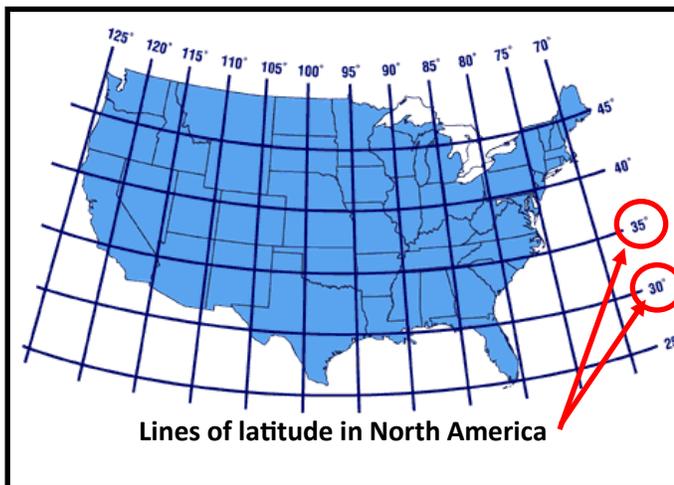


# HENRICUS AT HOME

## DIY QUADRANT

A quadrant was one of the navigational instruments available to the English when they settled in Virginia in the early 17th century. This simple tool allowed sailors to determine their latitude. Latitude is a fancy word that means how far north or south you are from the equator. On maps, lines of latitude run from east to west, and are measured in units called degrees. Look at the horizontal lines of latitude on the map below.



When the English traveled to Virginia over 400 years ago, they couldn't just point their ships toward North America and hope they would end up in the right spot.

- ◆ First, they needed to know the latitude of where they wanted to go: the Chesapeake Bay.
- ◆ They also needed a way to measure their latitude while sailing to be sure they were on the right track.

To use a quadrant, sailors would aim the eyepiece at either the North Star (Polaris) or the sun. Attached to the quadrant was a weighted cord, or plum line. The cord would line up with a number on a degree scale written on the surface of the quadrant. That number represented the sailor's current latitude.

**WHAT IS YOUR CURRENT LATITUDE?**

**MAKE YOUR OWN QUADRANT TO FIND OUT!**

## MATERIALS

- ◆ Quadrant template
- ◆ Thin cardboard (like a cereal box)
- ◆ String or yarn
- ◆ A bead
- ◆ Scissors
- ◆ Glue
- ◆ Tape
- ◆ A drinking straw

## INSTRUCTIONS

**Step 1:** Print the quadrant template and carefully cut it out.

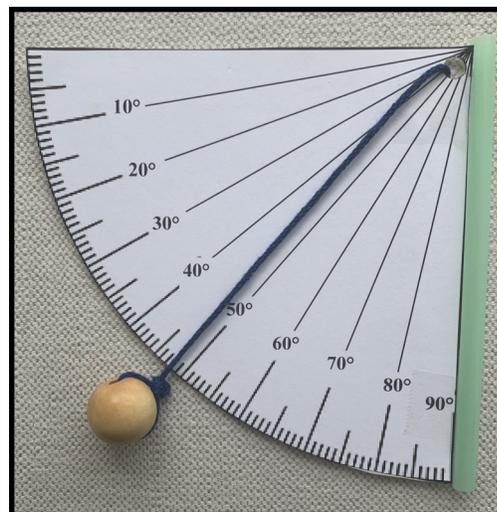
**Step 2:** Glue the quadrant template to a thin piece of cardboard. Cut away the excess cardboard from around the edges of the quadrant template.

**Step 3:** Using a hole punch or scissors, poke a small hole through the black dot in the corner of the quadrant.

**Step 4:** Insert one end of your string through the hole and tape it down on the back of the quadrant. This will hold the string in place.

**Step 5:** Tie a bead to the other end of the string.

**Step 6:** Tape a drinking straw along the straight edge of the quadrant that is closest to the number 90.



## TO USE YOUR QUADRANT

On a clear night, locate the North Star (Google: how to find the North Star?). DO NOT LOOK AT THE SUN WHEN USING YOUR QUADRANT! Hold the quadrant so that the straw is on top and the number 90 is closest to your body. Close one eye and look up at the North Star through the straw. Have a family member write down the number that the string is hanging over. That number is your latitude! To check the accuracy of your quadrant, use the internet to find the exact latitude of your address.

# QUADRANT TEMPLATE

