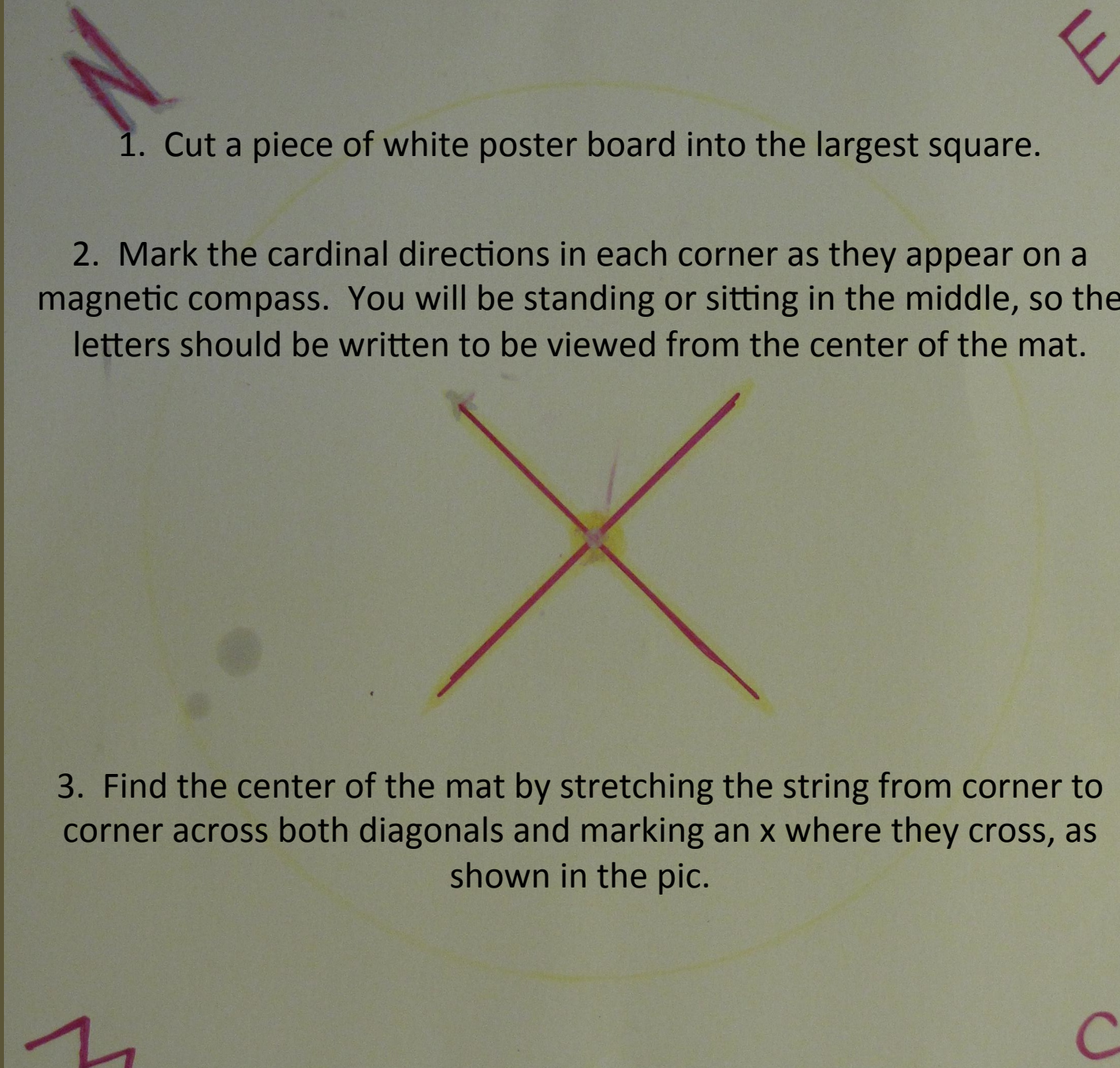


# Making a Compass Rose Stargazing Mat



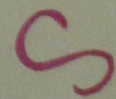
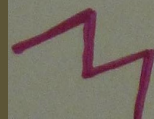
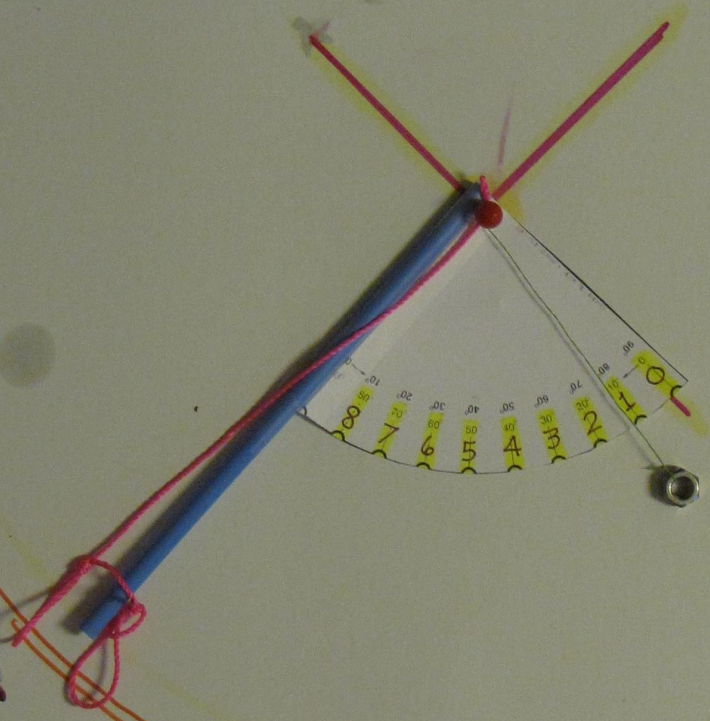
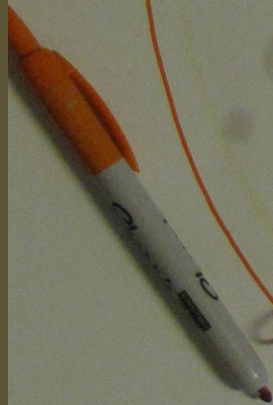


- 
1. Cut a piece of white poster board into the largest square.
  2. Mark the cardinal directions in each corner as they appear on a magnetic compass. You will be standing or sitting in the middle, so the letters should be written to be viewed from the center of the mat.

3. Find the center of the mat by stretching the string from corner to corner across both diagonals and marking an x where they cross, as shown in the pic.

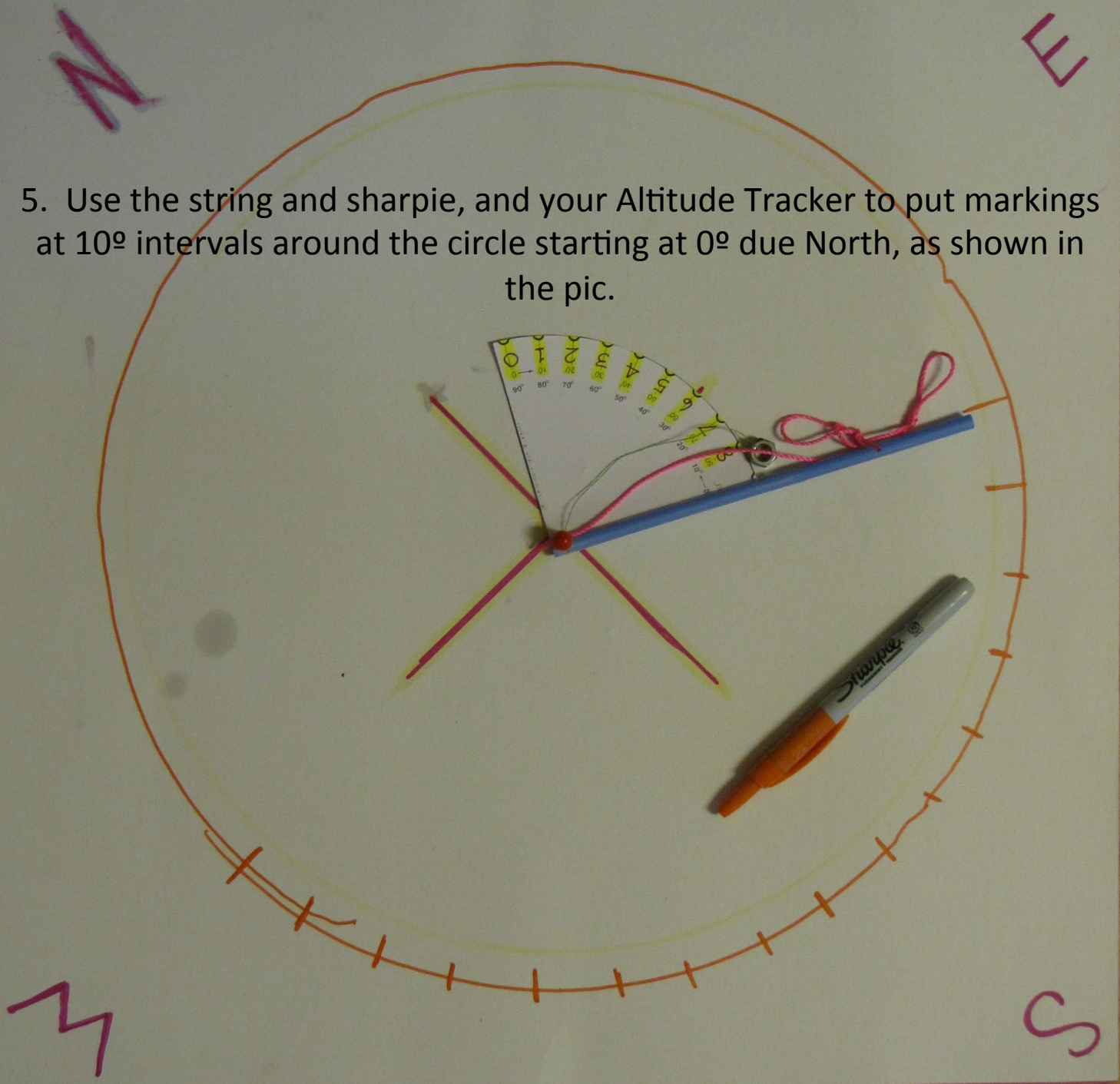


4. Use the string and a sharpie to draw the largest circle that can be made on the poster board. Notice how you will be using your Altitude Tracker to mark your Mat.



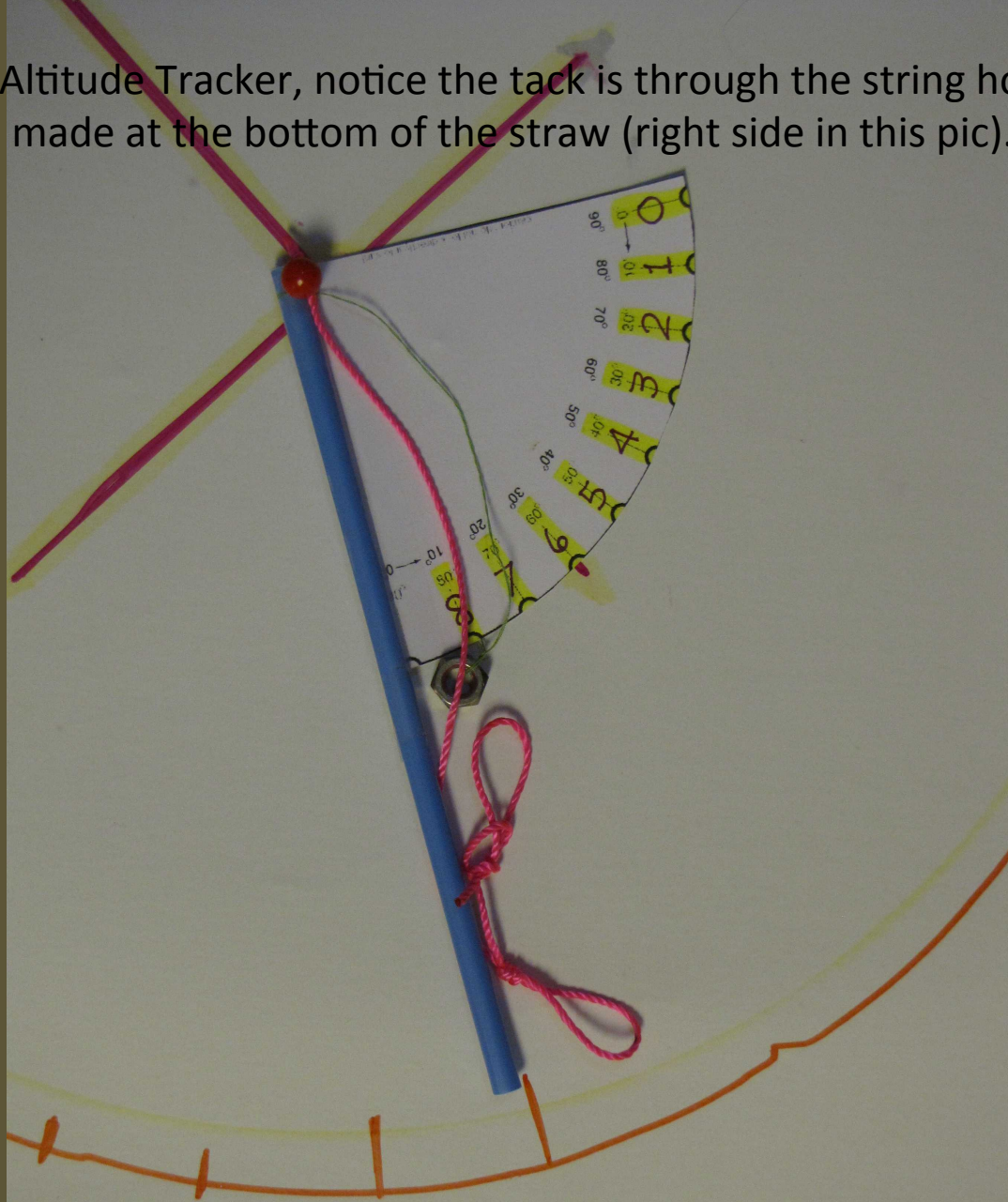


5. Use the string and sharpie, and your Altitude Tracker to put markings at  $10^\circ$  intervals around the circle starting at  $0^\circ$  due North, as shown in the pic.



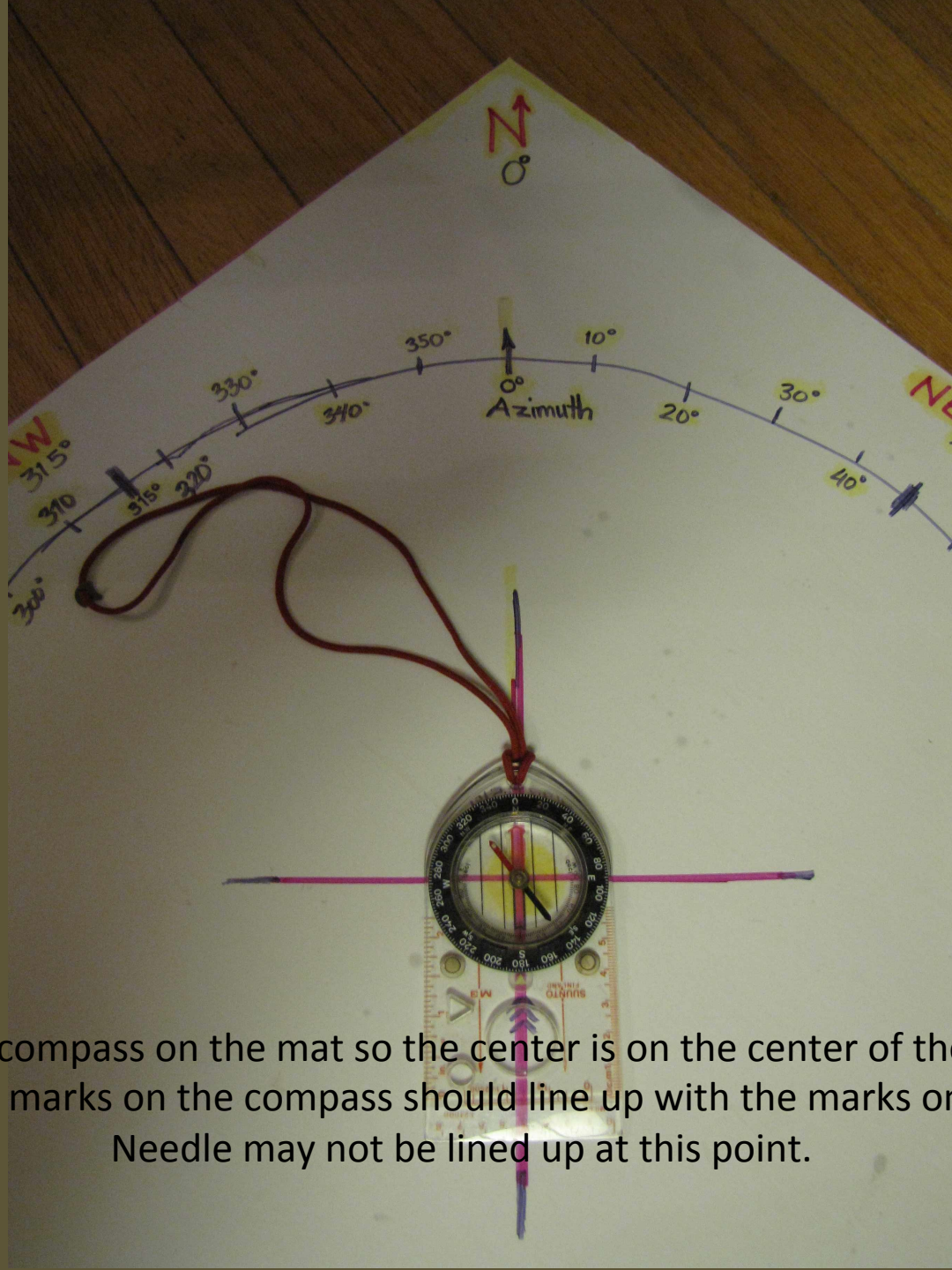


In this detail of the Altitude Tracker, notice the tack is through the string hole, so the marks are made at the bottom of the straw (right side in this pic).



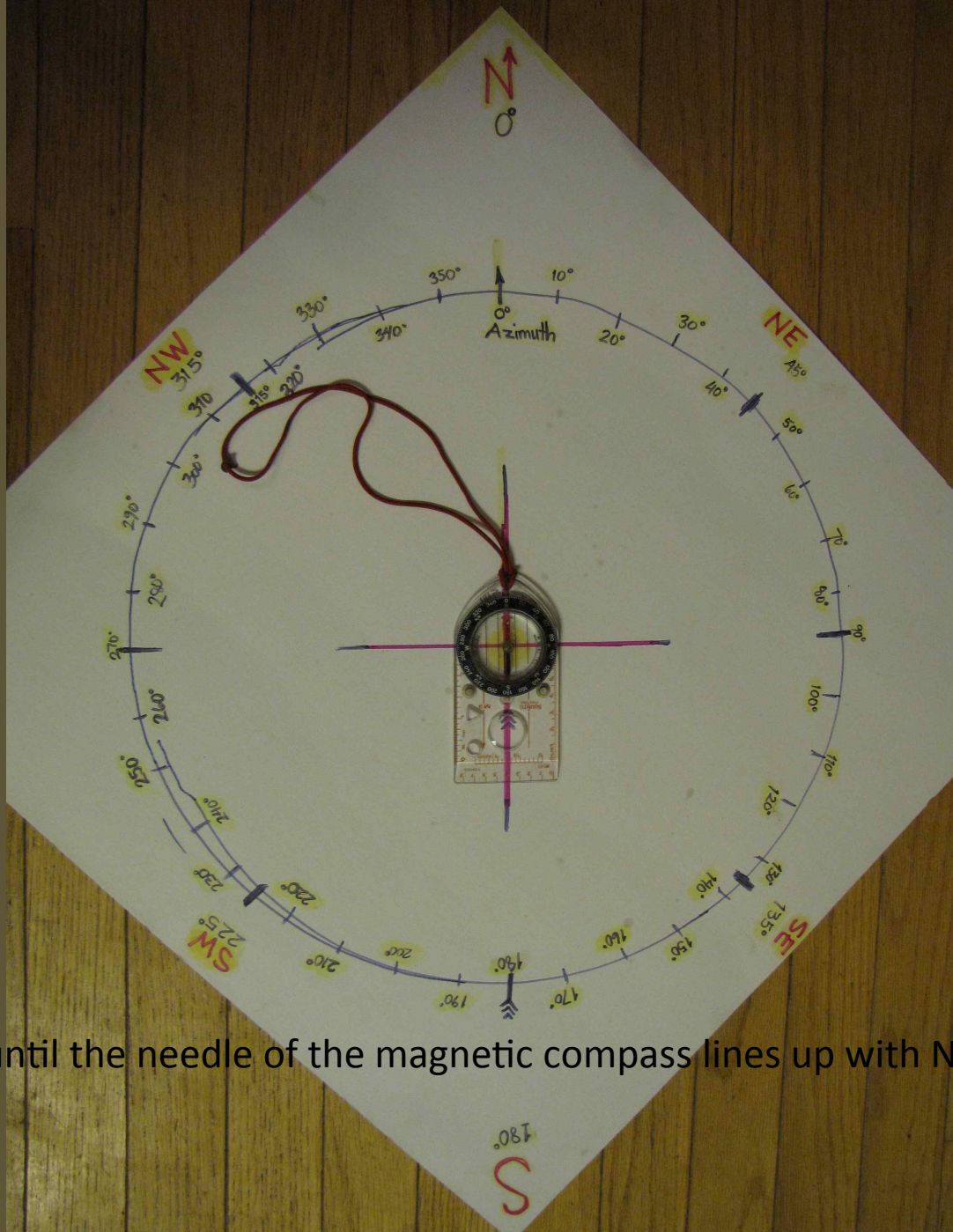
The Altitude Tracker is rotated around the tack in the center of the mat, using the markings you made to find the center of the mat





6. Lay the magnetic compass on the mat so the center is on the center of the map and it points to the North. The marks on the compass should line up with the marks on your rose. The Needle may not be lined up at this point.





7. Rotate the mat until the needle of the magnetic compass lines up with North on your Mat.