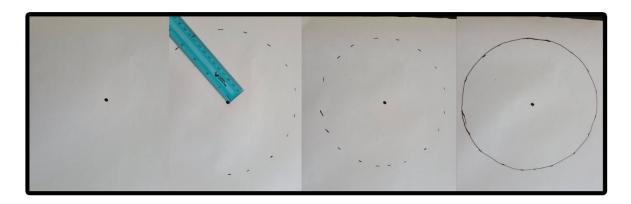
Drawing and Constructing an Engineer/Baseball Cap

Instructions: You will construct 3 pieces. The crown (top of hat), band (center), and bill. Follow the instructions to make each piece. (**Note:** If you have access to a large poster board, pieces could be made into templates first).



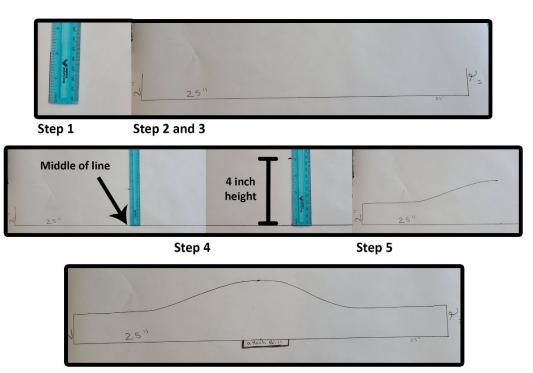
1) Drawing the Crown

- Draw a circle with a 4-inch radius.
 - Step 1: Place a dot on your paper.
 - Step 2: Using your ruler, measure a 4-inch distance from the dot and make a mark. Continue making marks at this distance until you have made a circle shape.
 - Step 3: Connect the dots/marks with a line.



2) Drawing the Band

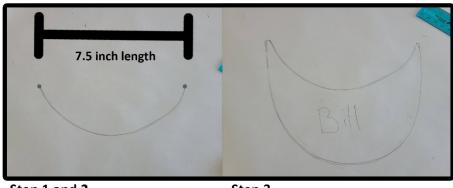
- The band will be approximately 25-inches in length and will be narrow at both ends and higher in the center.
 - Step 1: Draw a vertical line with a 2-inch width at the far-right of your paper.
 - Step 2: Draw a straight horizontal line measuring 25-inches in length from the bottom of the 2-inch line drawn in step 1.
 - Step 3: Draw a vertical line with a 2-inch width on the left-side of your paper.
 - Step 4: Find the middle of the bottom line drawn (12.5"). From this mark, measure 4-inches and place a dot.
 - Step 5: Draw a curved line as pictured below.
 - Step 6: Create a tab at the bottom of the band near the middle. This will be used later to help attach the bill.
 - Note: If you want your band to be straight and thicker, you can easily adjust measurements to get your desired look.



Step 6

Drawing the Bill

- Draw a bill shaped end that attaches to band.
 - Step 1: Take your ruler and measure approximately 7.5-inches in length. Place two dots.
 - Step 2: Create a half moon shape connecting the dots in Step 1 (see picture below).
 - o **Step 3:** Draw a bill-shape that you would like for your hat design.



Step 1 and 2

Step 3

Constructing Your Hat

Once all of your pieces are drawn and cut out, it is time to put them together. You will need the following:

- Glue Gun and Glue Sticks
- 3 pieces cut out (crown, band, bill)



Step 1: Take the band piece and wrap around your head. Make sure hat fits loosely on your head before securing with hot glue. Cut excess paper after gluing.



Step 2: At the top of the crown make small notches (approximately ¼-inch) around the full circumference of the crown. Bend the notches inward and glue on the crown. **Note:** Crown can be trimmed for a perfect fit once glued on to the band.



Step 3: Bend the bottom tab on crown. Attach bill.

