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# The Beagle Voyage

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Activity 1: Devonport: Design a cabin  
Subject: Design and technology  
90 minutes

## Suggested preparation

Presentation:  
[The Beagle Voyage](#)

## What do I need?

Letter 126: Charles Darwin to Susan Darwin  
Devonport diary entries  
Letter questions: design a cabin  
Blueprint of Beagle  
Beagle factfile  
King's plan of cabin  
Model of Beagle  
Who's who?

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Darwin joined HMS *Beagle* in Plymouth on 31st October 1831, with feelings of excitement mixed with apprehension for the voyage. He was anxious about the lack of cabin space to contain his collections and carry out his research. Use the images and texts describing Darwin's cabin to help you to design a research cabin suitable for today.

# What do I do?

1. Read through the letter and diary extracts and answer the letter questions.
2. Study the images, plans and dimensions of Darwin's cabin.
3. Create a scale design of a cabin that would be suitable for a 5 year observational natural history voyage today.

Consider the following:

- What research materials and equipment would you need? Where would you store it?
  - How would you make the space flexible enough to share with others, if necessary?
  - What personal belongings would you bring and how could you store them?
4. Colour code each design feature of the cabin and provide a key to the code.
  5. Vote for the most successful design.

## Letter 126: Charles Darwin to Susan Darwin

Wednesday evening Devonport

My dear Susan

I arrived here yesterday evening: after a very prosperous sail of three days from London.— I suppose breathing the same air as a sea Captain is a sort of a preventive: for I scarcely ever spent three pleasanter days.— of course there were a few moments of giddiness, as for sickness I utterly scorn the very name of it.— There were 5 or 6 very agreeable people on board, & we formed a table & stuck together, & most jolly dinners they were.—...

Perhaps you thought I admired my beau ideal of a Captain in my former letters: all that is quite a joke to what I now feel.— Every body praises him, (whether or no they know my connection with him) & indeed, judging from the little I have seen of him, he well deserves it.— Not that I suppose it is likely that such violent admiration—as I feel for him—can possibly last.— No man is a hero to his valet, as the old saying goes.—& I certainly shall be in much the same predicament as one.—

The vessel is a very small one; three masted; & carrying 10 guns: but every body says it is the best sort for our work, & of its class it is an excellent vessel: new, but well tried, & 1/2 again the usual strength.— The want of room is very bad, but we must make the best of it.— I like the officers, (as Cap. F. says they would not do for St. James, but they are evidently very intelligent, active determined set of young fellows.— I keep on ballancing accounts; there are several contra's, which I did not expect, but on the other hand the pro's far outweigh them.—...

I found the money at the Bank, & am much obliged to my Father for it.— My spirits about the voyage are like the tide, which runs one way & that is in favor of it, but it does so by a number of little waves, which may represent all the doubts & hopes that are continually changing in my mind. After such a wonderful high wrought simile I will write no more. So good bye, my dear Susan.



Yours C.Darwin

Love to my Father. —

# Darwin's Diary on board HMS Beagle

24 October 1831

Arrived here in the evening after a pleasant drive from London.

25 October 1831

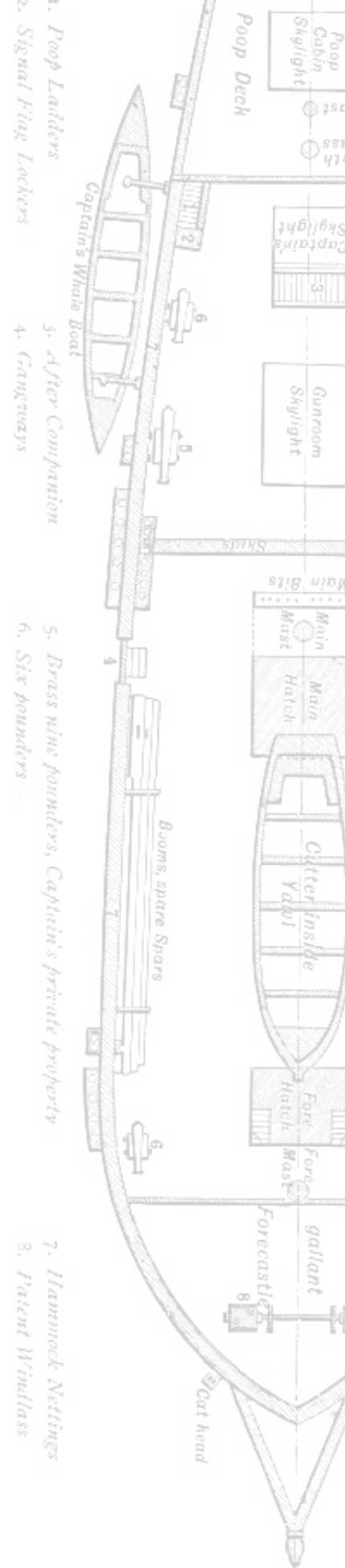
Went on board the *Beagle*, found her moored to the Active hulk & in a state of bustle & confusion. — The men were chiefly employed in painting the fore part & fitting up the Cabins. — The last time I saw her on the 12th of October Sept. she was in the Dock yard & without her masts or bulkheads & looked more like a wreck than a vessel commissioned to go round the world.

26 October 1831

Wet cold day, went on board, found the Carpenters busy fitting up the drawers in the Poop Cabin. My own private corner looks so small that I cannot help fearing that many of my things must be left behind. —

22nd November 1831

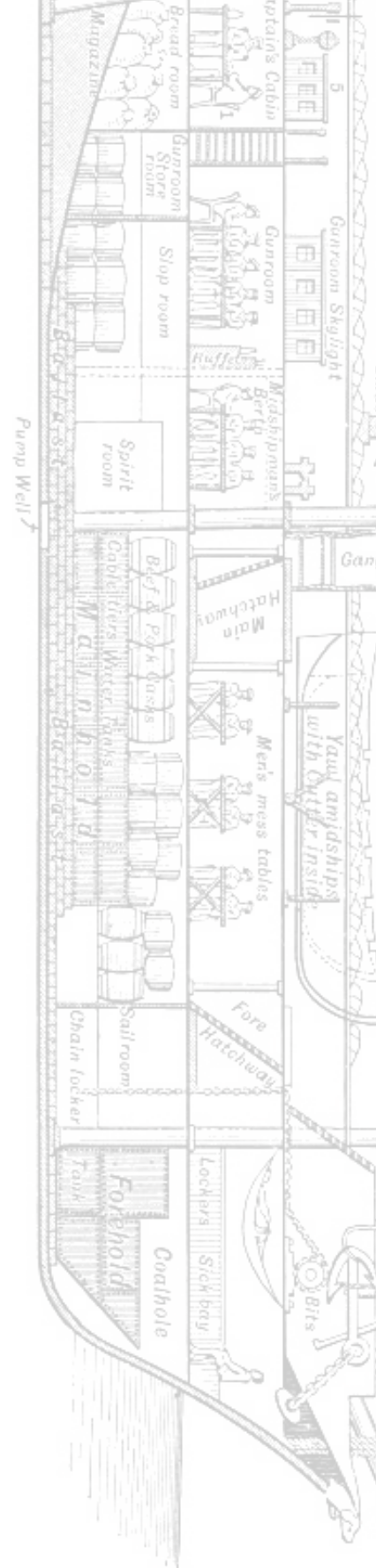
Went on board & returned in a panic on the old subject want of room. returned to the vessel with Cap FitzRoy, who is such an effectual & goodnatured contriver that the very drawers enlarge on his appearance & all difficulties smooth away.



## Letter questions: design a cabin

Using Letter 126 and the diary extracts, answer the following questions:

1. What does Darwin think of the ship and the crew that he is about to set sail with?
2. What does he think of Captain FitzRoy and why does he think his feelings might change?
3. How does he feel about going on the voyage at this point?



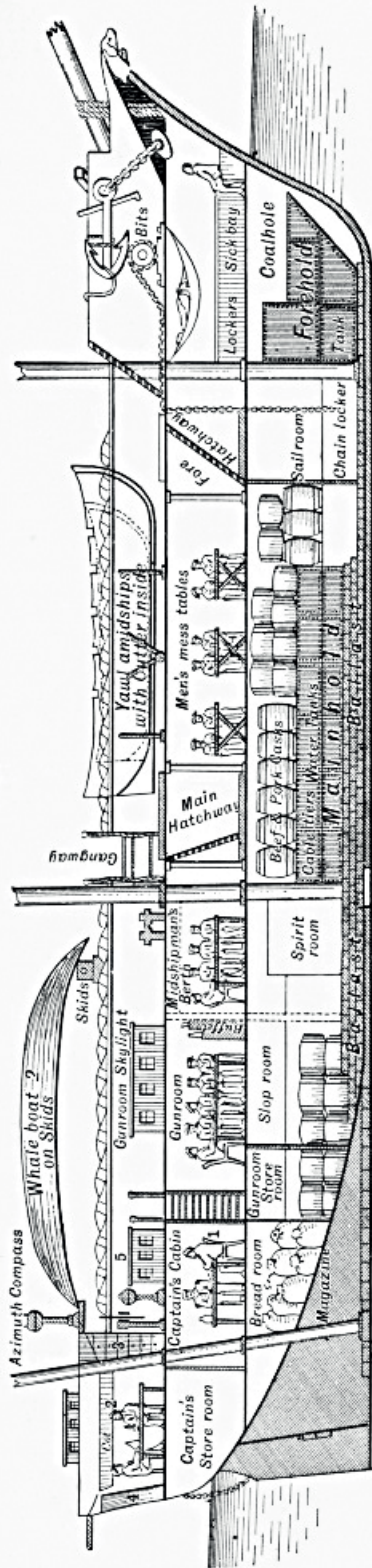


# Blueprint of Beagle

## H.M.S. BEAGLE

MIDDLE SECTION FORE AND AFT

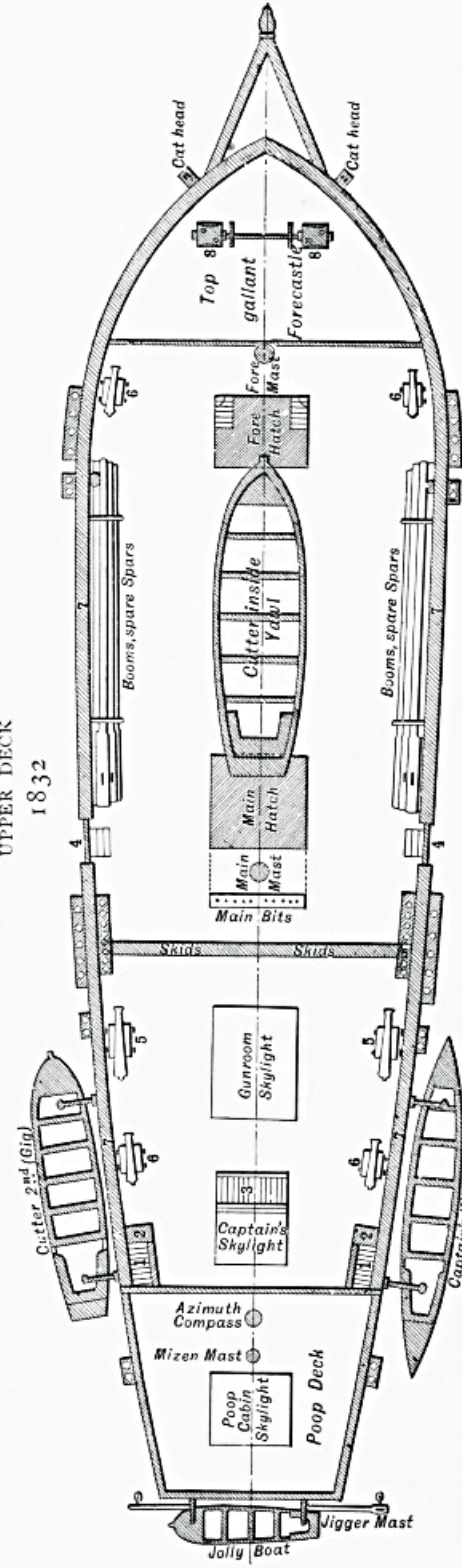
1832



- 1. Mr. Darwin's Seat in Captain's Cabin
- 2. Mr. Darwin's Seat in Poop Cabin with Cot slung behind him
- 3. Mr. Darwin's Chest of Drawers
- 4. Boobcase
- 5. Captain's Skylight

## UPPER DECK

1832



- 1. Poop Ladders
- 2. Signal Flag Lockers
- 3. After Companion
- 4. Gangways
- 5. Brass nine pounders, Captain's private property
- 6. Six pounders
- 7. Hammock Nettings
- 8. Patent Windlass

Drawing by Darwin's shipmate, PG King

# Beagle factfile

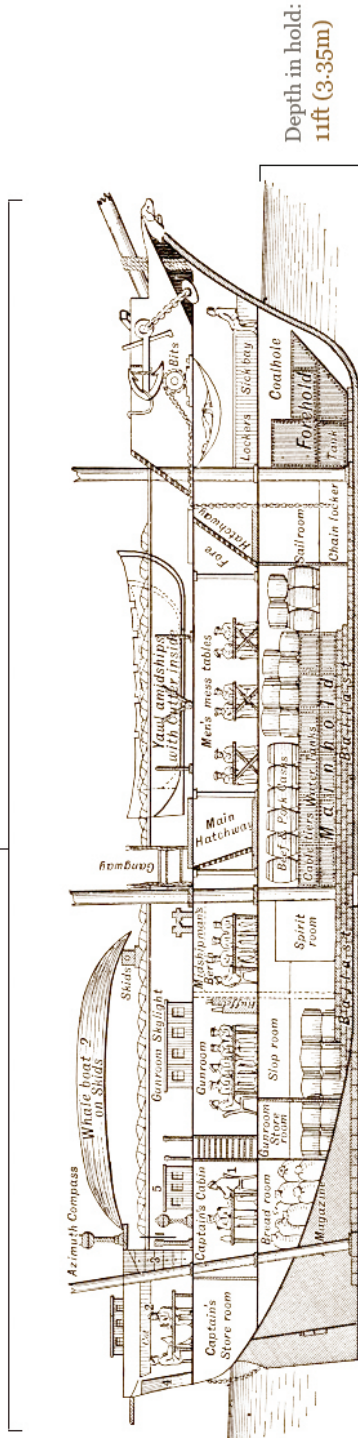
## Specifications

Length: 90 ft long (27m)

Tonnage: 235

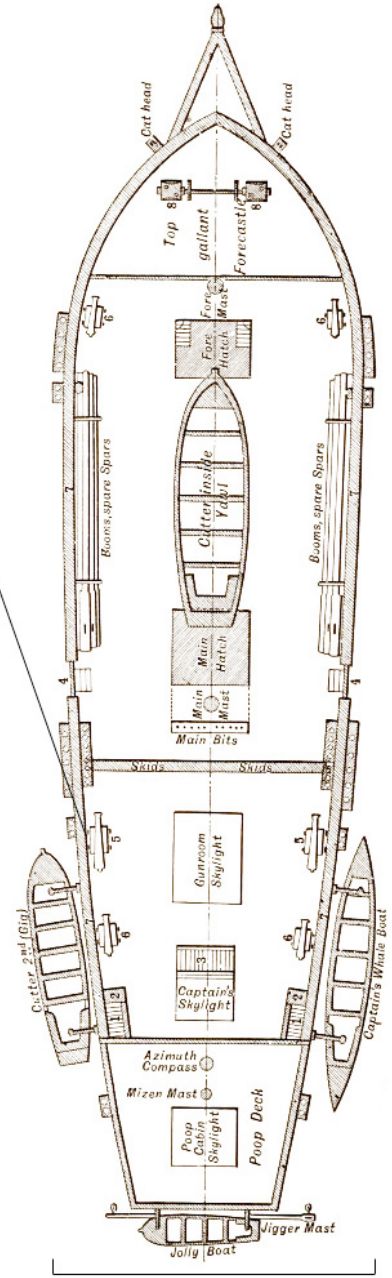
Cost: £7,803

Launched: 11 May 1820



Armament: 10 guns, reduced to 6 for survey voyages.

10 gun brig/ brig sloop: 10 gun brigs were often referred to as 'coffin brigs' as they were not easy to manoeuvre and had a tendency to sink!



Breadth extreme: 24 ft 6in (7.5)



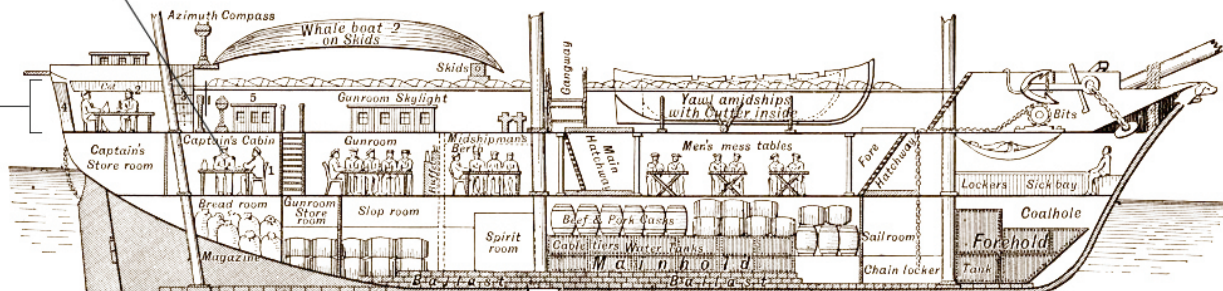
## Voyages

First voyage: 1825-1830

Captain: Pringle Stokes

Mission: To accompany HMS Adventure in a hydrographic survey of Patagonia and Tierra del Fuego.

An **hydrographic survey** is the science of measuring and describing features which affect maritime navigation



Second voyage: 1831-1836

Captain: Robert Fitzroy

Mission: To accompany HMS Adventure in a hydrographic survey of Patagonia and Tierra del Fuego.

Crew: 74, including Charles Darwin

Darwin's Cabin: Poop cabin, roughly 11ft x 10ft, shared with other surveying officers

Captain **Robert Fitzroy** had been made captain during the earlier voyage of the Beagle following the suicide of Pringle Stokes mid-voyage. Many of the crew sailed with Fitzroy again on the second voyage. Darwin referred to Fitzroy as his 'beau ideal of a captain'.

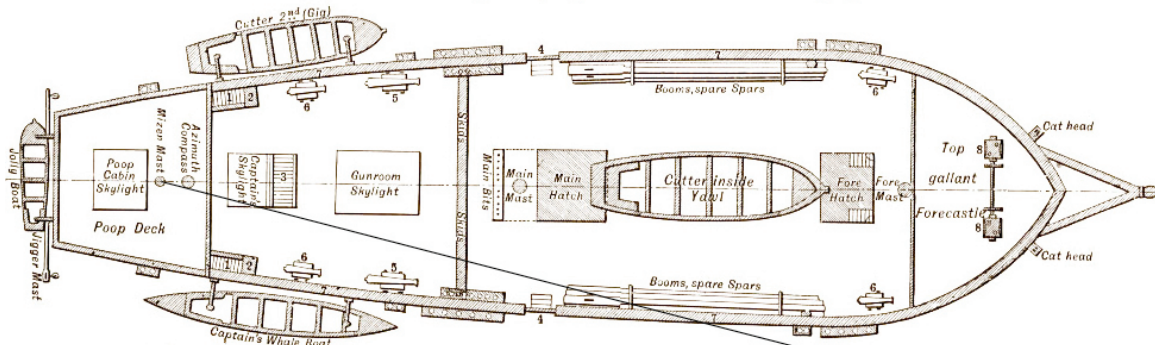
**Darwin** was recruited as a companion to Fitzroy who paid for his own passage on the voyage, which meant he was not under Fitzroy's command.

Space was so limited in **Darwin's cabin** that he had to remove the top drawer of a chest each night to rig up his hammock!



## Repairs and modifications

1825 – in preparation for the first voyage

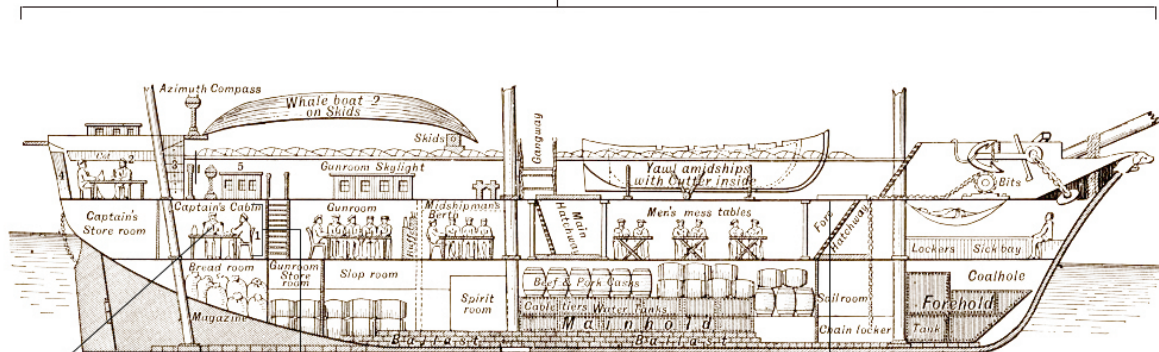


Rig changed from a brig to a barque through the addition of a third (a mizzen) mast.

**Result:** ship is more efficient with a smaller surveying crew.

1831- in preparation for second voyage

Extensive refit and improvements: total cost only £220 less than original construction cost.



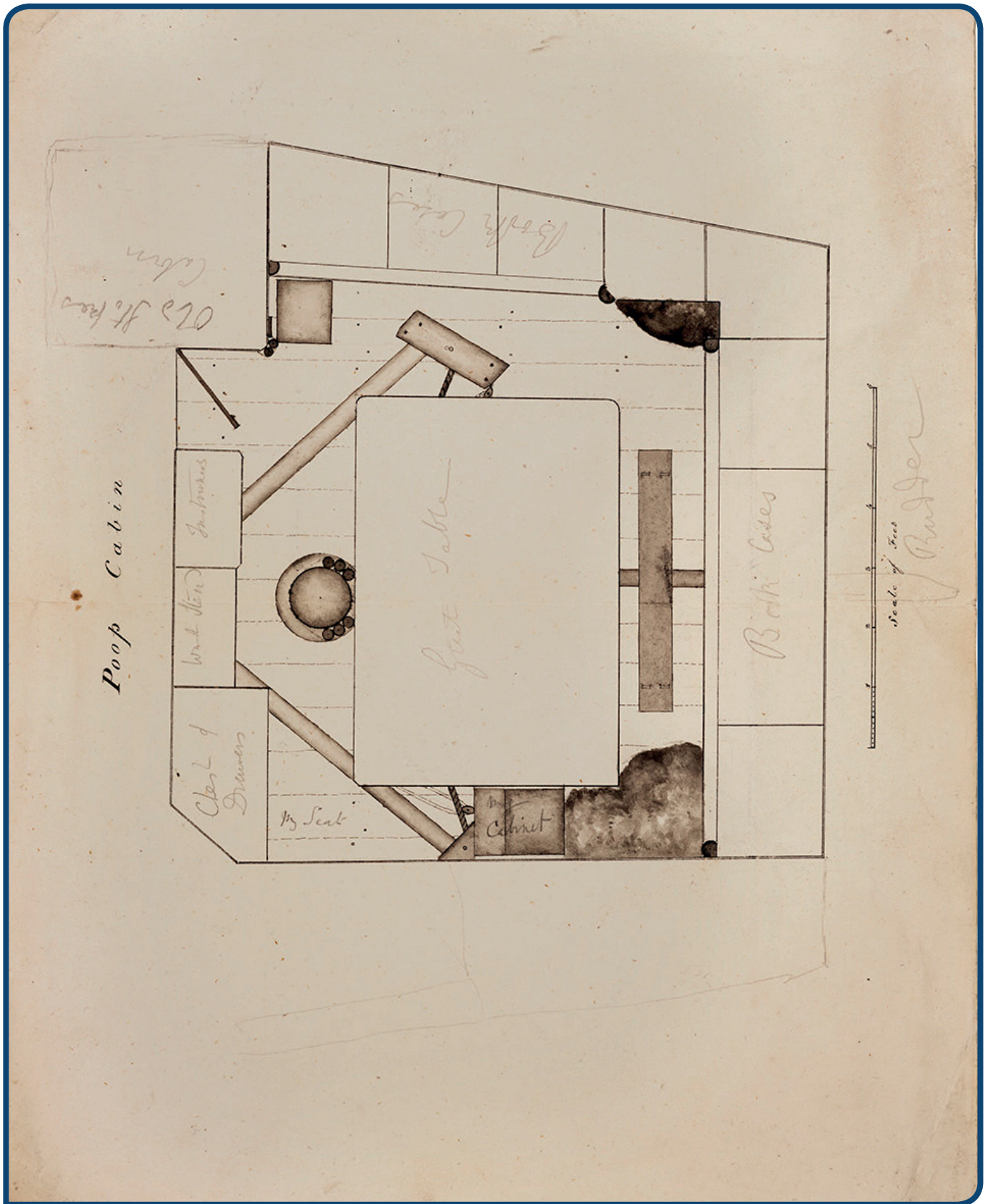
Captain Fitzroy pays for most of the changes himself.

22 chronometers are installed in Captain's quarters.

A **chronometer** is a very accurate clock used on board ship for navigational purposes. The admiralty only agreed to supply 5 chronometers so Fitzroy provided the other 17 at a cost of £300.

Upper deck is raised 8 inches to increase comfort and buoyancy.

# PG King's plan of Darwin's cabin



Reference: CUL DAR 44



# Model of HMS Beagle



Image courtesy of Simon Keynes

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# The Beagle Voyage

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## Who's who?

### Charles Darwin

Charles Darwin (1809-1882) was a naturalist who established natural selection as the mechanism for the process of evolution. He joined the voyage of HMS *Beagle* when he was 22, a journey he described as the 'most fortunate circumstance in my life'. He wrote to around 2000 correspondents all over the world as a means to inform his research. Most famously he published *On the Origin of Species* in 1859, but he researched and wrote extensively on natural history throughout his life.



### Susan Darwin

Susan Darwin (1803-66) was Darwin's sister. They wrote regularly to each other during the *Beagle* voyage. She conveyed much family news to him and referred to herself as 'Granny' in her letters as she was always giving him advice. She also corrected his grammar and spelling.

### Robert FitzRoy

Robert FitzRoy (1805-65) was Vice-Admiral to the Navy, a pioneering meteorologist and hydrographer. He was made the commander of HMS *Beagle* at the age of 23. He was appointed Governor of New Zealand in 1843. He is credited with inventing several barometers and devising sea charts to forecast the weather. Despite FitzRoy's explosive temper, he and Darwin were close friends during the voyage and he supported Darwin's work. FitzRoy subsequently distanced himself from Darwin's ideas and turned increasingly to religion.



Image of Robert FitzRoy: ©National Portrait Gallery, London. NPG x128426. CC BY-NC-ND 3.0



# The Beagle Voyage: Who's who?

## Robert Waring Darwin

Robert Waring Darwin (1766-1848) was Charles Darwin's father and a physician. He had a large practice in Shrewsbury and resided at The Mount. He was the son of Dr Erasmus Darwin who took a great interest in botany. Robert Waring Darwin married Susannah, daughter of Josiah Wedgwood I.

Image of Robert Waring Darwin ©Shrewsbury Museums Service (SHYMS: FA/1991/033/2)



## William Darwin Fox

William Darwin Fox (1805–80) was a clergyman and Charles Darwin's second cousin. He was a good friend of Darwin's at Cambridge and shared his enthusiasm for studying insects. He maintained an active interest in natural history throughout his life and provided Darwin with much information. He was the Rector of Delamere, Cheshire (1838–73) but spent the last years of his life at Sandown, Isle of Wight.



## John Stevens Henslow

John Stevens Henslow (1796–1861) was a clergyman, botanist and mineralogist. He was Charles Darwin's teacher and friend. He was Professor of Mineralogy at Cambridge University from 1822 to 1827 and Professor of Botany from 1825 to 1861. He also extended and remodelled the Cambridge Botanic Garden as well as being firstly curate of Little St Mary's Church in Cambridge, then vicar of Cholsey-cum-Moulsford, Berkshire, and finally rector of Hitcham, Suffolk. Henslow recommended Darwin as an ideal candidate for the *Beagle* voyage.

Image of John Stevens Henslow courtesy of the National Library of Medicine

