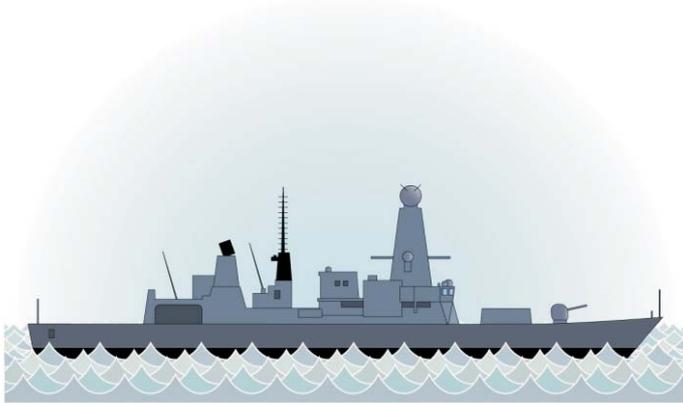
74-Gun Ship (1856)	Dreadnought Class (1906)
Wooden Hull	Metal Hull
Sail Propulsion	Steam powered engine
Figurehead	-
-	Lifeboats
Cannon	Guns
Fires from side on	Fires from top deck/swivelguns
74 guns	5 two gun turrets, 5 torpedo tubes, 27 small guns and 2 anti-aircraft guns
Propulsion: Quiet Wind	Propulsion: Loud Engines
Living on Decks	Cabins
Cold and wet	Warm and Dry
Clear deck	Deck Structure / bridge
Flag	No flag
Small	Large
Decorative	Functional
Rigging	Ladders
Rudder	Propeller Steering
Masts	-
Portholes (no glass)	Portholes with glass (windows)

Dreadnought Class

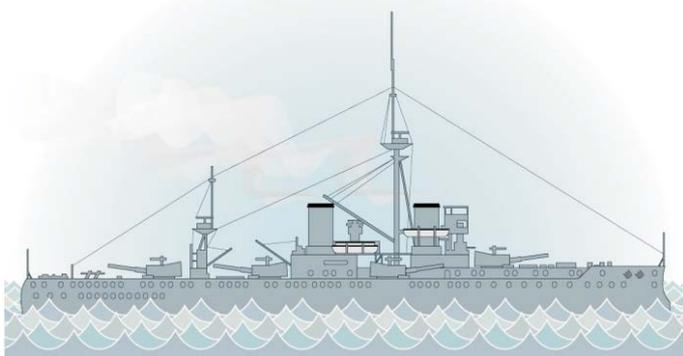


Extension Activity

Afterwards, count the number of changes and show them the image of the Type 45 Destroyer alongside a Dreadnought Class. Discuss as a class how many changes occurred in ship construction between 1856 – 1906 (c. 100 years); and then between 1906 – 2010 (c. 50 years). This shows the speed of technological development during the Victorian Period, by the end of the Victorian period the military ship was unrecognisable from the beginning. Whereas there are few changes between a Dreadnought Class and Type 45 Destroyer. Changes include but are not limited to weapon development (e.g. missiles), sonar and GPS.



Type 45 Destroyer



Dreadnought Class

KS2 Homework Activity:

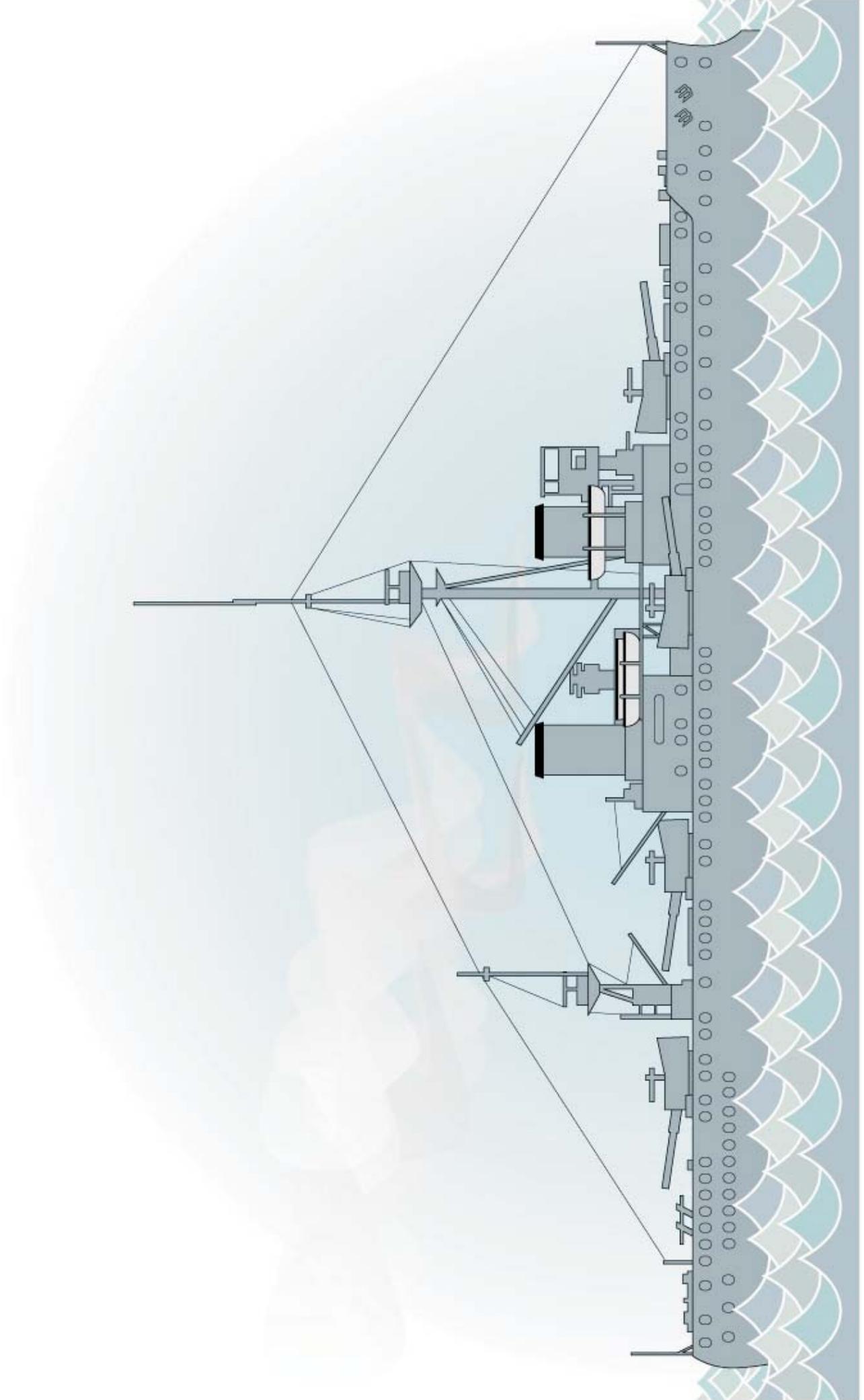
Ask the children to design their own Victorian ship. They must consider its class (use), what equipment might be needed and/or carried on board.

KS3 Homework Activity:

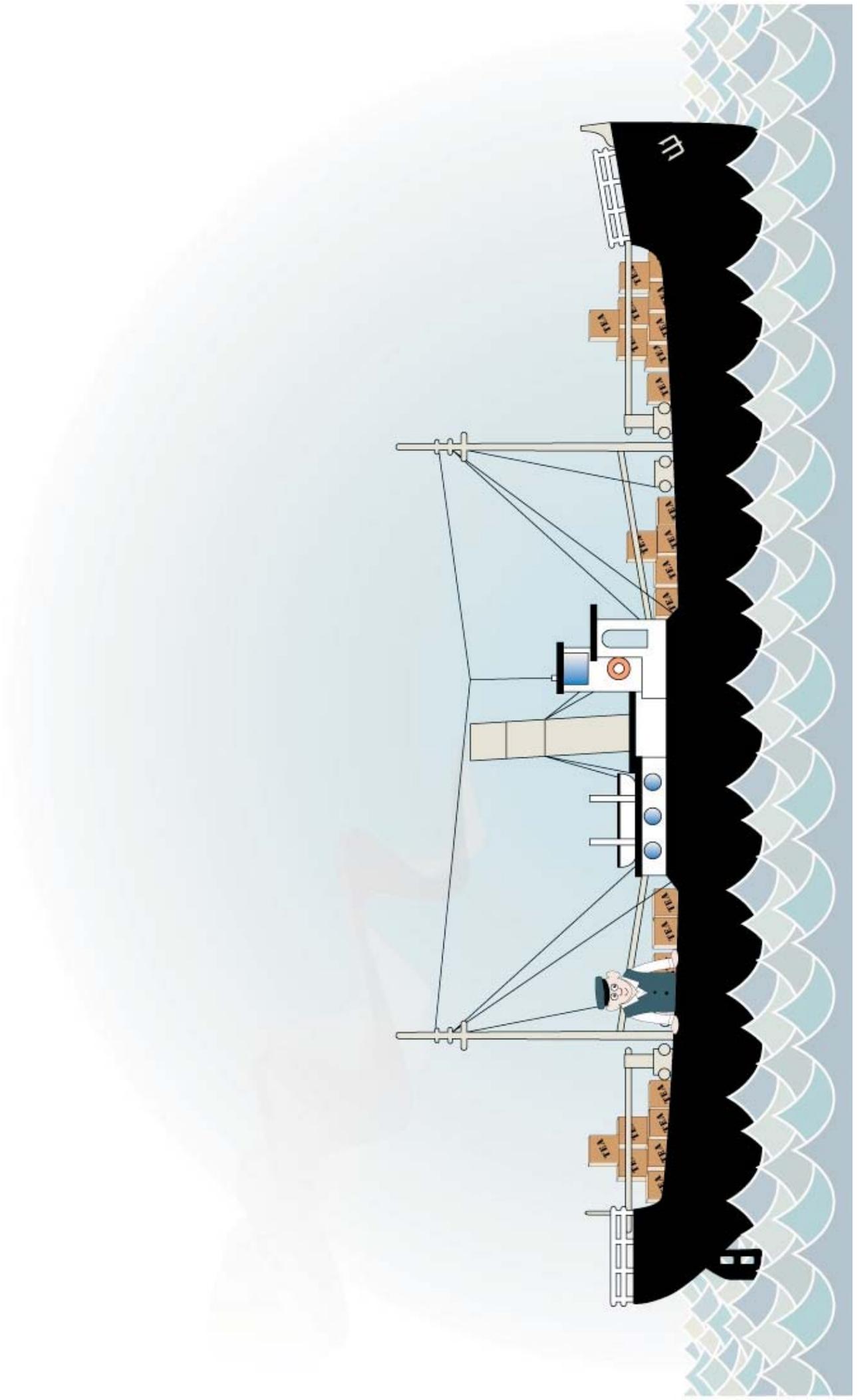
Using the data below mark on a world map all the destinations that ships during the Victorian period were travelling to.

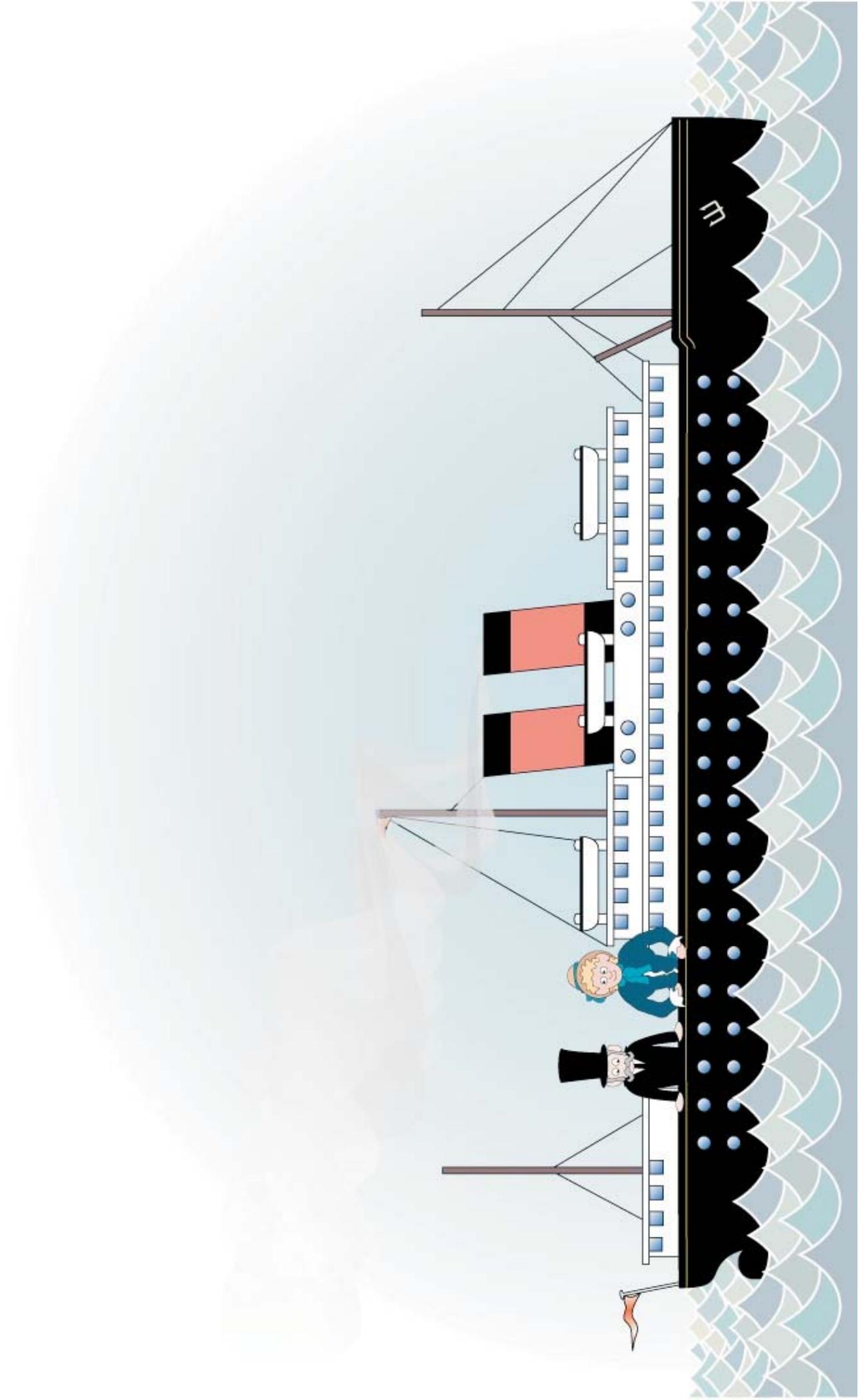
Country of Destination	Total NMR
Argentina	1
Australia	13
Bahamas	1
Belgium	6
Bermuda	1
Brazil	2
Canada	1
Chile	4
Cuba	3
Egypt	2
England	158
France	23
Germany	12
Greece	1
Haiti	1
India	4
Isle of Man	1
Italy	8
Japan	2
Malta	2
Northern Ireland	1
Netherlands	13
New Zealand	1
Nigeria	2
Norway	2
Poland	1
Portugal	2
Puerto Rico	1
Republic of Ireland	8
Russia	2
Scotland	12
South Africa	3
Spain	6
Sri Lanka	1
Turkey	2
Ukraine	2
USA	12
Wales	23
West Africa	1
Yemen	1

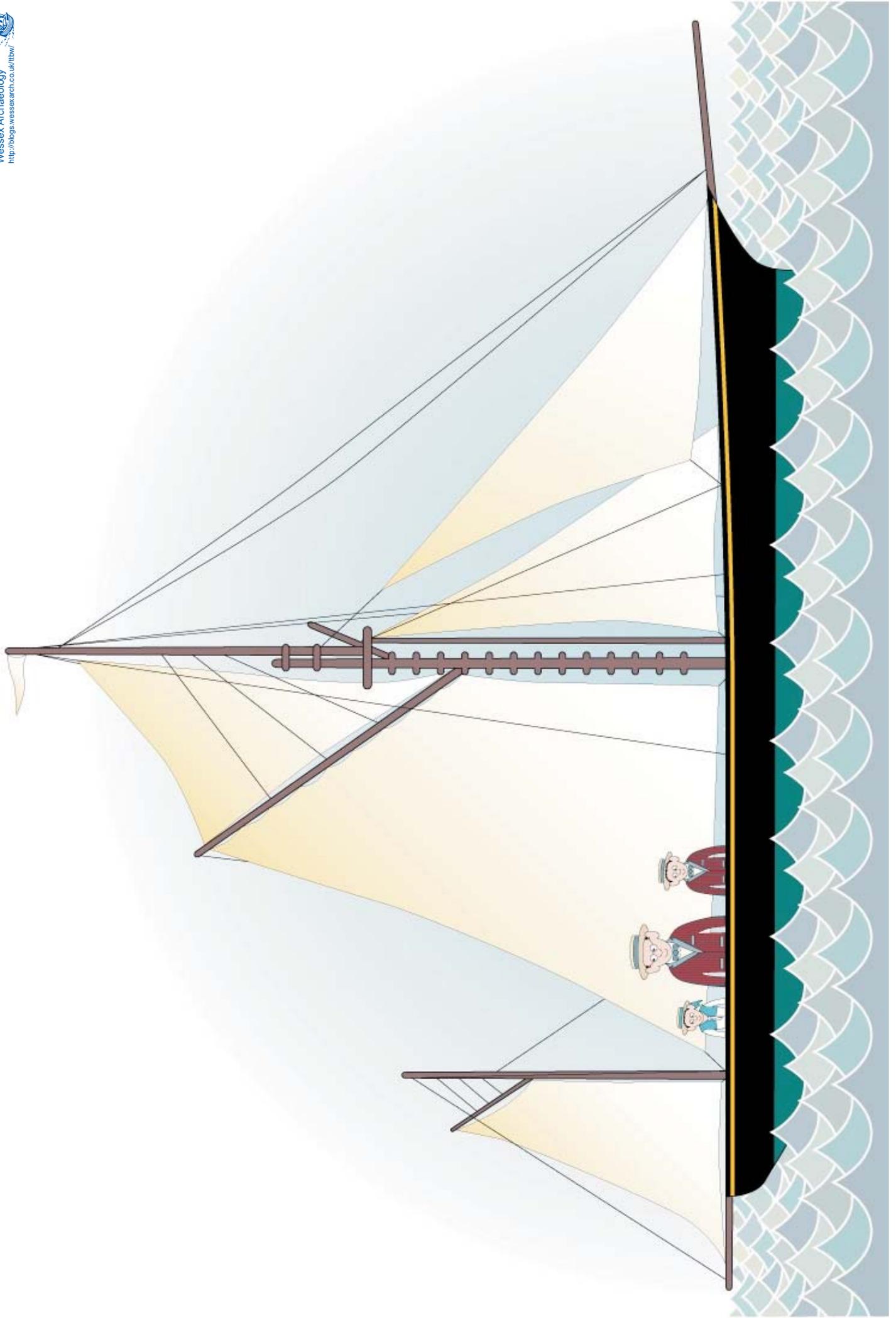


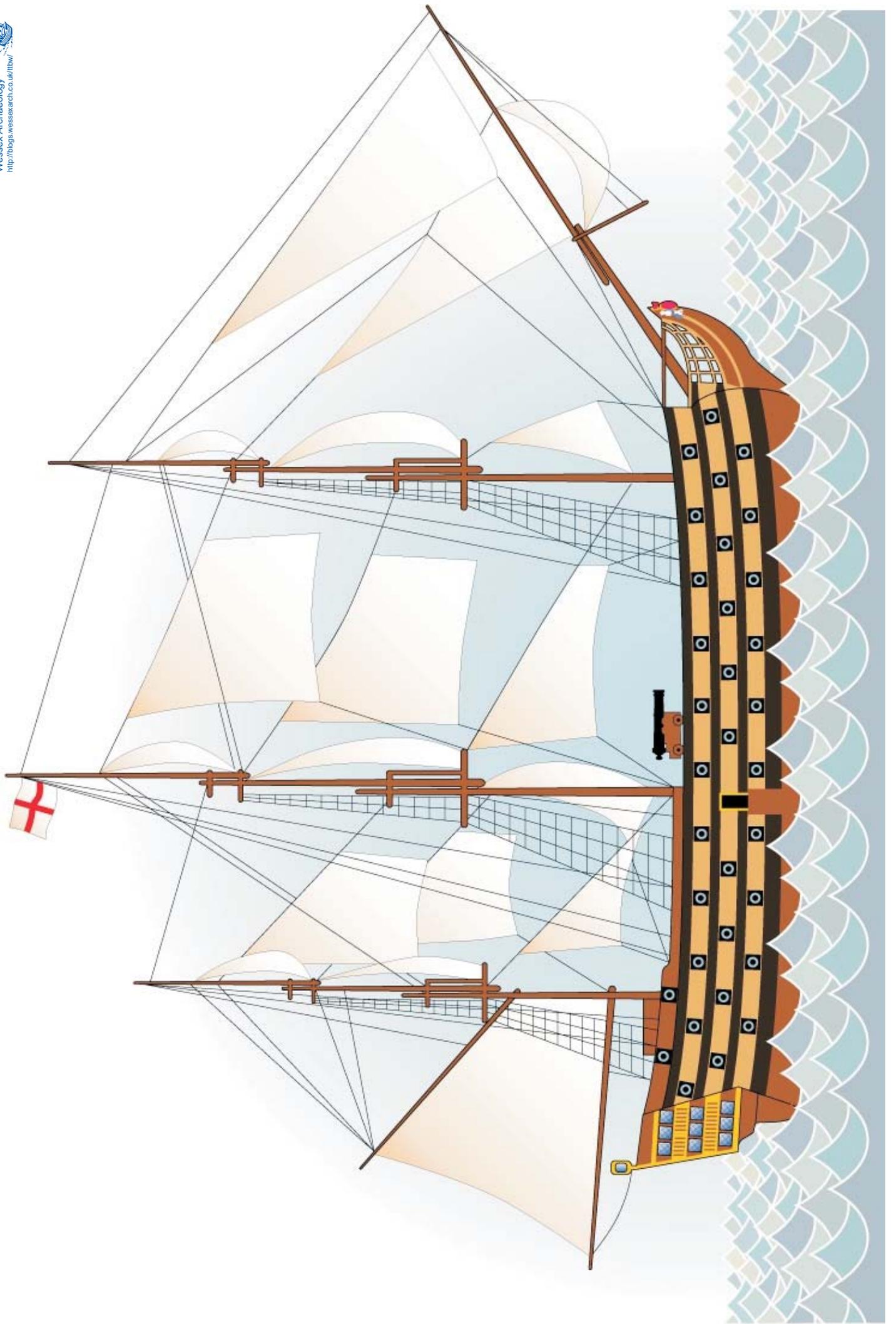


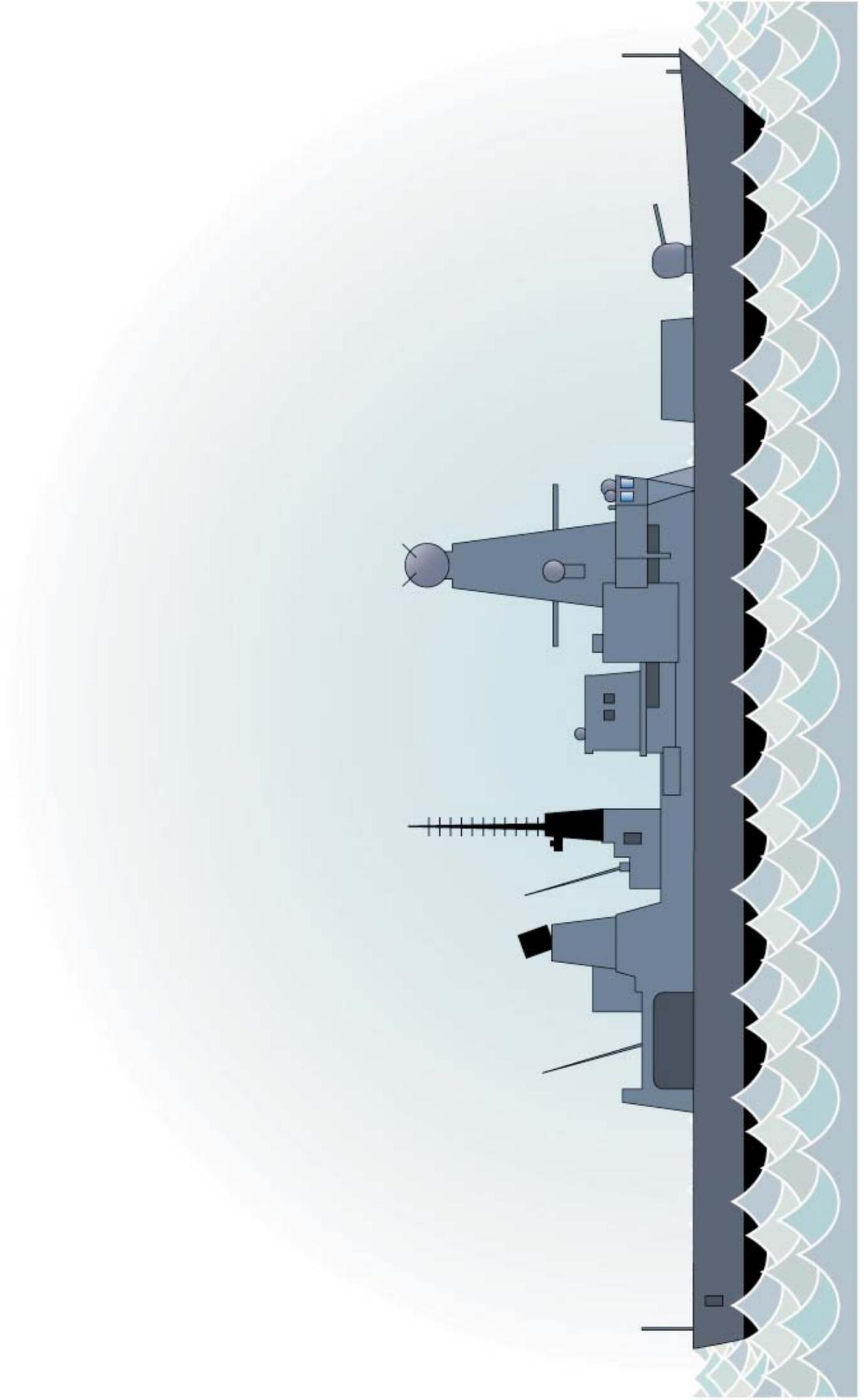




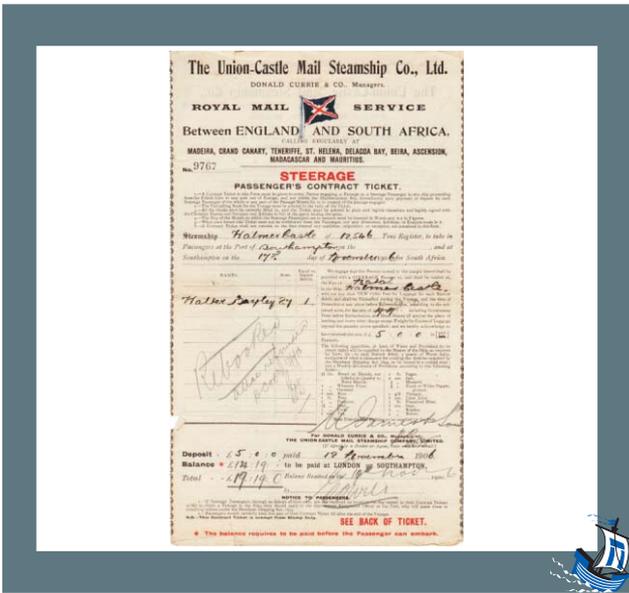
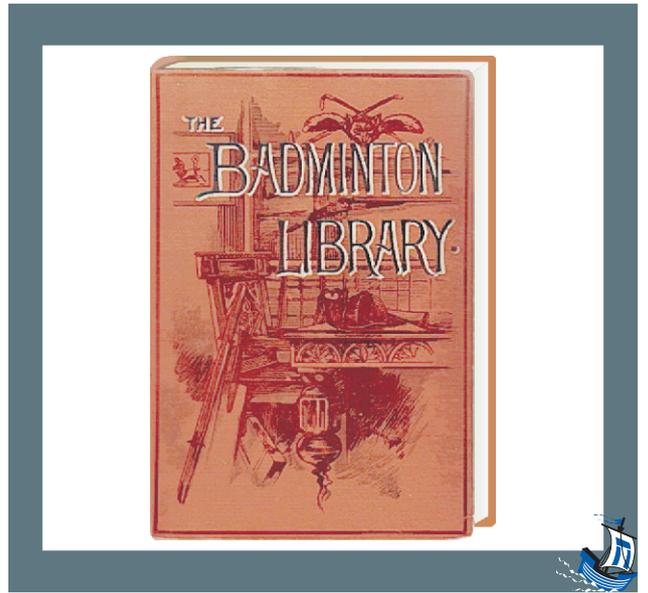










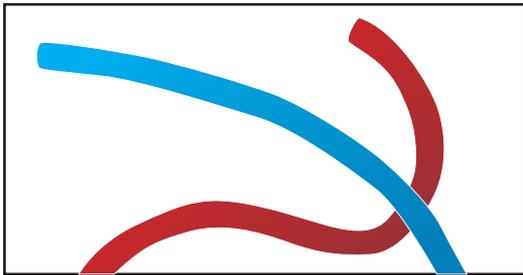


<http://blogs.wessexarch.co.uk/ttbw/>

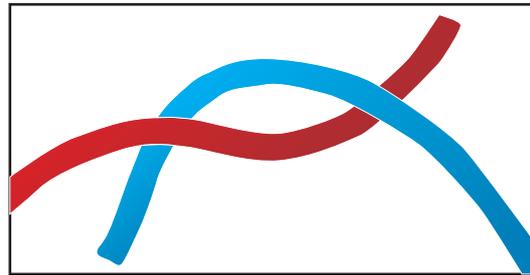


Reef Knot

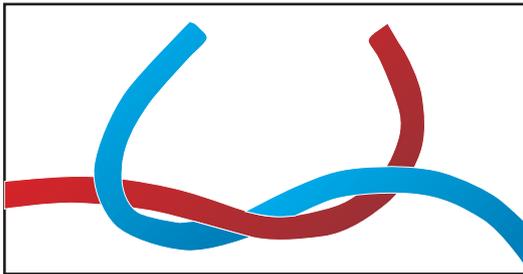
For tying ends of rope around an object
e.g. the neck of a sack, a parcel or a bandage.



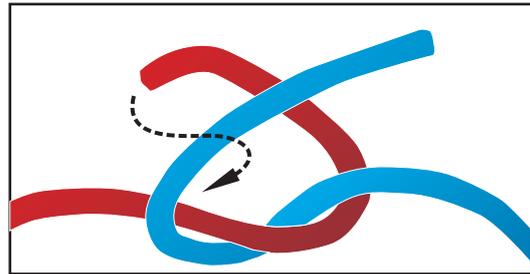
1: Right over left



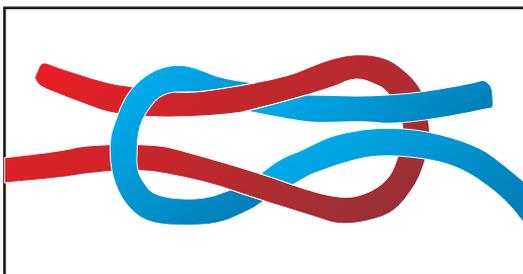
2: Same end...and under



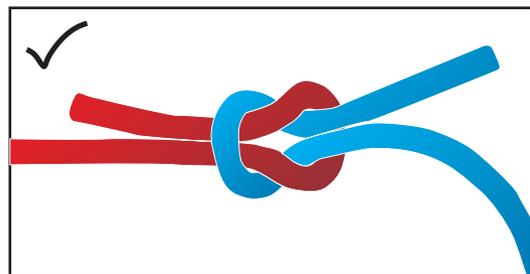
3: Same end...back over



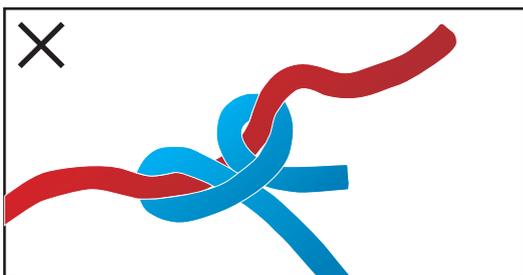
4: Left over right



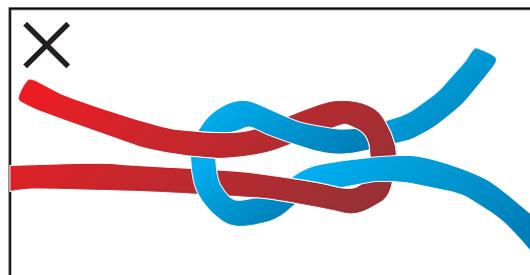
5: And under



6: Pull tight and check



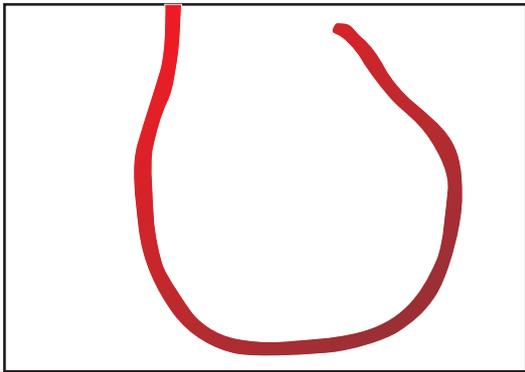
7: Don't pull just one end or the knot will capsize and become undone



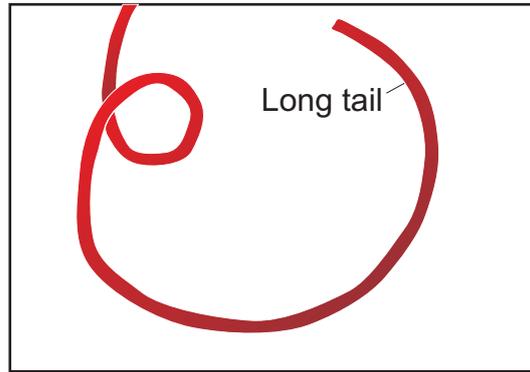
8: Check you haven't tied a granny!

Bowline

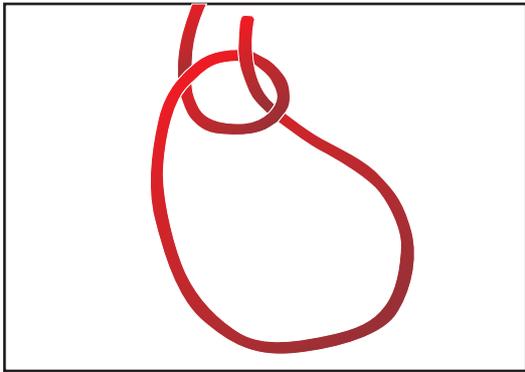
For making a secure loop in a rope.
Easy to undo if you take the strain off the rope.



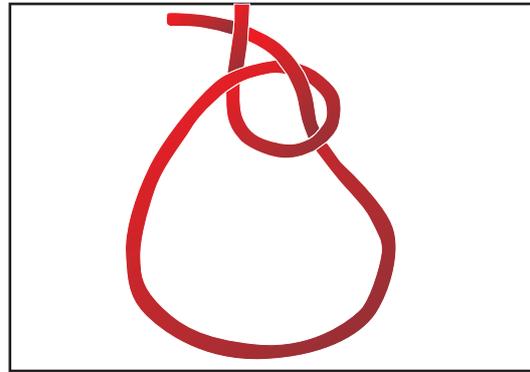
1: Form a bight of the required size



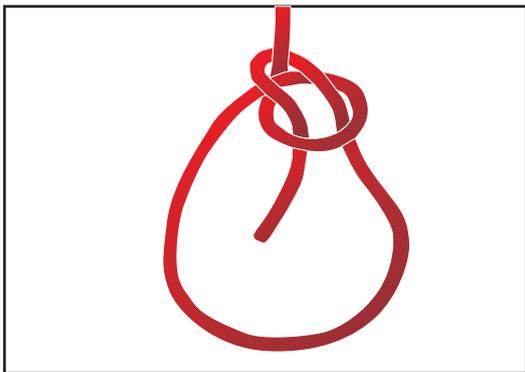
2: Make a small loop



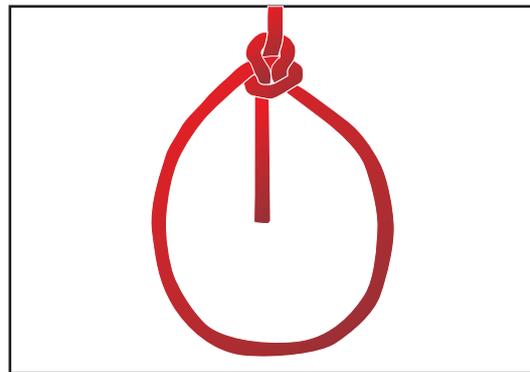
3: Pass the end up through the small loop



4: Pass under the standing part



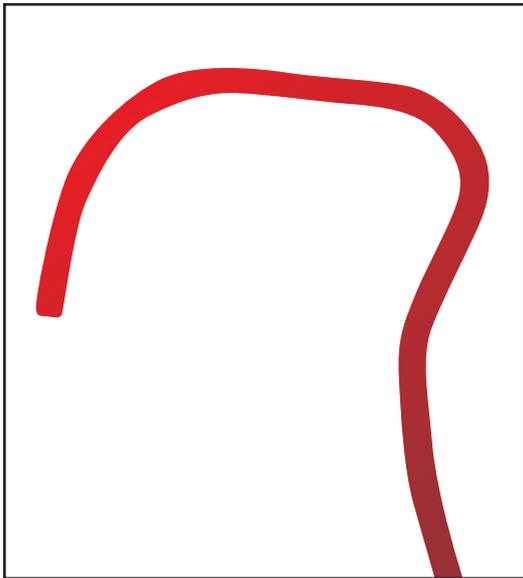
5: Back down through the small loop



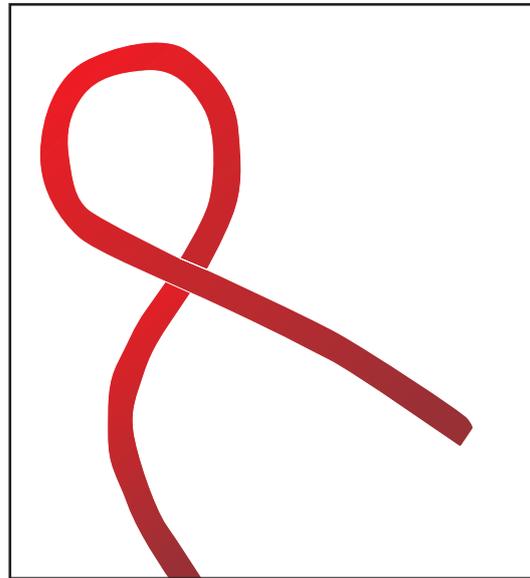
6: Pull tight and check long tail!

Figure of Eight

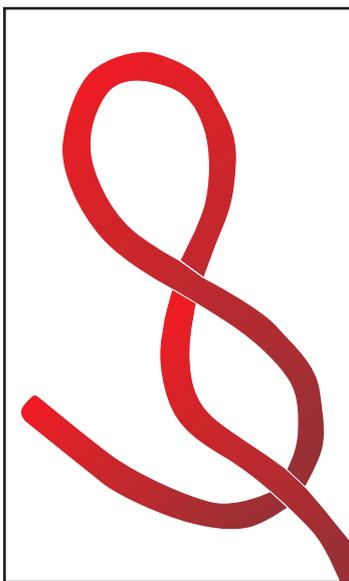
A stopper knot.
Used to stop the end of a rope being pulled through a hole.



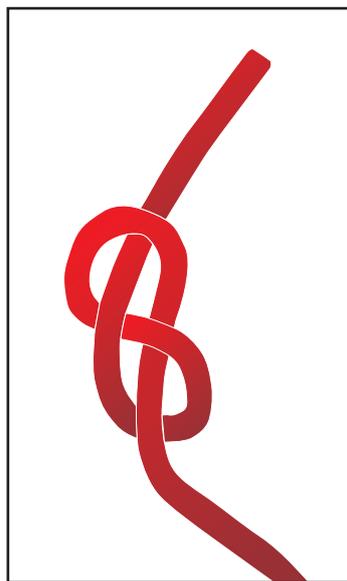
1: Form a bight



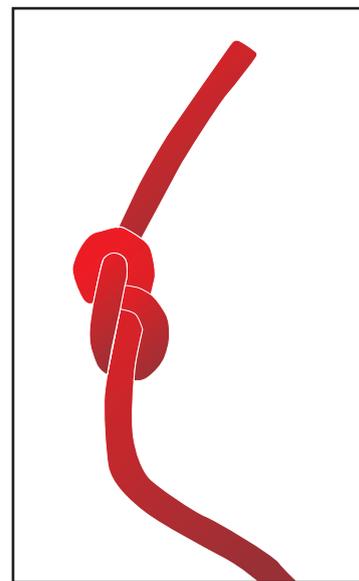
2: Pass the end over the standing part to form a loop



3: Pass the end under the standing part



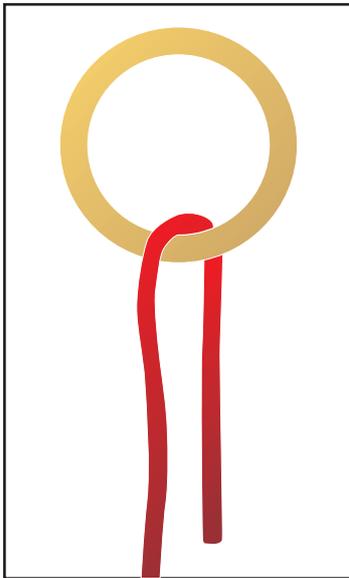
4: Pass the end through the top loop



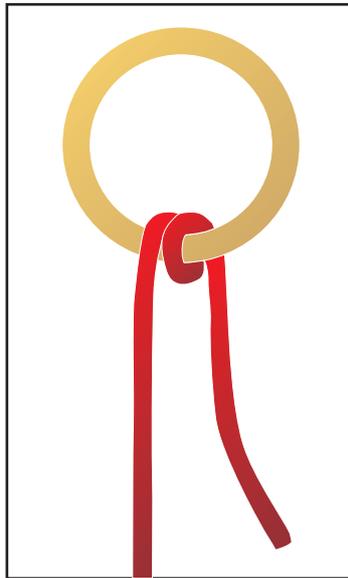
5: Pull tight

Fisherman's Bend / Anchor Hitch

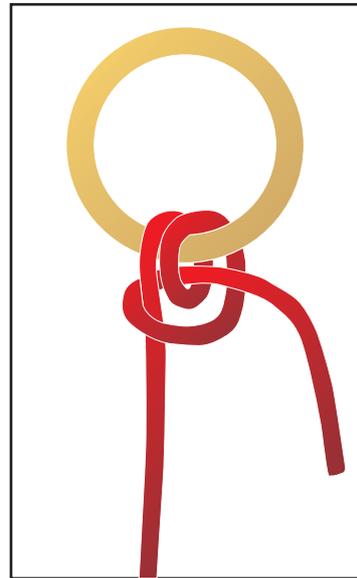
Used to attach a rope to a ring (e.g. anchor).
Similar knot to the round turn and two hitches, but more secure.



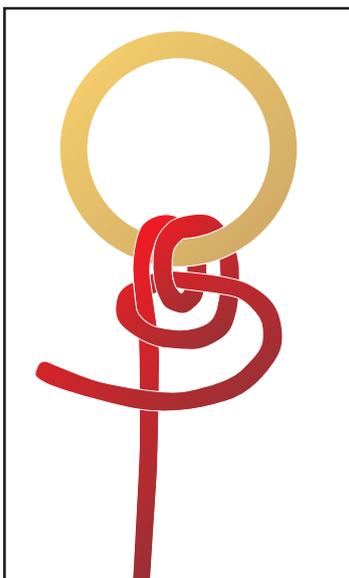
1: Pass the end through the ring



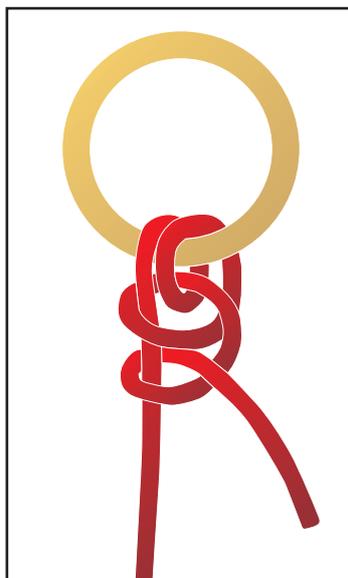
2: Make another turn



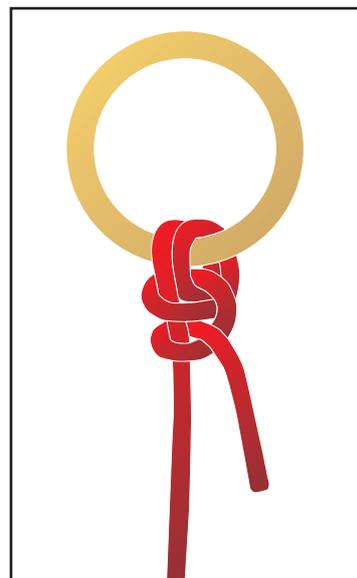
3: Pass the end through the turn



4: Over the standing part



5: Then under to make a half hitch



6: Pull tight



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