Abacabax Pop-Up Model

Model 1: Staircase

1. Print out the template (choose paper size A4 or US letter)
2. Fold in half along the center line so the printing is visible on the outside.
3. Cut from the fold on the two solid lines, stopping when you reach the dotted line.
4. Fold the center flap up and crease sharply. Unfold the flap, turn the paper over; and fold the flap up in the other direction.
5. Open the paper partway and press the flap inwards so the center crease on the flap reverses itself. Close the paper and press it flat.
6. There are now two solid lines on the newly folded creases in the center of the folded paper. Cut along these two lines. There are now two flaps in the center – fold both of these up and down as in the first step. Open the paper slightly and press both of these flaps inwards so that their center creases reverse themselves and press the paper flat.
7. Repeat these steps on the next two lines. You will make four flaps on this step.
8. Finally, repeat on the smallest lines. Be careful while cutting – the folded paper is fairly thick on this final step.
9. Open the paper to a 90° angle to see the fractal staircase!
10. For a nice effect, fold a piece of colored paper in half and glue the staircase to this paper.

Model 2: Abacabax

This is a challenging model to fold but the result is striking. Make model 1 first to become familiar with the cutting and folding techniques before attempting this model.

1. Print out the template (choose paper size A4 or US letter)
2. As in model 1, fold in half and cut along the two longest solid lines in the middle. Fold the center flap and press it inside.
3. With the paper folded and flap inside, cut along the 4 next-longest lines (1/2 the length of the first). This creates a double flap in the middle and two single flaps on the left and right. Fold and press these 4 flaps inside.
4. Cut along the 8 next-longest lines (1/4 length of the first). This creates a quadruple flap and several double and single flaps. Fold and press each inside.
5. There are now 16 short lines to cut along. Be careful cutting these as the paper is fairly thick. Fold each inside.
6. The model is complete. Glue inside a folded piece of colored paper.