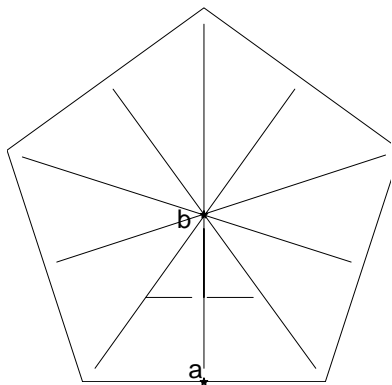


Reyes' Star

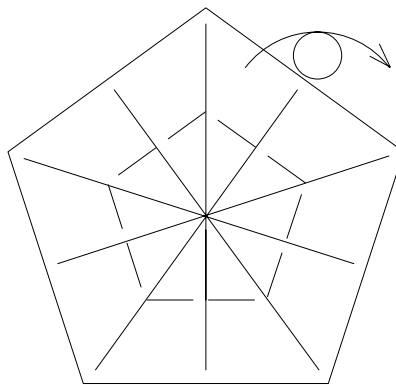
designed by Bill Reyes
variation by Jim Clark
diagrams by Jim Clark

I've added a rounded, flower-like shape to Bill's design that contrasts the angular features.

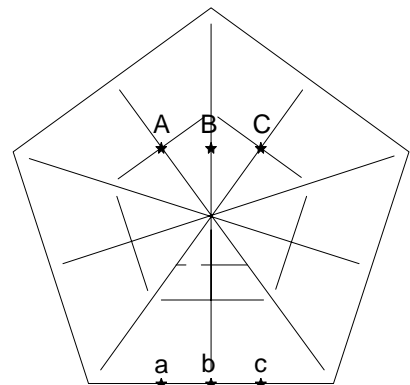
Begin with a regular pentagon, colored side up. A sturdy foil paper is recommended.



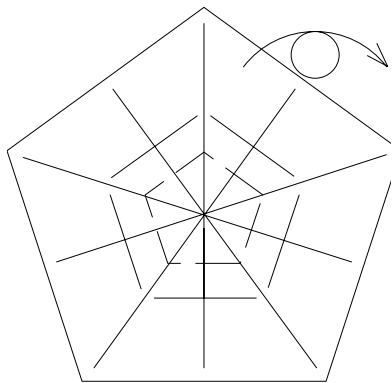
1. Valley-crease (fold and unfold) as shown by placing point **a** on point **b**.



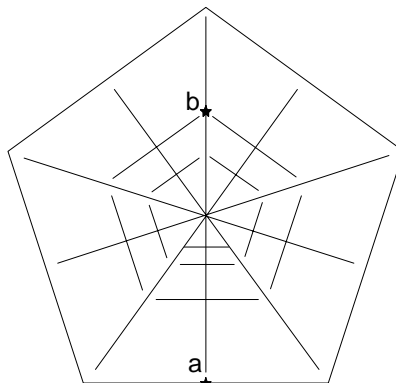
2. Repeat step 1 four more times around the pentagon, and turn over.



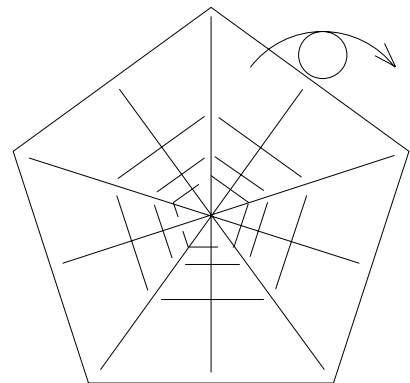
3. Valley-crease as shown by placing edge **abc** across points **A** and **B**, checking that midpoint **b** lands on crease **B**.



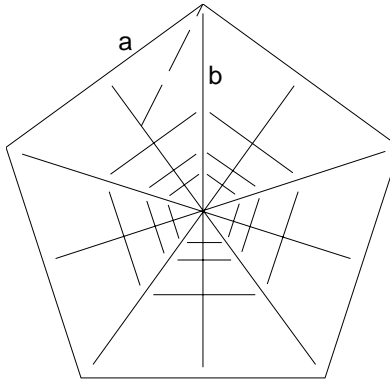
4. Repeat step 3 four more times around the pentagon, and turn over.



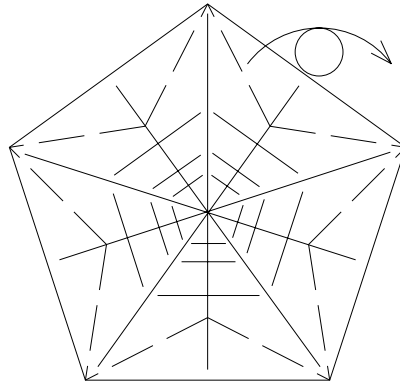
5. (Color up) Valley-crease as shown by placing point **a** on point **b**.



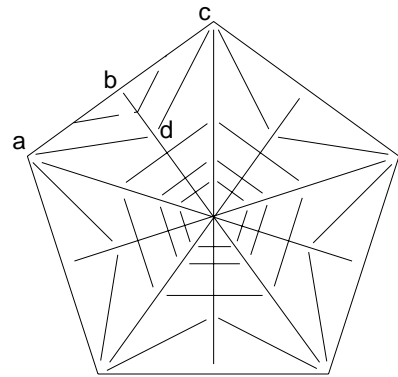
6. Repeat step 5 four more times around the pentagon, and turn over.



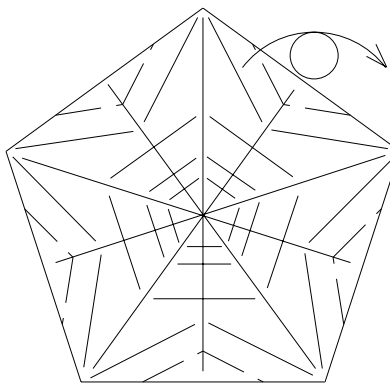
7. (Color down) Valley-crease as shown by placing edge **a** on crease **b**.



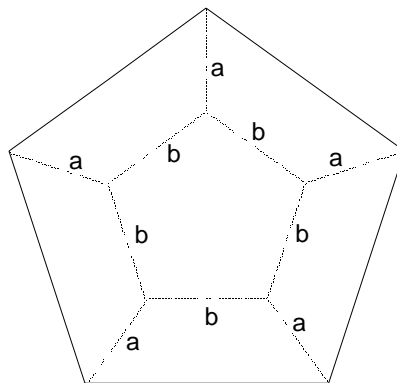
8. Repeat step 7 nine more times around the pentagon, and turn over.



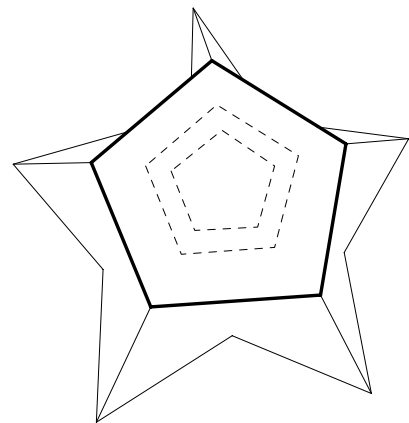
9. Make two valley-creases parallel to **ad** and **dc**. The ends of the new creases are at the mid-points of **ab**, **bd**, and **bc**.



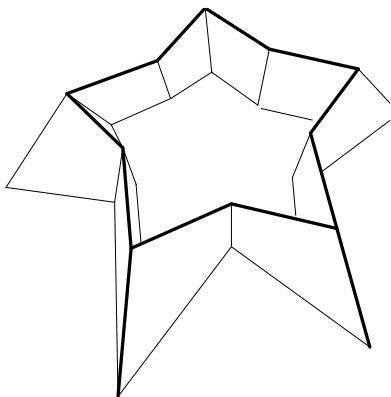
10. (Color up) Repeat step 9 four more times around the pentagon, and turn over.



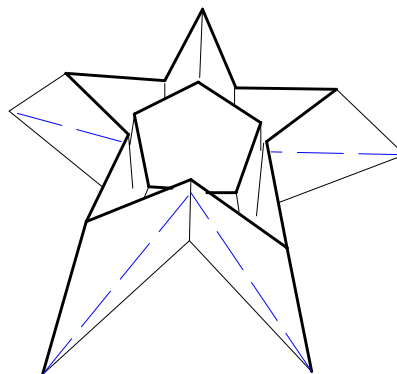
11. Begin collapsing the model from the outside in. First mountain-fold creases '**a**' a little, then creases '**b**'.



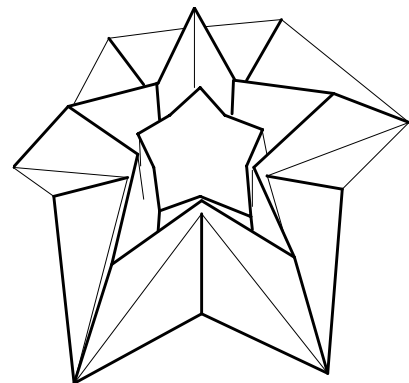
12. Like this (3D view of back side). Now push the sides in a little, and the top down (sink).



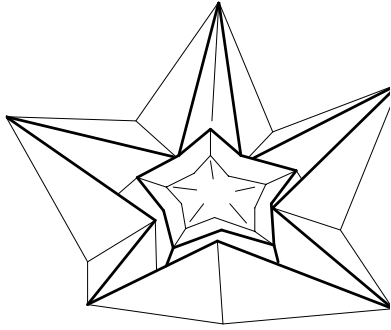
13. This should valley-fold the next inner pentagon like this. Now push the sides in, and the bottom up (a second sink).



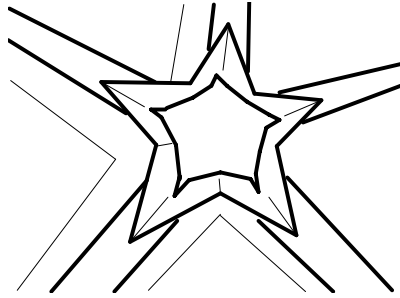
14. Like this. Do five reverse-folds on existing creases as shown here and next.



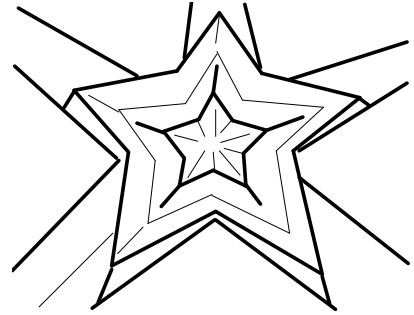
15. Like this. Turn over.



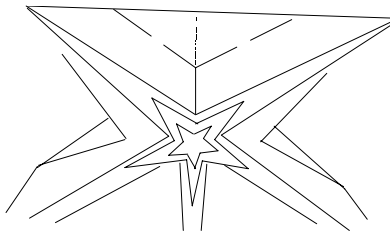
16. Like this on the front side. Push in a little more and make the center pop up.



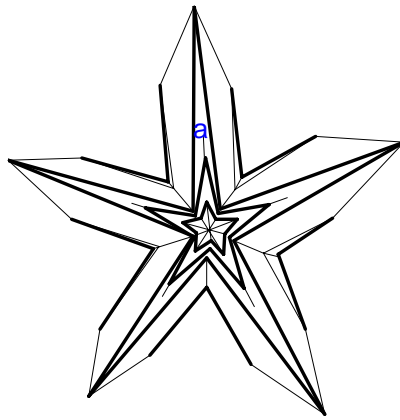
17. (Zoomed into center) When the center pops up, flatten it to the level of the surrounding star.



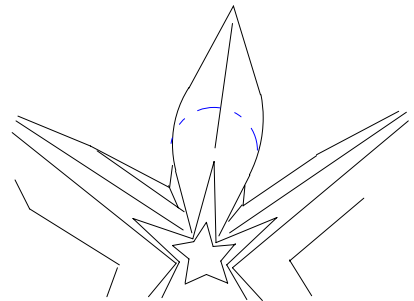
18. (Paper more relaxed) Then sink it down to form another star.



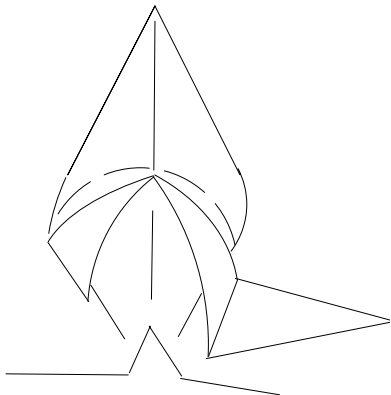
19. (Partial view) Make 5 reverse folds on existing creases as shown.



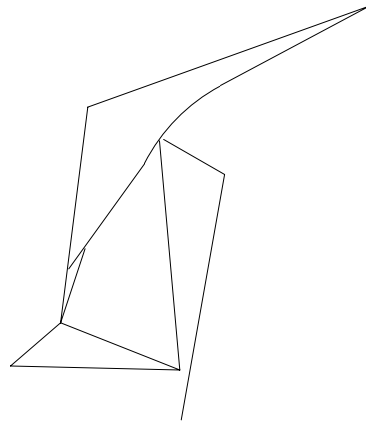
20. Spread open the gap marked 'a'. (See next view.)



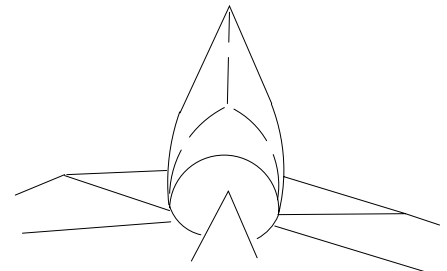
21a. (Partial view) Reverse-fold as shown, making a curved mountain fold. (See next view.)



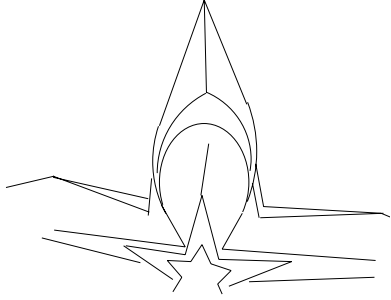
21b. (Back side) Here is where to locate the curved fold.



22. (Side view) Curved reverse fold done.

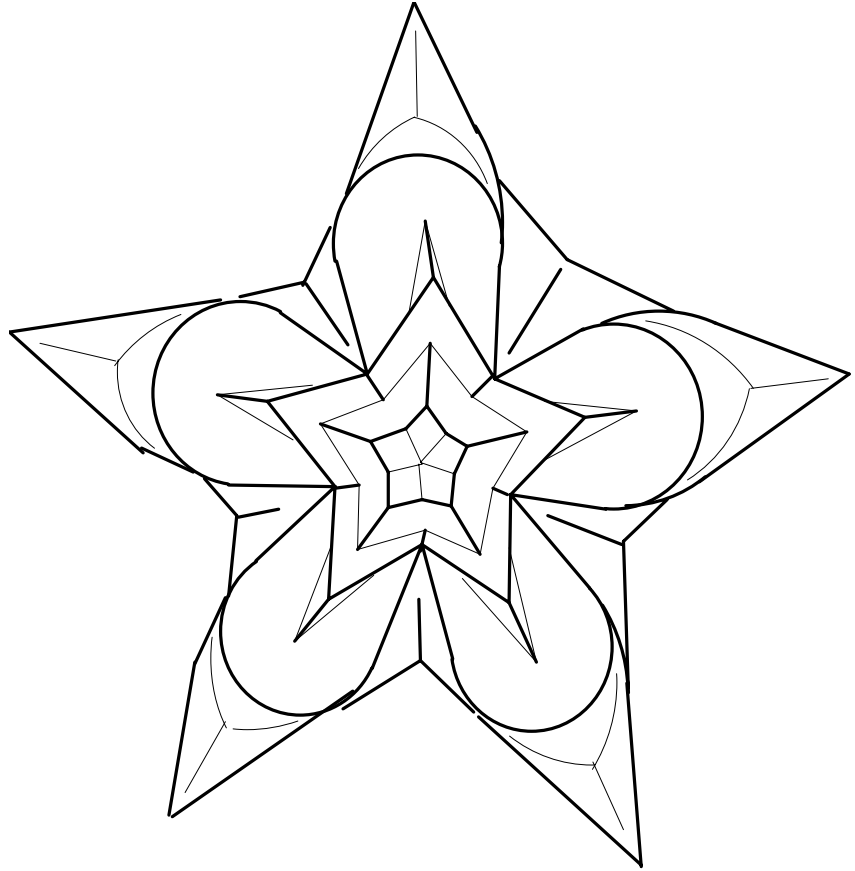


23. (Front view, tilted forward a little) Reverse-fold (valley) as shown, making a fold curved like a cathedral arch.



24. (Front view, completed)
Repeat steps 21-23 on the
other four arms of the star.

Check that there is a
smooth, cone-like shape
inside the curved area of
each arm of the star.



25. Completed star.