

Time Travelling by Water

Wessex Archaeology

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



Tudor Seafaring Teacher's Pack

This teacher's pack contains activities and suggestions to complement the teaching of Tudor seafaring at KS2 and KS3. It was developed from the HLF-funded Time Travelling by Water Project as part of the project legacy.



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Tudor Seafaring

This teacher's pack contains activities and suggestions to complement the teaching of Tudor Seafaring at KS2 and KS3. It was developed from the HLF-funded Time Travelling by Water Project as part of the project legacy.

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 Tudor seafaring
- 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. Artefact picture cards
3. Spice activity clue sheet
4. Spice activity worksheet

Curriculum links at KS2 -

This workshop is designed to support National Curriculum history units 4: *Historical enquiry* and 10: *Britain and the wider world in Tudor times*.

Curriculum links at KS3 -

At KS3 this workshop can be used to support National Curriculum history study unit 4: *Historical enquiry* and unit 9: *Britain 1500-1750*.

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. One of the suggested extension activities can also be used to complement the teaching of numeracy.



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/>

In 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 anything that can teach them about how people have used water in the past.

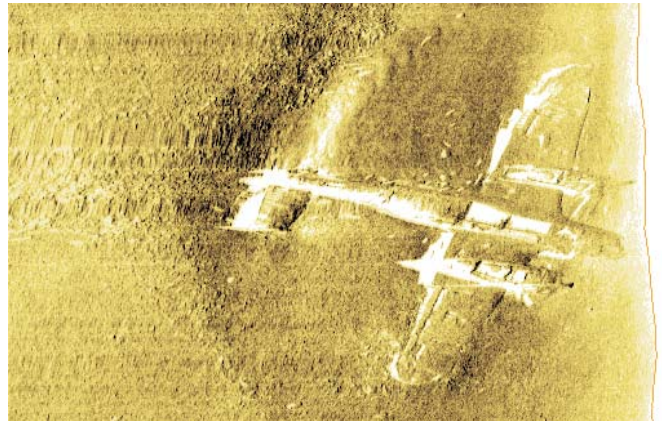
Marine archaeologists are probably best known for diving on shipwrecks, but they also study rivers, lakes, ports, harbours, beaches, bridges... anything that can teach them about people and water in the past.

They have some very clever methods of investigating archaeology underwater. 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, a hard hat and wellies or waders, dress a pupil up to demonstrate this*).

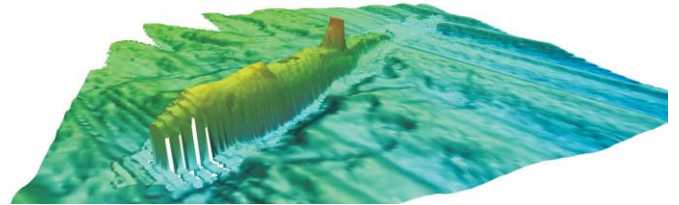
They also work with other people who use the water, such as fisherman and marine aggregate dredgers, and they do something called geophysical survey, or geophys. Geophys is a hi-tech system which uses sound waves to map the sea floor. Look at the pictures that were made using geophysical survey.

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 in 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.



Who's in the box?

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

Print off the series of clues – pictures of artefacts – and cut them out so that each artefact is on its own piece of paper or card.

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 find out:

Who they belonged to

When that person lived

What that person did as a job

Give one card to each pair of pupils (depending on the size of the class) and ask them to study and discuss it.

What does their picture show? What can they learn from it? Can they tell when this item was used? Or who might have used it?

Some of the items may be unfamiliar to them – in this case encourage your pupils to tell you as much as they are able to about the item, such as what it is made of and to have a guess at what it was used for.

After a few minutes study, ask the pupils to stand up and tell the class what they learnt from their picture. Supplement what they say with the information about each item included in the teacher's notes (see below).

By the time everyone has had a turn they should have a good idea of who the items belonged to. But are they right?

The answer is – **a Tudor sailor**.

For older groups you could discuss what class of sailor owned these things – was it a common man or a higher ranking man? What is the evidence?



Teacher's notes

Plane –



Tools like this plane are used to work wood. This example is used to suggest that the ship on which our sailor is working is wooden, not metal as many modern ships are.

Ruff –



Many of the class will recognise this from Tudor portraits such as those of Henry VIII and Elizabeth I. This may give them an idea of what time period these finds belong to – but can

they prove it? Ruffs were worn from the mid-sixteenth to the mid-seventeenth century. This one may not be Tudor.

Coins –



Coins can provide excellent dating evidence. We have provided coins from two monarchs – Henry VIII and Elizabeth I – so stress that in this instance the items

must date from the Elizabethan period. This is the evidence that should lead your class to understand that these finds are Tudor.

Sounding lead –



This is a sounding lead. It has a hole through it vertically that would have held a string and it has a hollow in its base which would have had sticky

animal fat called tallow pressed into it. The leadsman on the ship would hurl the weight forwards over the side of the ship. He would then walk along the deck until the string attached to it became vertical. The leadsman could then 'read' the depth of the water from the string. To do this quickly or in the dark, lengths of material would

be tied at measured intervals along the string. The leadsman could then read the depth by sight or feel. The animal fat would collect a small sample of sand, gravel or shells from the seabed and the leadsman could use this to navigate. If the tallow were to come back clean the ship might be over rock – watch out!

Feathers –



Used for writing and for decoration on hats and clothing.

Shoe –



Most pupils will identify this straight away as a shoe. Encourage them to describe it and to identify the differences between it and their shoes. Do they think that this is a modern shoe?

Might it be older?

Treasure –



Depending what aspect of the period you are studying you might want to include this card to illustrate the treasure galleons that sailed to and from South America and caused friction with Spain.

Compass –



This is a compass and sundial. Who might have used it and what was it used for? Talk about the type of people that may have needed to use an item like this one, such as sailors. Highlight that to read a

sundial the user must face to the south – how would the compass help with this?



Teacher's notes

Pomander –



Tudor sailors didn't have showers or baths, the common men wouldn't have had a change of clothes, or even a bed or a hammock. They would wear the same clothes when working, when hot, when cold, when sleeping, when the waves were washing over the deck or when the sun was beating

down. On a long voyage they would wear the same clothes for months at a time. There was no spare water on board ship for washing. The richer men may have carried a pomander similar to this example – a replica of one from the Mary Rose. It would be filled with sweet smelling spices and hung from the neck or the waist band to try and combat the smell on board the ship. Do you think it would be very effective?

Dice –



This dice is made of animal bone. Animal bone was a very common and cheap material, so why is the dice so small? Tudor sailors were banned from playing many sports and games as they

were to spend most of their waking hours working – gambling with dice would distract them from this. Consequently dice like this one were made very small so that they could be hidden between the fingers of the hand.

Pulley –



Another clue as to the job of this person. What is it? And where are these used? Your class may recognise this from ships that they have seen in pictures or in films, though of course they are

not only used on boats.

Pottery –



Archaeologists use pottery as well as coins to date sites because pottery manufacture changes throughout time. This pottery dates from the Tudor period. The clue is in the green glaze on the inside of the pottery. This was first introduced in the medieval period and is a clear indicator to archaeologists as to the age of this pottery.

Nit combs (and their cases) –



Nits were rife on Tudor ships and in Tudor life generally. There were many nit combs found on the Mary Rose as many men would tuck a comb into their clothing to keep it close to them at all times. Water preserves artefacts so well that the archaeologists studying the finds from the Mary Rose found that some combs still had, caught between their teeth, the nits, still in place after four hundred and fifty years!

Candles –



These candles are made of beeswax. Ask the class why they are joined at the wicks. Tell them that old fashioned candles were made by dipping string into hot wax. By dipping both ends of the string at once the candle maker doubled his output. They could also be hung up for sale.

Rope –



Another clue as to the job of this person.



Teacher's notes

Hag stone or witch stone –



For centuries people have believed that stones with natural holes in them could bring luck. Luck was especially important to Tudor sailors as they couldn't swim. A Tudor sailor could have collected this stone and kept it to

bring good luck. If the ship you were on was sinking and you couldn't swim do you think you would want a lucky stone hanging around your neck or in your pocket? Tudor sailors couldn't swim as they were very superstitious and believed that learning to swim might bring bad luck and jinx the ship. Also, if a man fell overboard the ship would not turn around to save him as manoeuvring Tudor vessels was very difficult. Knowing how to swim would therefore make the inevitable last longer.

Platter –



This large square plate is how we get the expression 'a square meal'. The small hole would have held salt. It is sometimes known as a trencher.

Horn cup –



This little cup is made out of cow's horn. The Tudors removed the centre of the horn, the core, leaving just the outer layer of horn. The outer layer could be used to make things like this cup or could be used in lanterns in place of glass.

Horn spoon –



This spoon might look like shiny plastic, but it is made of cow's horn. Cow's horn softens and can even

dissolve if it comes in contact with boiling water!

Flask –



Most pupils will identify that this is a flask. Ask them what they think would have been inside it? Most will say water – point out that, for example, on Tudor ships water quickly stagnated and so the men would drink weak beer or rum for the voyage. Most pupils will probably think that this sounds like fun. Ask them if they still think this would be fun on a hot day when they are working really hard in a physically demanding job like that of a sailor?

Latin book –



Is this like any of the books in the classroom? What clues reveal its great age?

Rushlight –



This strange looking item is a rushlight. The thicker part on the left (above the hand in this picture) is round and is designed to hold a candle. However, candles were expensive. On days when a candle was not available people would use a rush that had been dipped in animal fat. It could then be clamped in the other part of the lamp (shown pivoted open in this picture) which would hold it whilst it slowly burned giving a dim light.

Armada medal –



These gold medals were minted for important sailors who sailed against the Spanish Armada. Include this card if you are studying the Armada or the events associated with it.



Extension activities

Literacy -

The 'Who's in the box' activity gives some clues as to what it was really like to be a Tudor sailor. It was smelly and hard work. You could be away from home for months at a time. You could be miles from the nearest land in heavy weather with no idea how to swim and you would have been drinking beer everyday. Ask the class to write an imaginative account of what it was like to be a Tudor sailor remembering everything they have learnt from this activity.

Numeracy –

Make a sounding lead. A replica lead can be made from string, foil and play dough or putty. Shape the foil into the right shape around the string (look at the picture in the 'Who's in the box' activity or pictures on the internet to help). Press the putty into the base of the lead. Traditionally lengths of material would have been tied at 2, 3, 5, 7, 10, 13, 15, 17, and 20 fathoms, a fathom being the length between a grown up's hands when their arms are extended (about 180 centimetres). Have the class tie different pieces of material around the string of their lead at defined intervals. Either use the traditional fathoms or define your own measurements – every metre, every 15cm etc. or explore imperial measurements. Remember that measurements have to be accurate – get it wrong and you risk losing the ship!

Geography –

Put a map on the whiteboard and use it to illustrate the places that the Tudors sailed to. Explore the exotic new foods and spices that were coming from the East Indies and South America. Bring in examples of these things and have the class use their sense of smell to identify them. Use the clue sheet and worksheets that can be downloaded from <http://blogs.wessexarch.co.uk/ttbw/teacherspacks/> or found at the back of this pack. Use the map to demonstrate where these things came from.

Art –

Tudor merchants such as Thomas Gresham (more information on Wessex Archaeology's website) would have been very keen to show off their wealth. Tell the class that they have been commissioned to produce a tapestry for him. It will be seen by everyone who comes to his house, including possibly Queen Elizabeth I, and must be a very fine tapestry. He wants it to show his life and career to show how wealthy and powerful he is. What do you think would make good pictures for his tapestry? Discuss this as a class or explore the history of the Gresham shipwreck on Wessex Archaeology's website for inspiration:

Ideas:

1. His ship firing cannons
2. Tudor navigational tools (taken from the 'Who's in the box' activity)
3. Gresham himself or other famous people from Tudor times
4. His ships

Ask each pupil to design one image for the tapestry and to draw or paint it on paper. Piece them together and display in the classroom.



ICT activity – Suitable for KS3 pupils

N.B. Check first that the Wessex Archaeology website is allowed by your school's internet protection service. The site content is safe for children. <http://www.wessexarch.co.uk/projects/marine/thameswreck/exhibition>

The Gresham Shipwreck

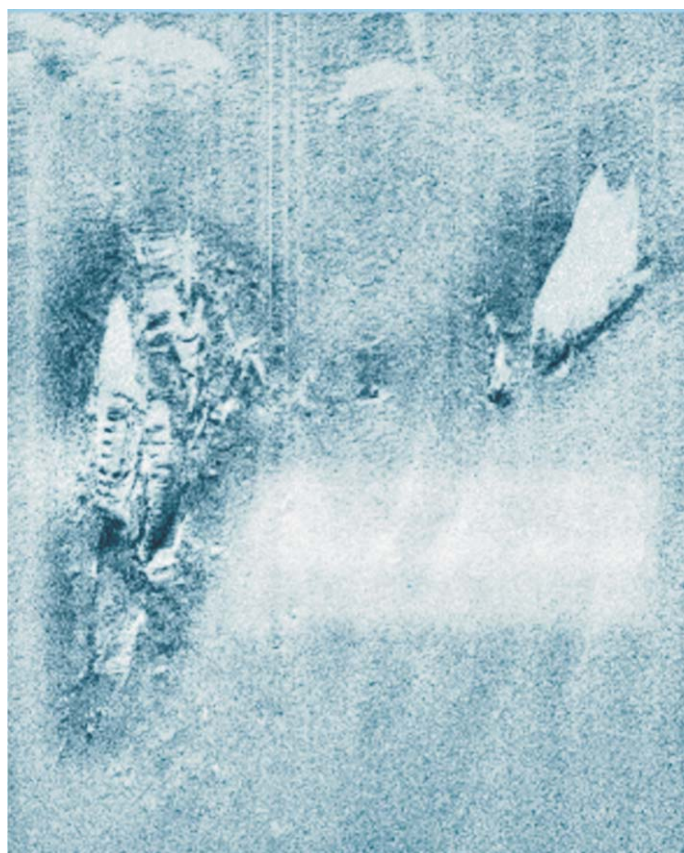
This shipwreck was found by Wessex Archaeology in the Thames in London. It is Tudor and is thought to have belonged to Thomas Gresham – a famous and influential merchant who was known to Queen Elizabeth.



Part of the shipwreck being lifted

Use the above website to answer these questions:

1. Why do archaeologists think that the ship might have belonged to Thomas Gresham?
2. How did archaeologists work out how old this ship was?
3. Why do archaeologists think that the ship sank?
4. What is Thomas Gresham's personal symbol?
5. What type of cargo was on board the ship when it sank?
6. Thomas Gresham undertook smuggling - what did he smuggle out of the Netherlands? And what did he disguise it as?

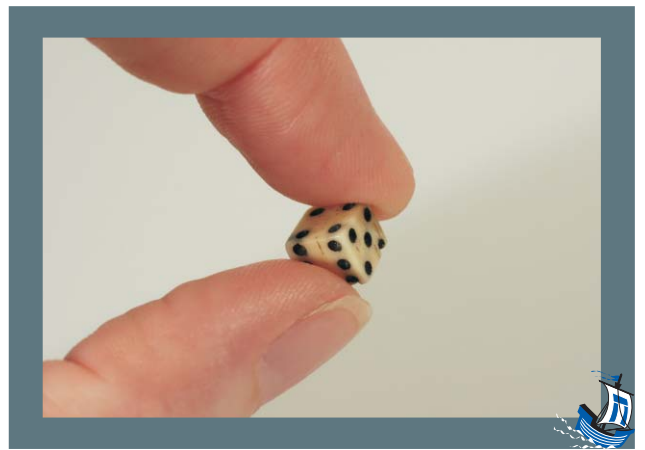
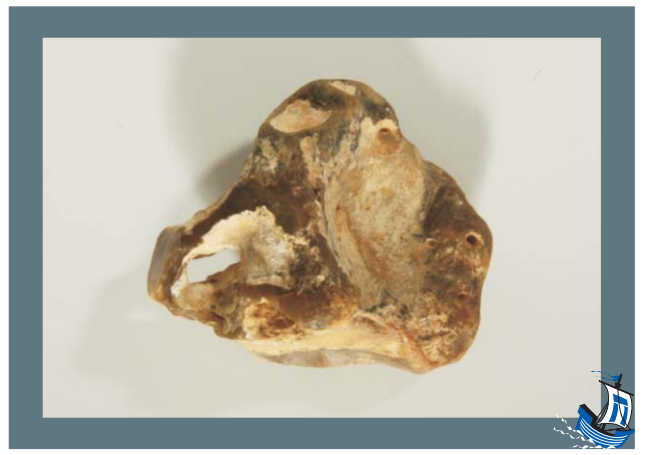


Geophysical survey image









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Tudor Seafaring

Why did the Tudors go to sea?



Garlic

Cocoa

Vanilla

Peppercorns

Cinnamon

Nutmeg

Ginger

Potatoes

Cloves

Paprika

Mustard Seed



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Why did the Tudors go to sea?



CLUES

Garlic – White 'bulb' which doesn't smell unless you cut it up.
Tudor sailors bought these to Britain from the East Indies.

Cocoa – Brown powder which smells like chocolate!
The Tudors found this in South America and brought it to Britain.

Vanilla – Black seed pod which smells like ice cream.
Vanilla came to Britain for the first time in the Tudor period,
after it was discovered in South America.

Peppercorns – Black balls which smell of pepper.
Tudor sailors bought these to Britain from the East Indies.

Cinnamon – Sweet smelling brown powder or brown sticks.
The Tudors bought these by boat from the East Indies.

Nutmeg – Sweet and 'warm' smelling light brown powder.
The Tudors imported nutmeg from the East Indies.

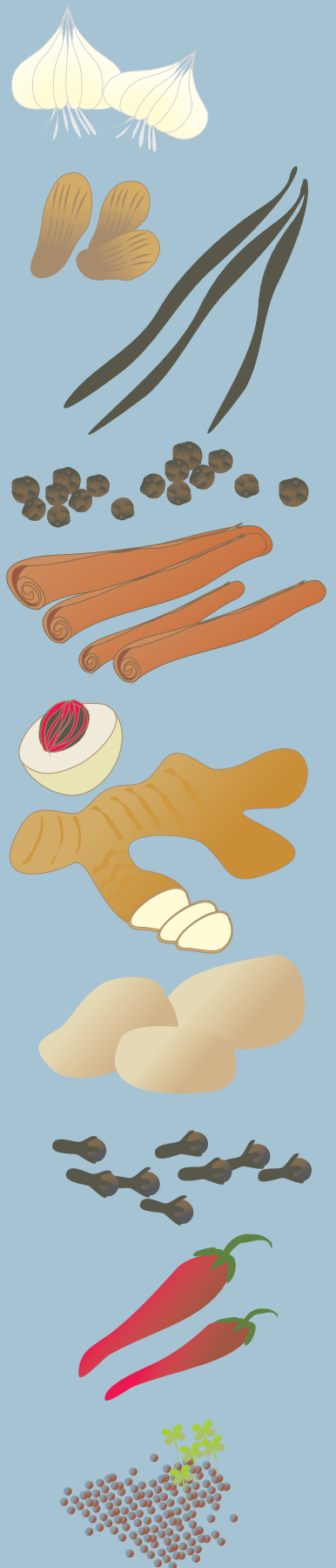
Ginger – This is a spicy smelling light brown powder.
The Tudors bought ginger by boat from the East Indies.

Potatoes – These look like potatoes! Before the Tudor period,
no one in Britain had seen potatoes. They were introduced from
South America.

Cloves – Strong smelling black spiky balls.
Tudor sailors bought these to Britain from the East Indies.

Paprika – Sweet and spicy smelling red powder.
The Tudors brought this to Britain from South America.

Mustard Seed – Small yellow seeds which are used to make
mustard. The Tudors bought these by boat from the East Indies.





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