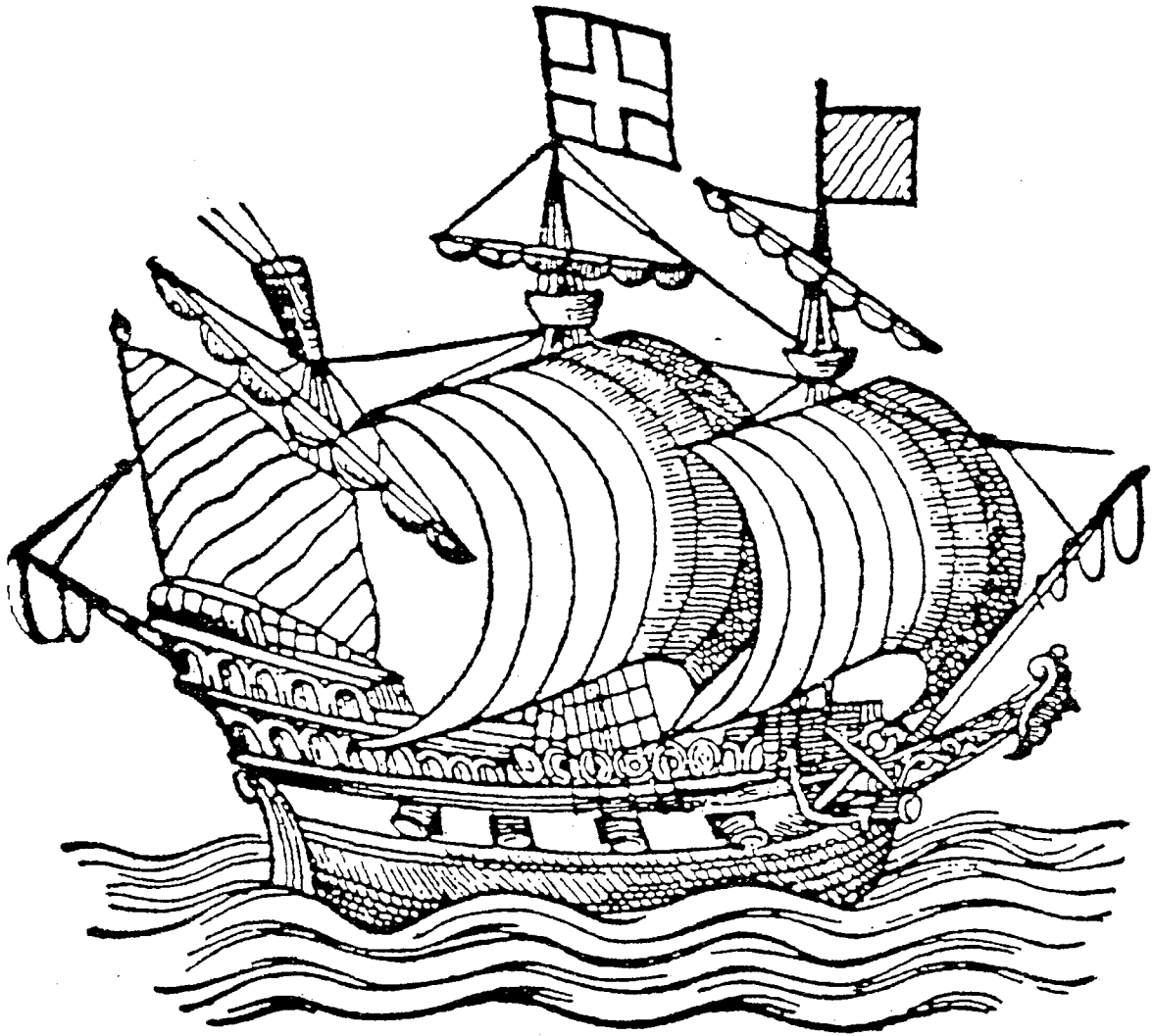


VOYAGE TO VIRGINIA



JAMESTOWN YORKTOWN FOUNDATION

VOYAGE TO VIRGINIA

Introduction

The Jamestown-Yorktown Foundation is an agency of the Commonwealth of Virginia that operates Jamestown Settlement and Yorktown Victory Center. Through these two museums the Foundation accomplishes its educational mission to commemorate the first permanent English settlement in the New World and the important role Virginia played in the formation of the United States of America.

This booklet is designed to provide teachers with information and activities that will help students participating in the Foundation's educational program, "**Voyage to Virginia**," gain the most from their program. The program is designed to provide students with an overview of 17th-century navigation technology and life at sea for crew and passengers. At the end of the program, students should be able to do the following:

1. Describe the kinds of ships that carried people across the seas in the 17th century.
2. Explain why the English followed the route they took to Jamestown in 1607.
3. Describe daily life of passengers and crew during ocean voyages in the 17th century.
4. Explain the jobs of at least two crew members and identify tools that each used to do his job.

The activities offer additional opportunities for classroom activities that will supplement and reinforce the learning of the program.

1. **How do we know about the Susan Constant?** This sheet provides some background history of the Susan with a suggested art activity. The "brightwork" designs used on the ship are brightly colored geometric designs. Students may prefer to use the back of the paper to create the designs as well as to color the ship sketch enclosed.
2. **Ships' Boys** Boys in your class may well have served as ships' boys 500 years ago. Shipboard time and compass points are explained. You may want to have your class operate by ships' watches for a day. You may also wish to create a compass rose on your school parking lot or playground. A pole placed in the center can be used as the focus for drawing a circle with string and chalk. (Tie one end of the string around the chalk; with the other end of the string, make a loop to fit over the pole.) Once your circle is formed, use a compass to identify the points of the compass. As a further learning activity, the shadow of the pole can be used to indicate time; students could do some experimentation to figure out what time it is by their compass rose.

3. **17th-Century Sailors' Instruments** This activity page will allow students to review some of the instruments they encountered during their visit to the ships.

Answers: The **CHIPLOG** measures **SPEED**.
The **COMPASS ROSE** measures **DIRECTION**.
The **SAND GLASS** measures **TIME**.
The **TRAVERSE BOARD** calculates **DISTANCE TRAVELED**.

4. **17th-Century Sail** Students can write down their record of the visit to the Susan. Math skills are tested with "Figure This."

Answers:

1. 105 passengers
2. 1 man died
3. 17 crew on the Susan

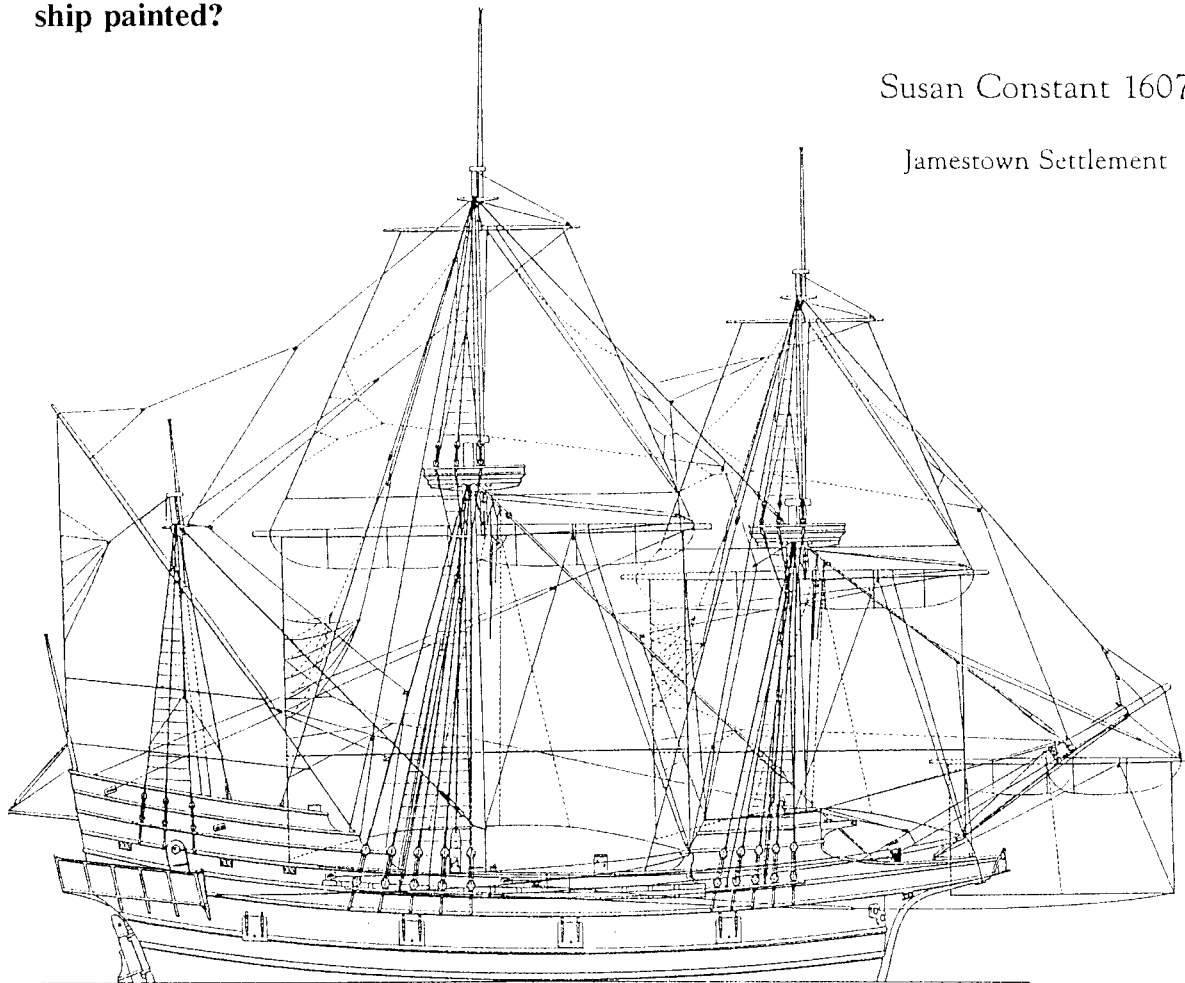
COVER: The sailing ship on the cover appeared on the frontispiece of a book published in London in 1609 entitled, Nova Britannia. Offering Most Excellent Fruites by Planting in Virginia. As a 17th-century print, contemporary to the Susan Constant, it offers opportunities for comparisons. Prints such as this helped to design and build the current reproductions exhibited at Jamestown Settlement.

HOW DO WE KNOW ABOUT THE SUSAN CONSTANT?

Even though the original Susan Constant has been lost and we have no surviving plans, models, or pictures of the ship, we have been able to learn about her and similar crafts of the early 17th century. In 1607, when the Susan was being outfitted to sail to Virginia, she broke her mooring lines and collided with another ship; the other owners went to court to sue for damages. Records of the court case told when and where the Susan Constant was built and that she was a 120 ton ship. Another important source of information has been underwater archaeology on three ships -- the Mary Rose, sank on her maiden voyage during the reign of Henry VIII; the Swedish ship Vasa, dating from 1628; and the Sea Venture, which while serving as the flag-ship for the "third supply" to the Jamestown colonists, wrecked on the shoals of Bermuda during a hurricane. Information has also been gained from surviving 17th-century models and the technology of shipbuilders. The Susan is as accurate a re-creation as we could make using the available information.

The "brightwork" is based on evidence gained from models and paintings that show brightly colored, geometric designs on the hulls of the ships. All of the designs are documented to the time period although we do not know the designs that were painted on the Susan Constant.

If you were the owner of a 17th-century cargo ship, how would you have your ship painted?



SHIPS' BOYS

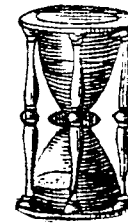
Did you ever wonder what it would be like to go to sea on a sailing ship for months at a time? Well, if you lived five hundred years ago, you could find out for yourself! Ships' boys were between the ages of ten and fourteen. They signed on as the youngest crew members aboard ships like those that Christopher Columbus and Christopher Newport sailed to the New World.

Ships' boys were taken on board not only to work, but to learn the skills needed to become a mariner, boatswain (pronounced bo-sun), pilot or other crew member. As a ship's boy, you might work for one of these men to learn their jobs, much like an apprentice would learn a trade or craft on land. Your duties on board the ship were important to help you learn these jobs, and the boatswain made sure you learned your duties well!

One of your duties would be to keep track of time on board the ship. This sounds simple, but can be kind of hard. The ship's crew was divided into two groups called "watches": the starboard watch and the larboard watch. The men on one watch would run the ship while the men on the other watch rested. Every four hours the two watches changed, and the men who had been working had a chance to rest.

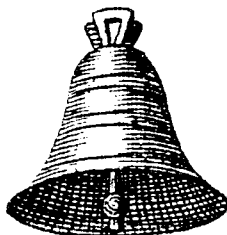
The Ship's Watches

First Watch	8:00 p.m. - Midnight
Second Watch	Midnight - 4:00 a.m.
Day or Morning Watch	4:00 a.m. - 8:00 a.m.
Forenoon Watch	8:00 a.m. - Noon
Afternoon Watch	Noon - 4:00 p.m.
{ Look Out Watch	4:00 p.m. - 6:00 p.m.
{ Last Dog Watch	6:00 p.m. - 8:00 p.m.



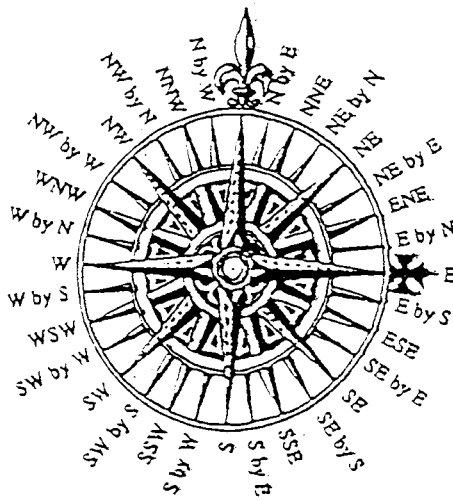
The ship's boys had to ensure that time was kept correctly, and that the watches only worked for four hours at a time. This was done by using a thirty minute sand glass. Ships' boys turned the sand glass every half hour, and then rang the ship's bell one time for every thirty minutes of the watch, to let the sailors know the correct time. For example, if your watch started at twelve noon, you would ring the bell five times at 2:30, seven times at 3:30, and so on. Every watch ended with eight bells, hence the expression "eight bells." So you can see that keeping track of time was a big responsibility, and you wouldn't want to make a mistake, or the boatswain might punish you!

Striking of the Watch-Bell: The First Watch



8:30 p.m.		Ding
9:00 p.m.		Ding-Ding
9:30 p.m.		Ding-Ding Ding
10:00 p.m.		Ding-Ding Ding-Ding
10:30 p.m.		Ding-Ding Ding-Ding Ding
11:00 p.m.		Ding-Ding Ding-Ding Ding-Ding
11:30 p.m.		Ding-Ding Ding-Ding Ding-Ding Ding
12:00 mid.		Ding-Ding Ding-Ding Ding-Ding Ding-Ding

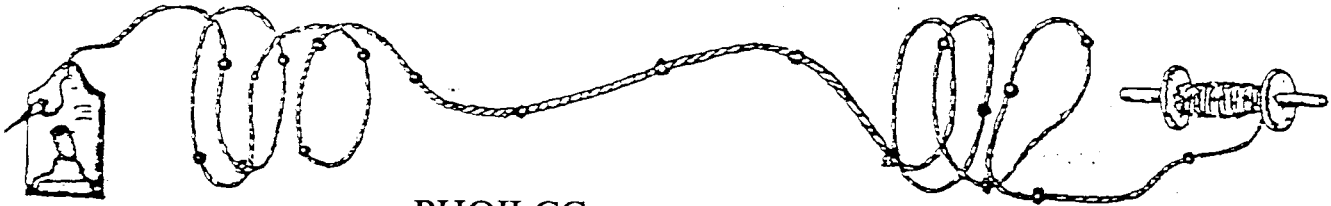
The ship's pilot was responsible for making sure the ship was steered in the right direction to get to the right place at the end of the voyage. Pilots needed to know how to use a compass in order to tell which direction the ship was headed, and you guessed it, learning to use the compass was another of the ship's boys' duties! We all know that there are four main directions on the compass: North, East, South and West. Did you know that the sailor's compass rose had thirty-two directions or points? For example, in between North and East is North by East, North Northeast, Northeast by North, and so on. Ships' boys had to learn to "say" all thirty-two points of the compass so that they could learn to steer the ship, or maybe be a pilot themselves someday!



Can you count the points on the compass? The ship's boy had to memorize all 32 points!

Are you ready to become a ship's boy? To be sure you would also have had many other duties, and probably would have helped with many different jobs on board the ship. You might run errands or messages for the ship's master, or captain, and his mates. You might also have helped the mariners with their duties, such as trimming the sails, pumping the bilge, mopping the deck and repairing sails and rigging. There would be no shortage of hard work, salt water and fresh air. If you learned your duties well you might have a good career ahead as a pilot or mate. If you did not learn your duties well, you would surely feel the pain of the boatswain's punishment. So step lively and come aboard!

Below are four instruments used by 17th-century sailors. One measures **direction**; one measures **speed**; one measures **time**; and one can be used to calculate the **distance** traveled. Unscramble the name of the instrument, and tell how the instrument is used.

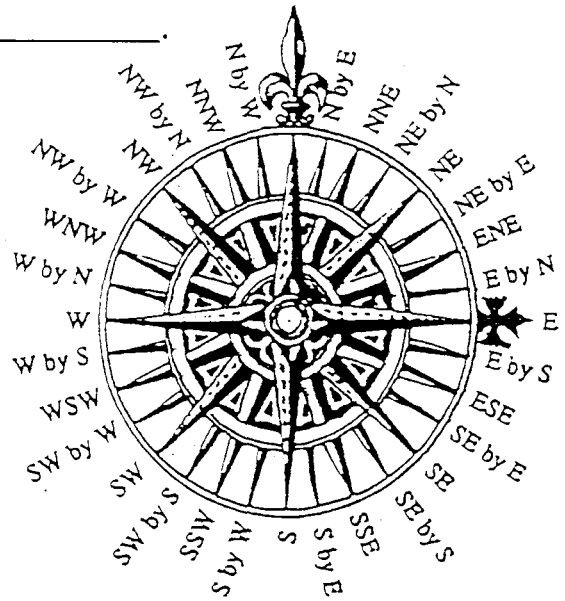


PHOILCG _____

Measures _____.

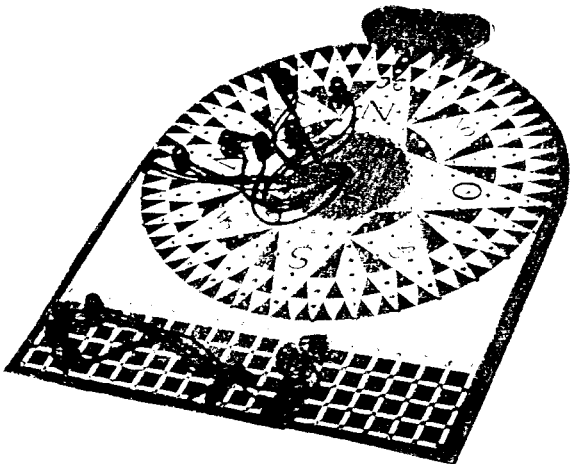
PSSOOMCARSE _____

Tells _____.



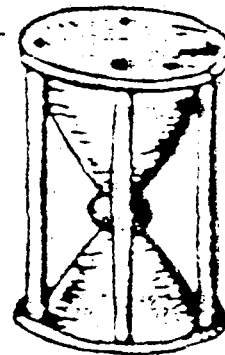
DASLAGSSN _____

Measures _____.

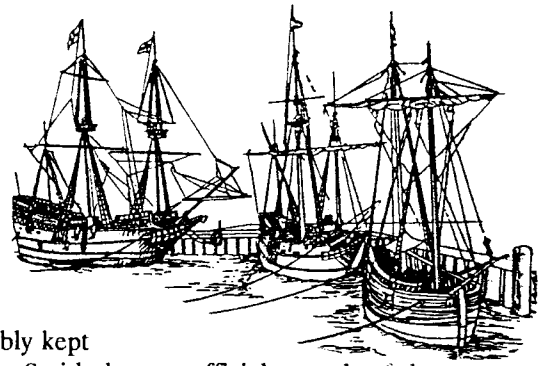


VABTORERSRDEA _____

To calculate _____.



17th-Century Sail



On board ship, a daily log is kept. The captain records how far the ship travels and important events that occur. We do not have a ship's log from the 1607 voyage; somebody probably kept a log, but it has been lost. Two men, George Percy and John Smith, kept unofficial records of the voyage which are very useful to historians today. From these unofficial records, we learn at what islands the ships stopped to take on fresh water, when they encountered storms or no wind at all, and of the death of Edward Brooks on the island of Mona -- possibly from heat stroke. His is the only recorded death on the 1607 voyage. So that you don't forget about your visit to the Susan Constant, write a log of your activities on board.

MY DAILY LOG

DATE _____

SIGNED BY MY HAND _____

FIGURE THIS

1. One hundred forty-four men and boys sailed out of London. Thirty-nine were crew members. How many were passengers? _____
2. One hundred four men and boys stayed in Jamestown and no crew members were lost. How many men and boys died on the crossing? _____
3. Nine crew members were on the Discovery. Thirteen crew members were on the Godspeed. How many crew members were on the Susan Constant? _____

For Further Information
Contact:
Outreach Education and Special Services
Jamestown-Yorktown Foundation
Post Office Box 1607
Williamsburg, Virginia 23187-1607
(757) 253-4939