## Make a Vorticella "pencil topper"

## You will need:

- A copy of the following pattern page copied onto regular paper (card stock will be too heavy)
- Scissors
- White glue (glue sticks probably will not be sticky enough)
- A white chenille stem
- Clear tape
- A pencil (to be part of the craft)

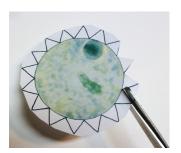
**STEP 1:** Copy the pattern onto regular white paper. (Card stock will be too heavy.) If you are using the color-it-yourself pattern (just the outlines), finish the vorticella's insides. Add a nucleus, a contractile vacuole, and many digestive vacuoles. You can add color if you wish.

**STEP 2:** Cut out the two Vorticella body parts.

TIP: An easy way to cut around all those triangles is to cut a larger circle first, cutting along the tips of the triangles. Then just make snips into the triangles.

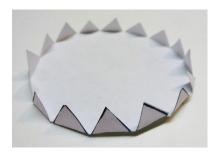
**STEP 3:** Put a small amount of white glue on the side tab, and press and hold in place for 10 to 15 seconds.

TIP: Don't use too much glue! A few tiny dots spread out over the area will be adequate. You know you are using too much glue if it seeps out when you press your seam together. White glue is very strong and using too much will give you a big soggy mess.





**STEP 4:** Fold all the triangles back. Put tiny dabs of glue on the outsides of each of the triangle flaps. Insert the top so that the mouth on the top approximately matches up with the gullet on the side. To press the tabs in place, insert your index and middle fingers into the cone from the bottom. Use your free hand to manipulate the top piece, pressing it down as needed. Press and hold the triangles until they stick in place.







TIP: White glue "grabs" very quickly and it usually only takes till the count of ten to have a tab stuck in place. If your glue is taking longer than this, consider trying a different bottle. If the glue feels slightly runny, it's bad glue. Glue can go bad if it freezes and thaws or if it sits too long. Make sure you don't use "school glue" as it won't grab quickly. When I started this project, I was using a bottle of Elmers Extra Strength white glue, which should have been excellent. However, it just was not holding. I switched to a different bottle of the same thing and the second bottle was fine. I'll never know what was wrong with that first bottle. Should have been fine, but wasn't. So if your glue is having issues, try a newer bottle of glue, or a different brand.



**STEP 5:** Glue two opposite bottom tabs. Then fold over a third and glue that in place. Let it dry for a few minutes. (While waiting for it to dry, you might want to start snipping the "fringe" at the top? See step 7.)





**STEP 6:** Poke a hole in the bottom (carefully use something sharp, like a nail), straight through those three glued tabs. (If they are still a little damp, you can blow a hair dryer on them for half a minute.) Stick the end of the chenille stem up through the hole. Bend the chenille stem to follow the contour of the inside of the cup, then tape it in place. Be sure to make this interior section of chenille stem long enough. You can even run it up the side of the cup. After the chenille is firmly taped to the inside, you can close up the last tab. It might be a little tricky, but you can stick something like a pencil point or scissosr tip into the little gap in the paper, and use it to press from the inside.







**STEP 7:** Snip the cilia fringe along the top. When finished snipping, fold them outward slightly. Then wrap the bottom of the chenille stem around the top of a pencil, and secure in place with clear tape. (NOTE: I found that the chenille stem holds the weight of the paper cup better when it is not coiled. If your vorticella gets "floppy," try uncoiling the chenille stem a bit, and/or sliding it down further onto the pencil.)







## **VORTICELLA "PENCIL TOPPER"**

