

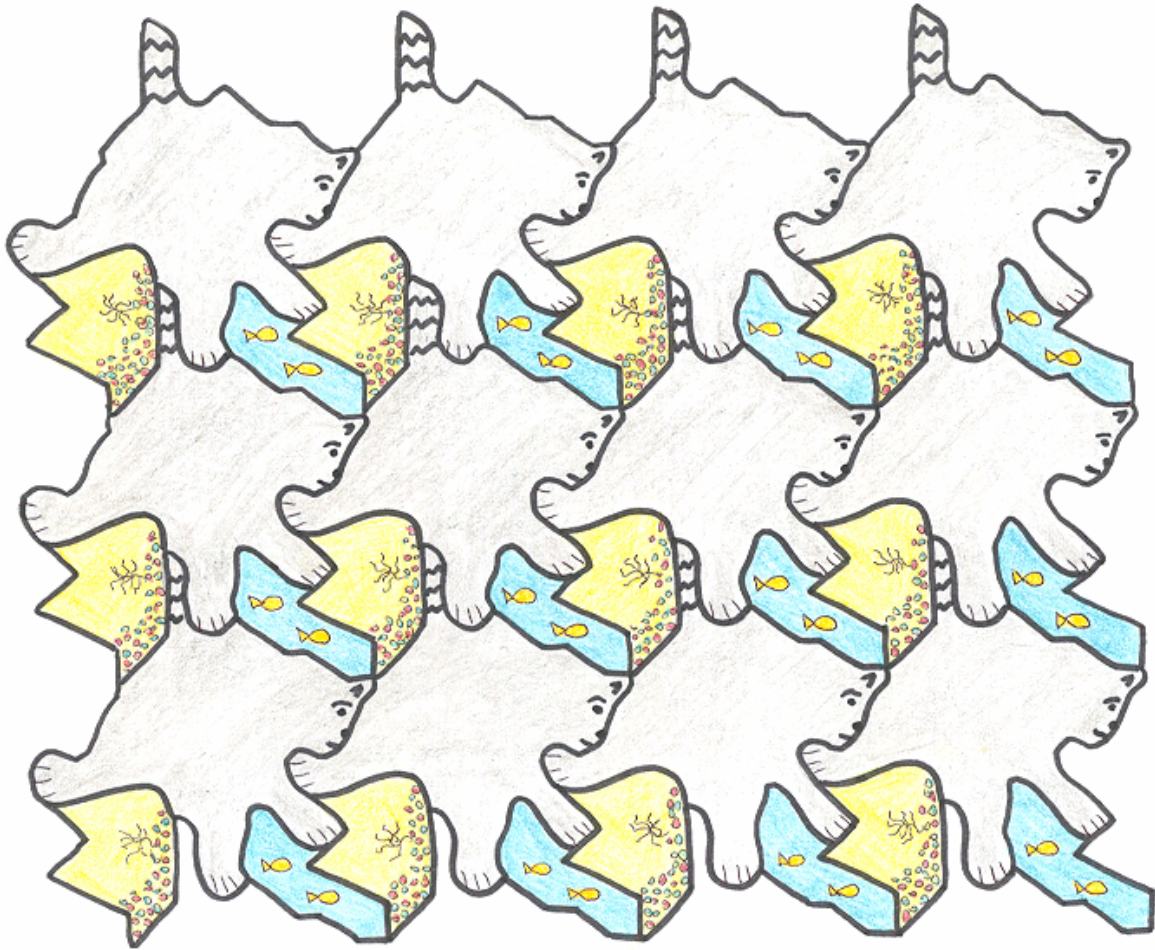
Tessellations

Math 3403 - Section 1

Scanned copies of some of the tessellations projects created by students in Math 3403 (Geometric Structures – Section 1) are reproduced in this document. Please enjoy!

Fall 1999

Jennifer Sanders



Fish Dinner

Type TTTT

Fish Dinner

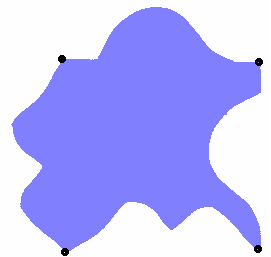
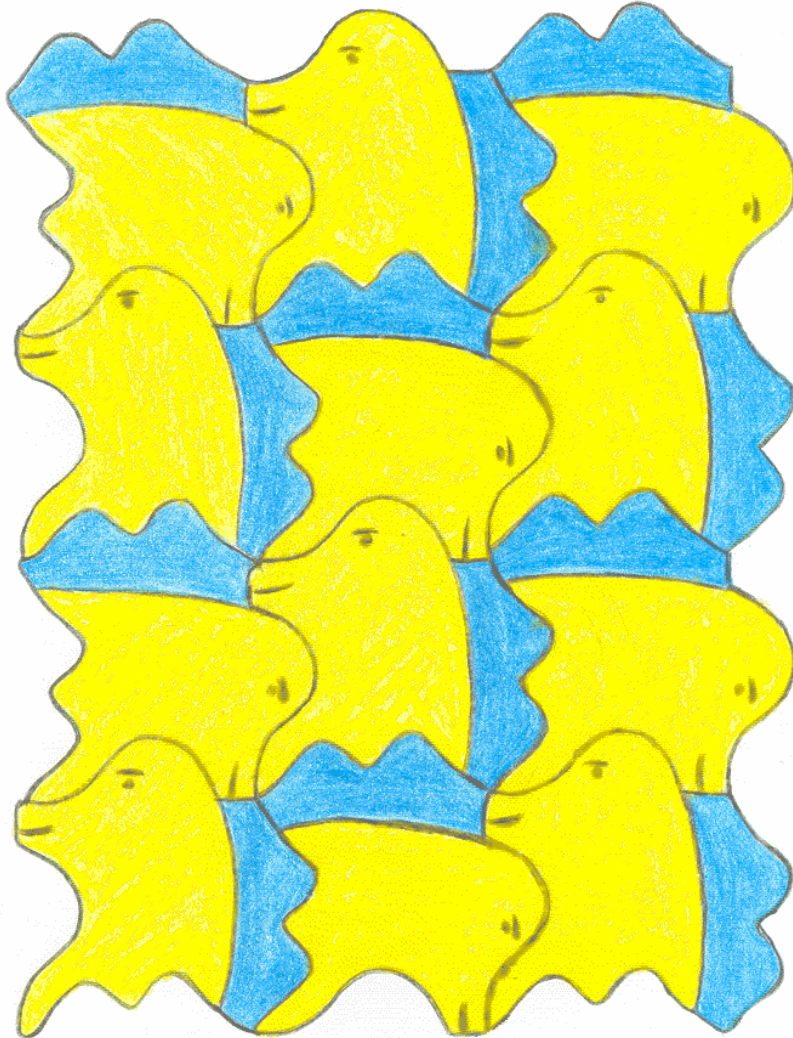


Heesch type = TTTT

In order to make this design, I simply began to cut random designs out of one side. I transferred this shape directly across to the opposite side and taped it on. I did the same to the other two sides. On a piece of paper, I began to trace the figure and fit it together for each copy of the prototile. Once I had drawn many of the prototile figures, I began to look at the design to see if I could picture any figures or scenes in the final design. For this prototile, I visualized a cat who has tipped over (and broken) a fishbowl. The cat is pouncing on the spilled water and the two spilled fish!!

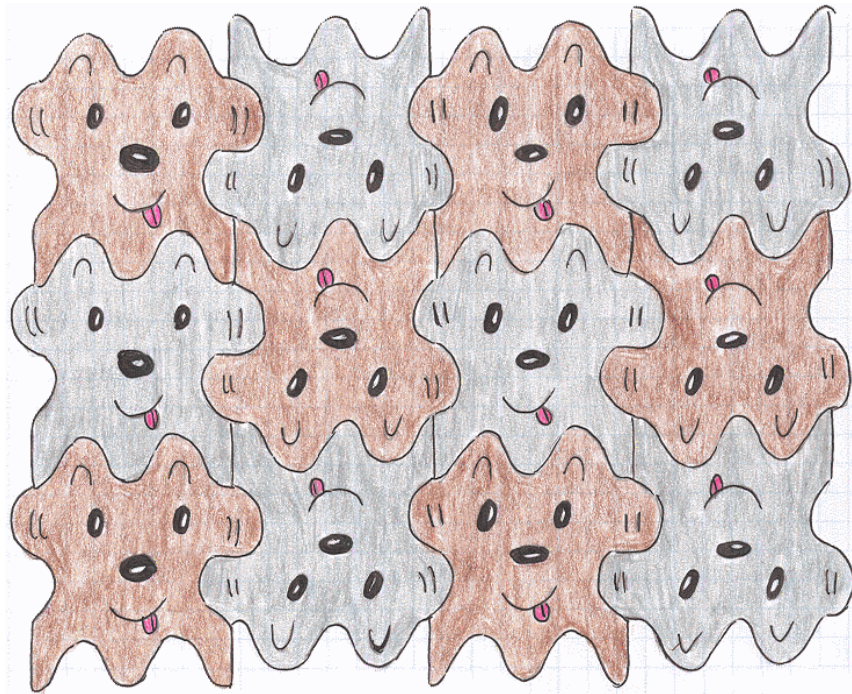
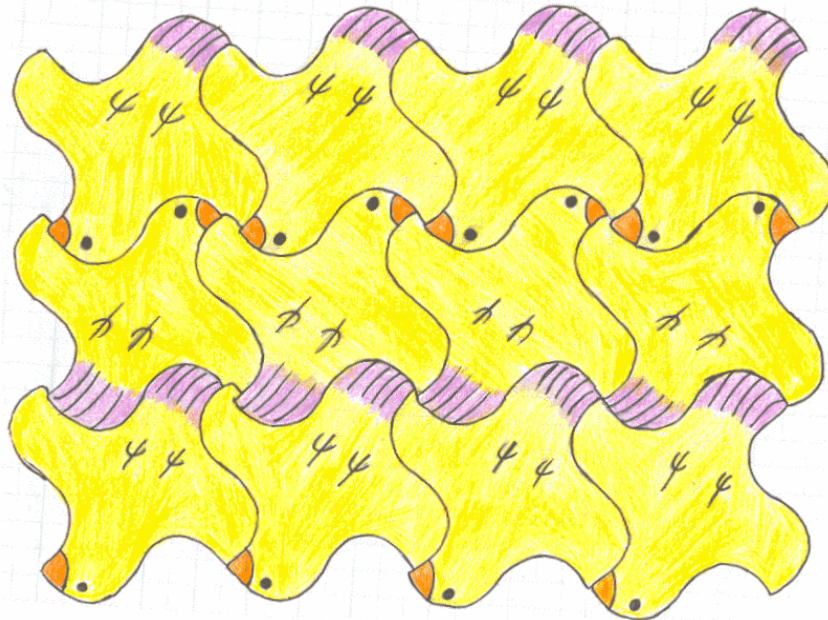
Jennifer Sanders

Rubber Ducky



Type G'G'G'G'

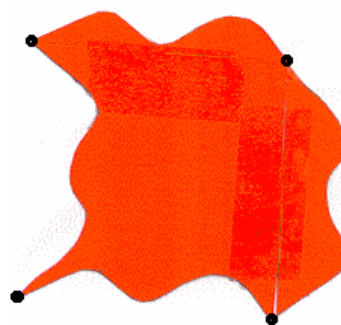
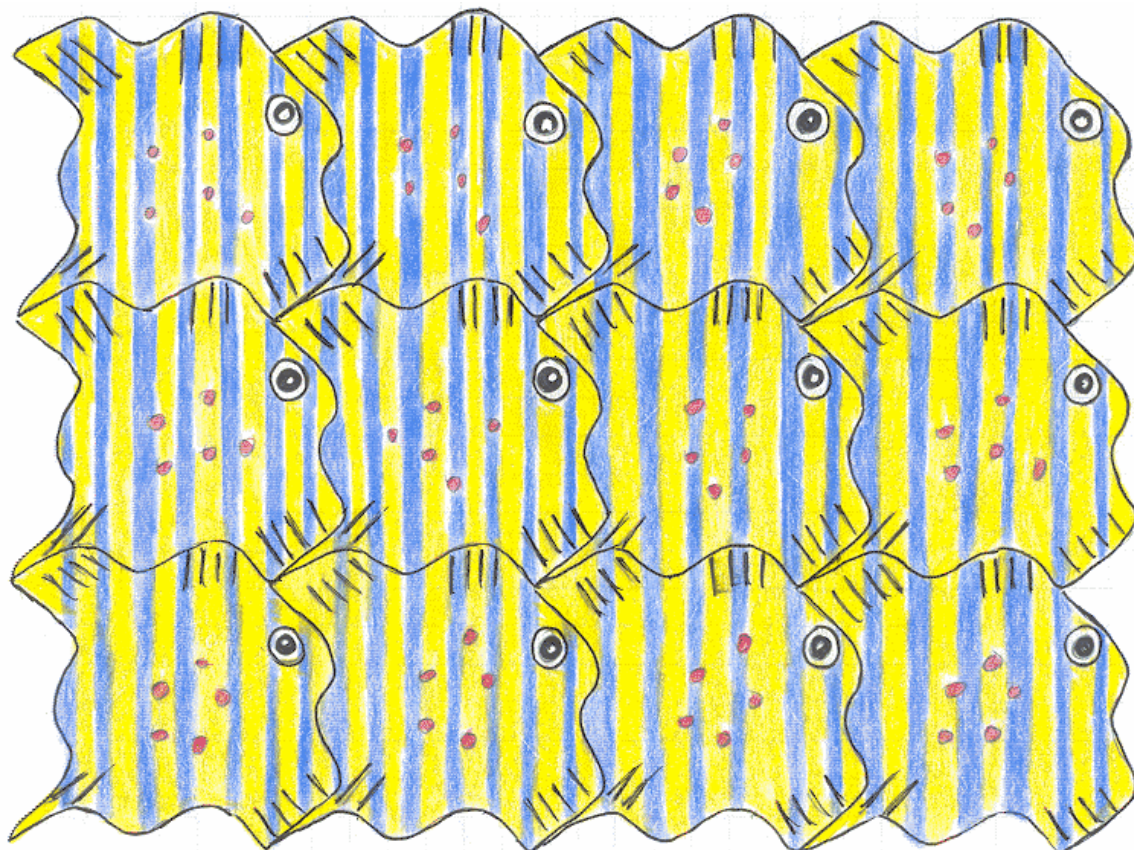
Mei-Chen Chou



Type TCTC (Ambiguous)

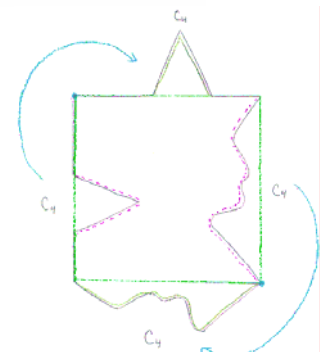
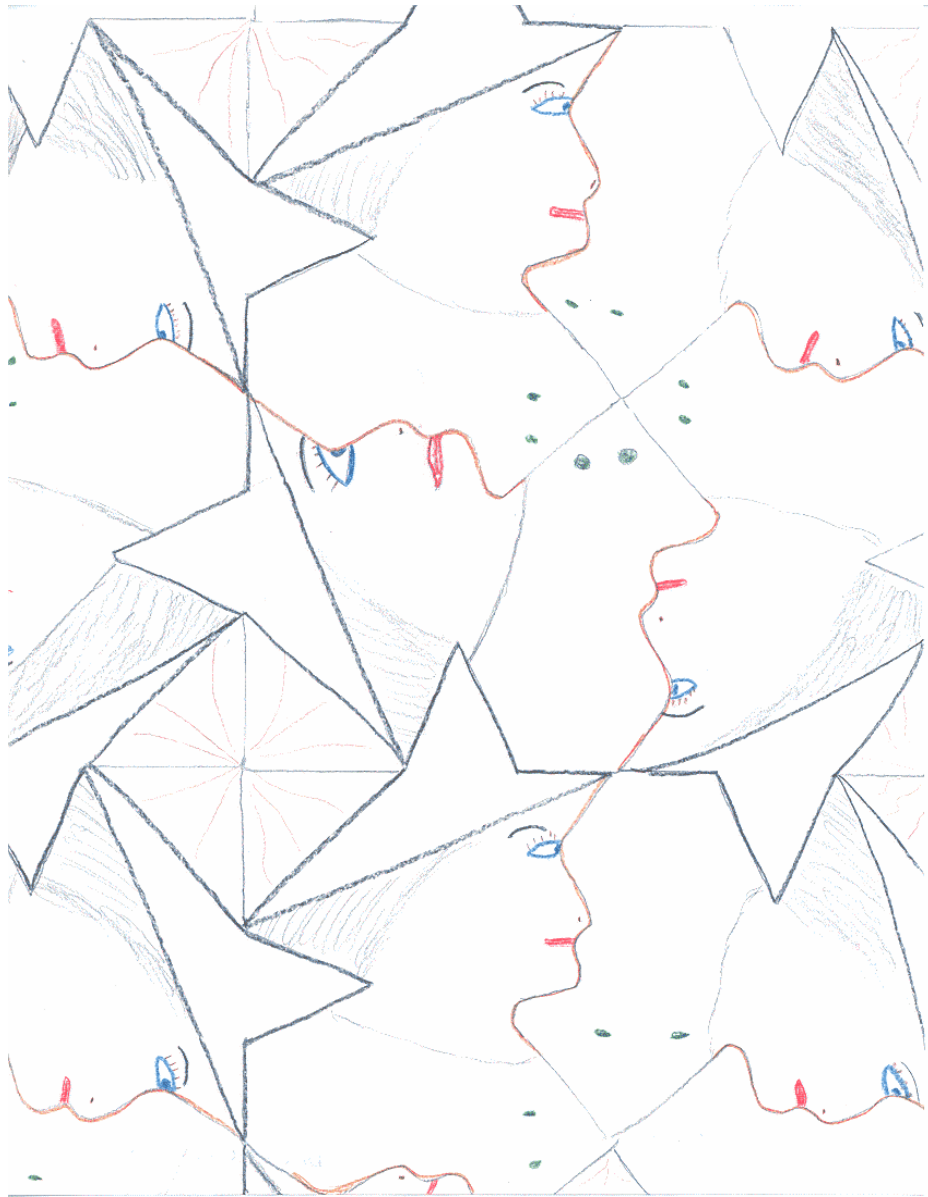
Type TCTC

Mei-Chen Chau



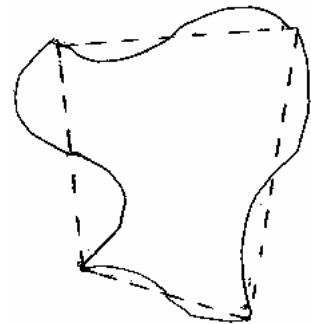
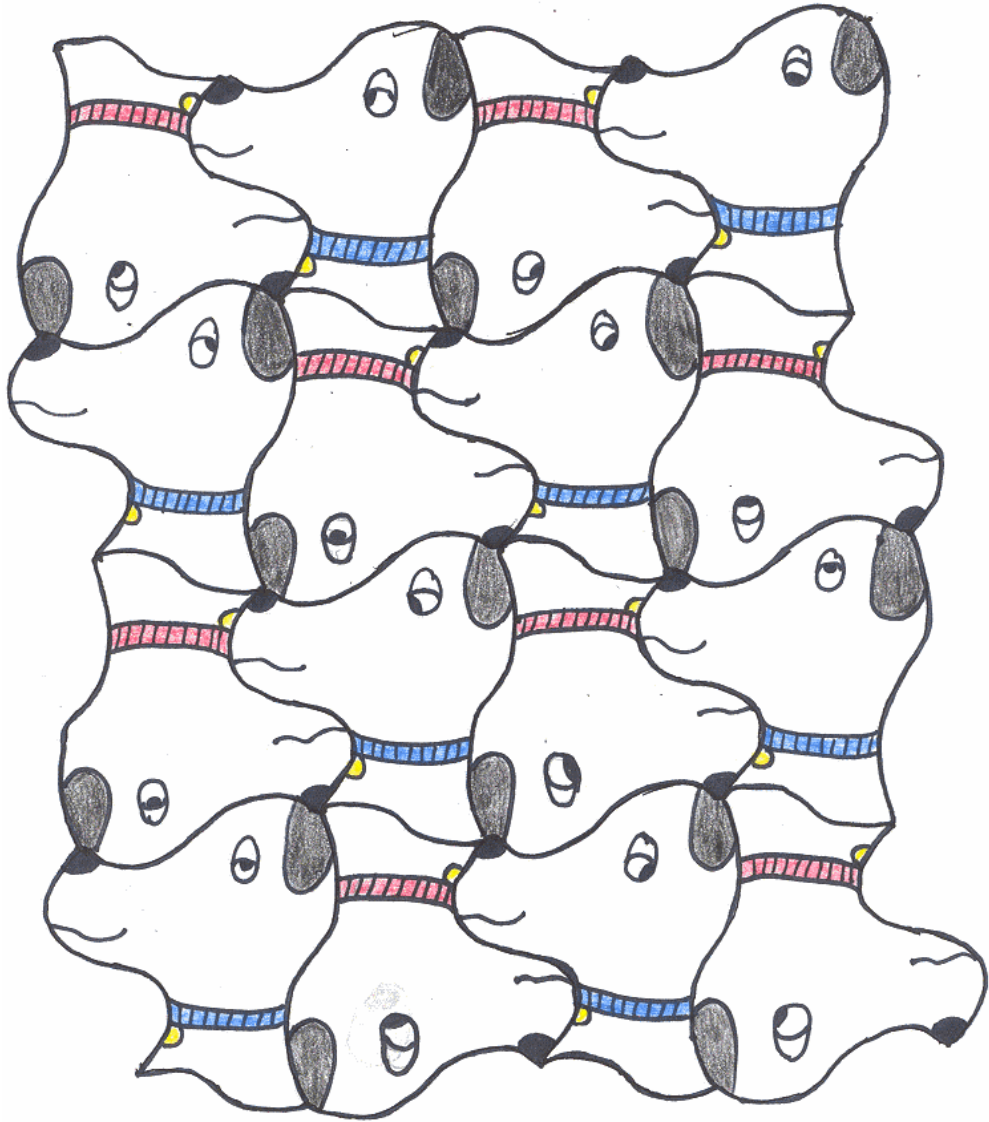
Type TTTT

Donna Lancaster



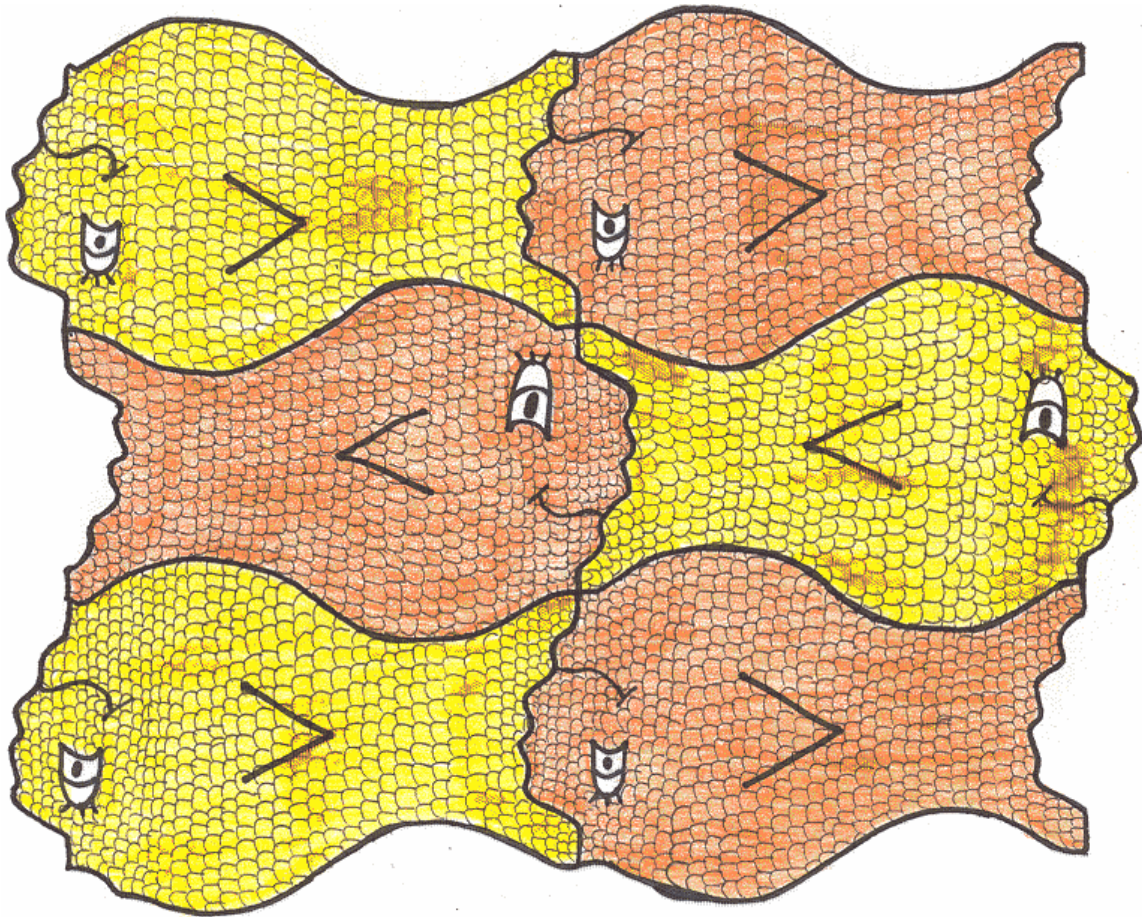
Type C₄ C₄ C₄ C₄

Julaina Utley (with the help of her daughter)

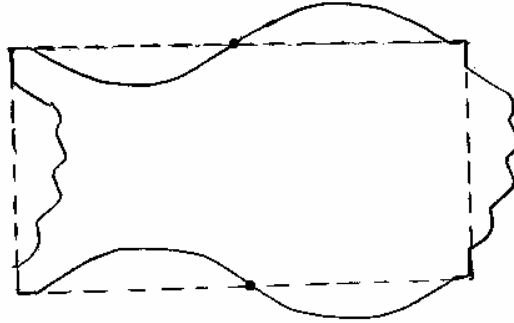


Type CCCC

Juliana Utley (with help from her daughter)




Type TCTC

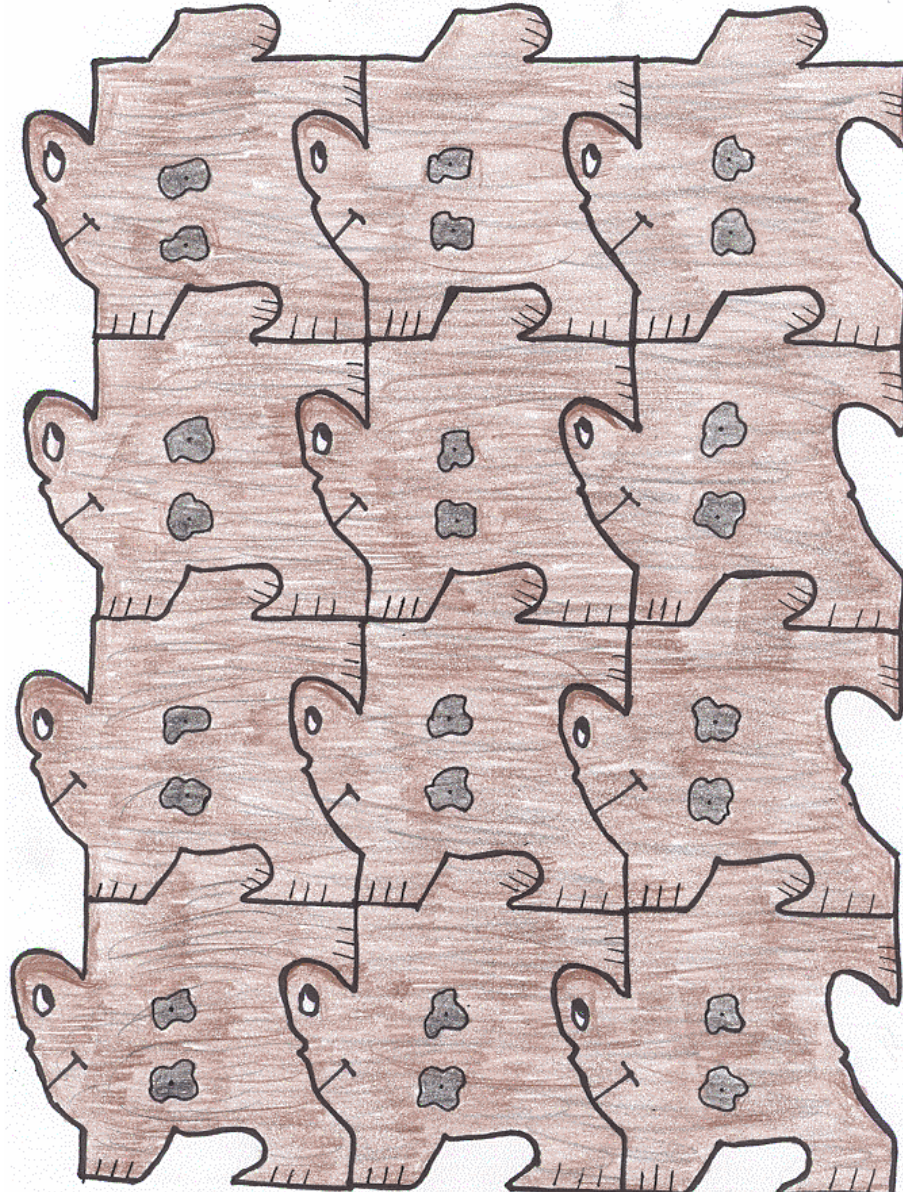


TCTC Fish

Instructions:

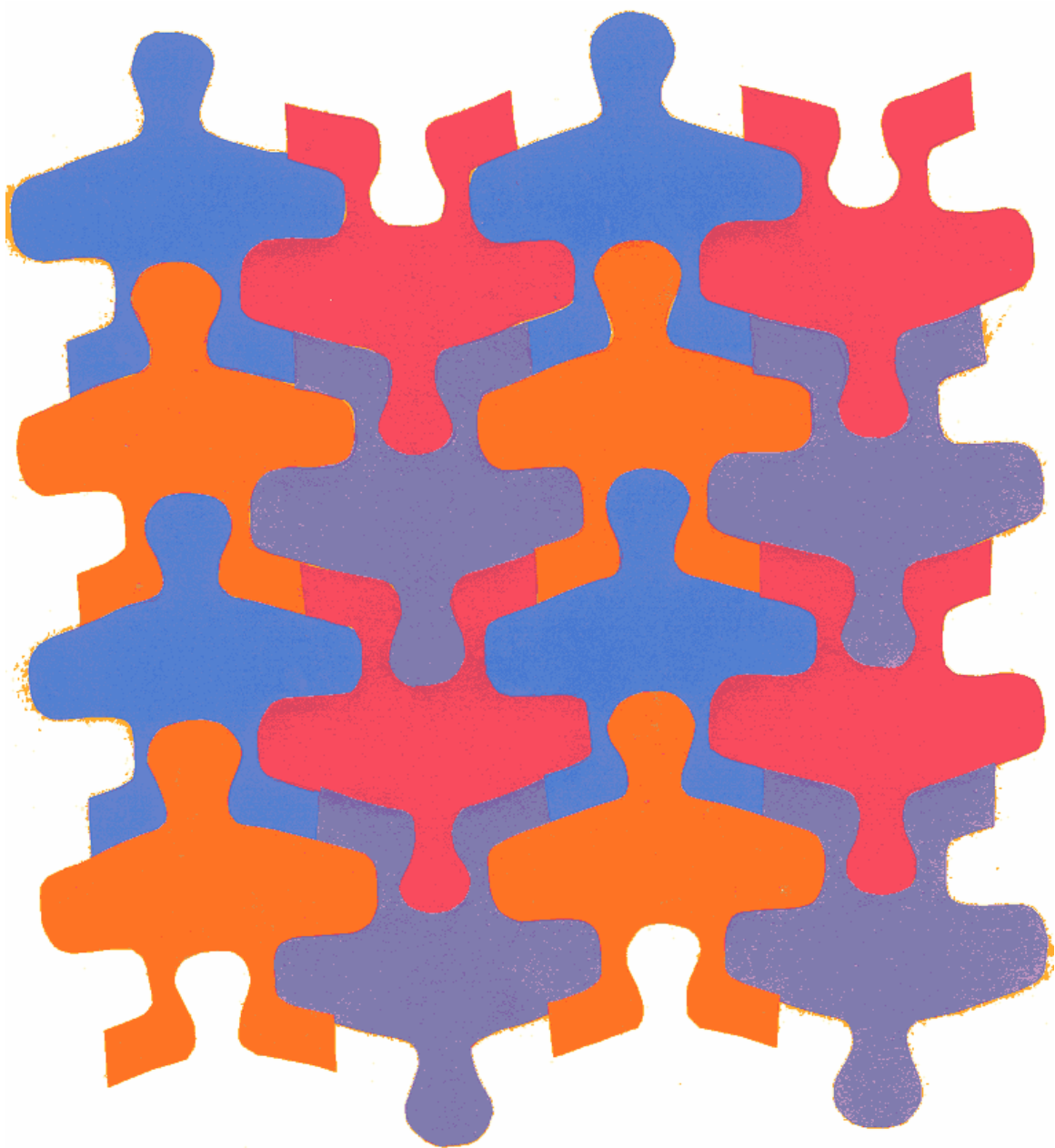
- 1) I first decided to use a rectangle as the basic shape to develop my prototile.
- 2) Next, I found the midpoints of the two long sides. These were to be the points of rotation.
- 3) I then cut out a half ellipse shape 
- 4) This shape was then rotated around the midpoint.
- 5) Repeat on opposite side.
- 6) Then I cut out a shape from the bottom ^{and translated} to the top.
- 7) I studied the shape and at first saw an icecream soda, but had trouble coloring prototile to look right. I then decided it looked like a fish.
- 8) I took the basic rectangle and created a dot grid on white paper to use as a guide to tessellate.
- 9) Next, I took the prototile and copied it on the grid.
- 10) Lastly, my daughter colored the tessellations to make it look like the fish I saw.

Juliana Utley (with help from her daughter)



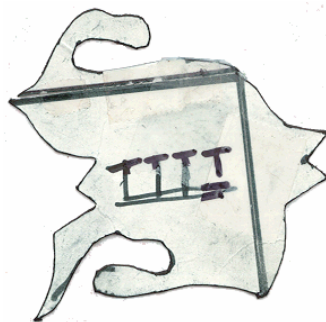
Type TTTT

Angela Anderson



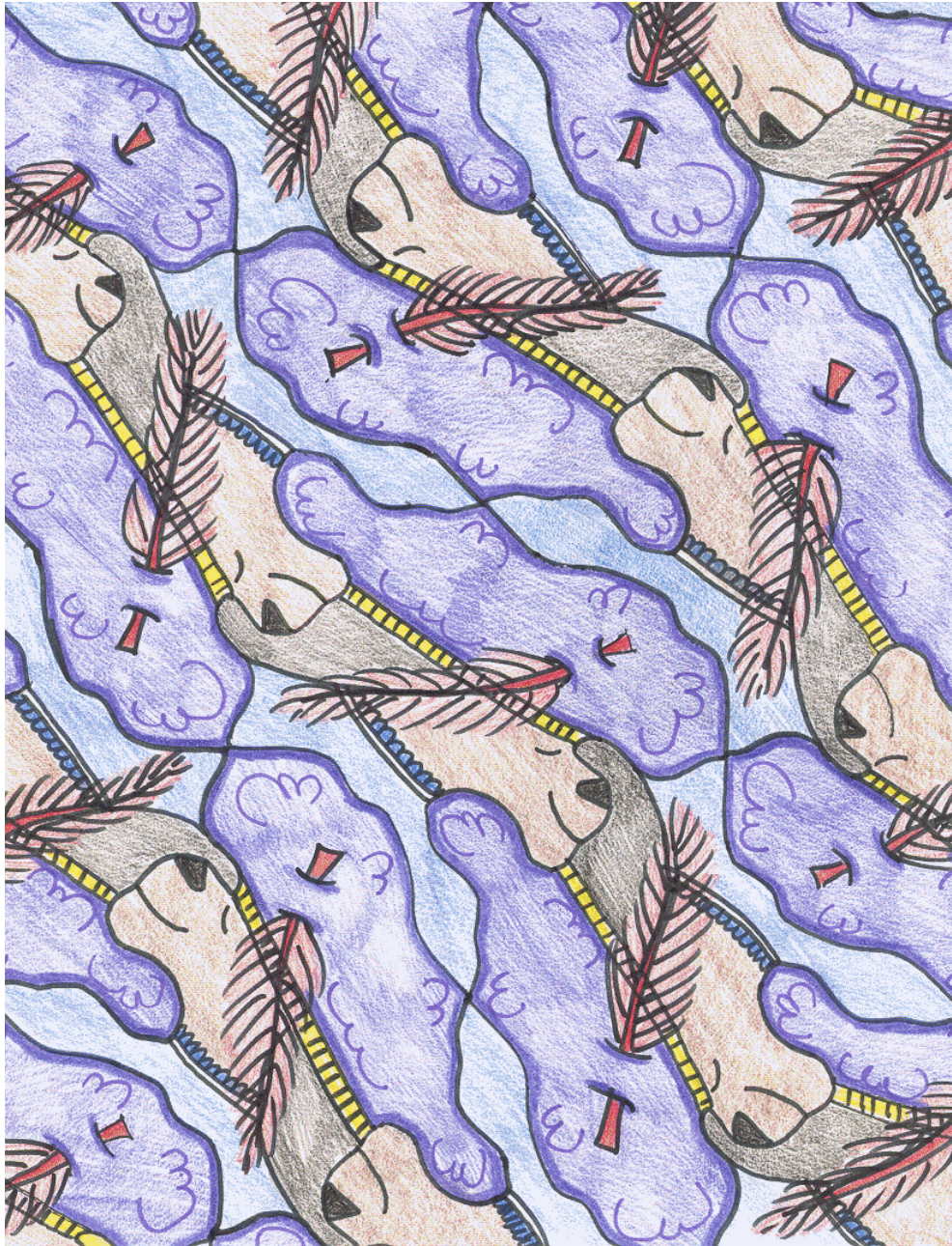
Type TCTC

Dana Eskridge



Type TTTT

Dana Eskridge



Type GGGG