

## ACTIVITY!

# MAKE YOUR OWN QUADRANT

A quadrant is a simple instrument that sailors used to measure the height above the horizon of the sun and stars. Held vertically and aligned with a sun or star, a weighted string fell across a scale marked with degrees. This indicated the object's angle above the horizon.

## SUPPLIES

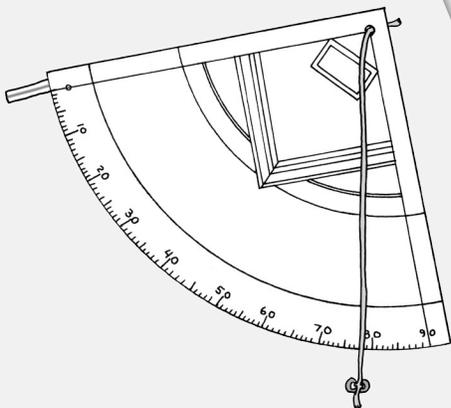
- ✂ quadrant template (*see next page*)
- ✂ scissors
- ✂ glue
- ✂ lightweight cardboard, cereal box, or a file folder
- ✂ straw
- ✂ tape
- ✂ string
- ✂ large bead or paperclip

**1** Make a copy of the quadrant template. Cut out the copied quadrant and glue it to a piece of cardboard or file folder. Cut the quadrant and its backing out with scissors.

**2** Glue or tape your straw to the back of the quadrant so that it is parallel with the straight edge of the quadrant that starts at "0."

**3** Make a small hole through the corner of the quadrant. Tie a knot in the string or tape it to secure it to the quadrant. Tie a bead or paperclip to the other end of the string. This will act as the weight.

**4** To use your quadrant, wait until night and pick a bright star in the sky. With the arc of the quadrant facing you, look along the straight edge through the straw. Line up the star through the straw so that it looks as if it is touching the end of the quadrant. Let the string hang down and then hold it in place. Read the number on the arc. This is the height of the star in degrees. Remember that stars will be in different places in the sky depending on the time of night and how far north or south you are.



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TRACE-IT  
TEMPLATE  
QUADRANT