

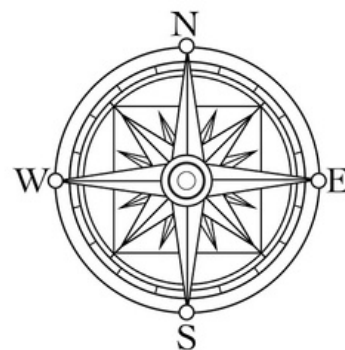


# JUNIOR SAILOR

## MAKE A COMPASS

A **compass** is a tool that is labeled with the directions of north, south, east, and west, and has a magnetic needle that always points north.

Since the needle always points to the north, you can use a compass to determine the other directions in relation to which way north is. South is labeled as the opposite direction of north. East is labeled to the right of north, and west to the left.

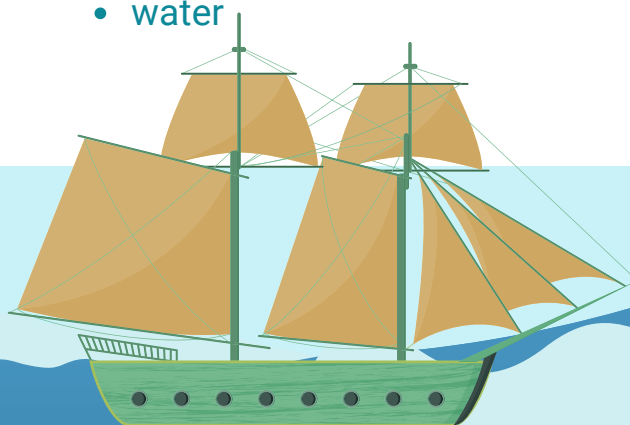


The compass was one of the most valuable tools on a ship before computers and satellite navigation!

**Below you'll find instructions on how to make your very own compass!**

### MATERIALS:

- sewing needle
- magnet (use the strongest one you have!)
- styrofoam/paper plate/or other recyclable material
- pen/pencil/or crayon
- cup
- pair of scissors
- tape
- water



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### STEP 1:

Go to your recycling bin and find a piece of styrofoam, plastic, cork, or cardboard that is light enough to float, and soft enough to cut and pierce with a sewing needle.

### STEP 2:

If your piece of recycling is not already a small circle, trace the bottom of a cup onto the recyclable you found, and then cut that circle out.

### STEP 3:

Get your magnet and sewing needle. Rub the needle with the magnet with short strokes, dull end to sharp end. Make sure you are running the magnet in the same direction down the needle with every stroke. Stroke the needle with the magnet 20 times. Be very careful to not poke yourself!

### STEP 4:

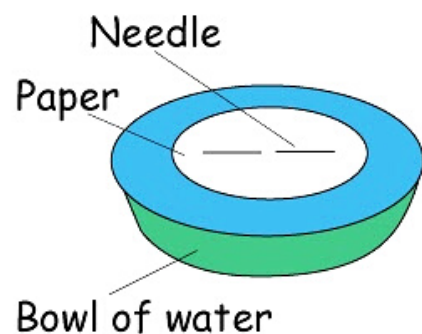
Pierce your circle of recyclable material with your needle straight across the length of your circle. Get an adult's help for this part! If your circle is hard to pierce use a piece of tape to hold the needle in place on the face of the circle.

### STEP 5:

Use your pen, pencil, or crayon to mark an "N" for North near the sharp end of the needle.

### STEP 6:

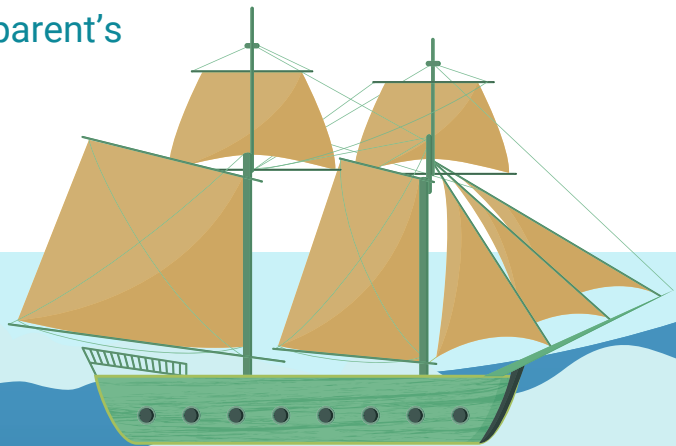
Fill a tub, sink, bucket, or bowl with water. Gently set your new compass in the water.



### What happens? Where is North?

Check your compass accuracy with the help of a compass or map app on your parent's or an adult's phone!

Courtesy of Puget Sound Naval Museum.



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