

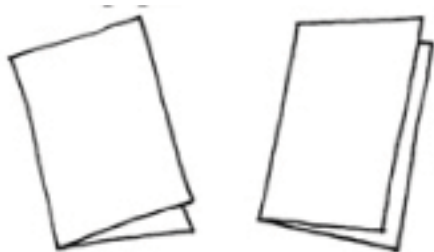
# INTRODUCTION TO GRAPHICS

## POP-UP BIRTHDAY CAKE

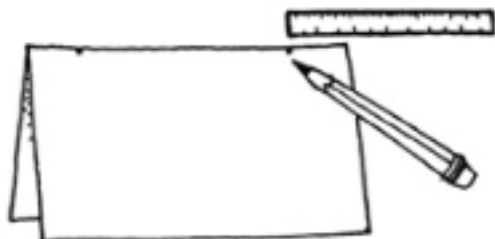
ADVANCED  
PROJECT No.

PS891

1. Take two pieces of paper, each 8.5 x 11 inches. Fold each paper in half. Put one paper aside.



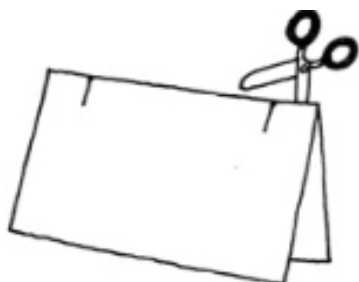
2. On the folded edge of the other paper, mark two dots each 1.75 inches from the ends.



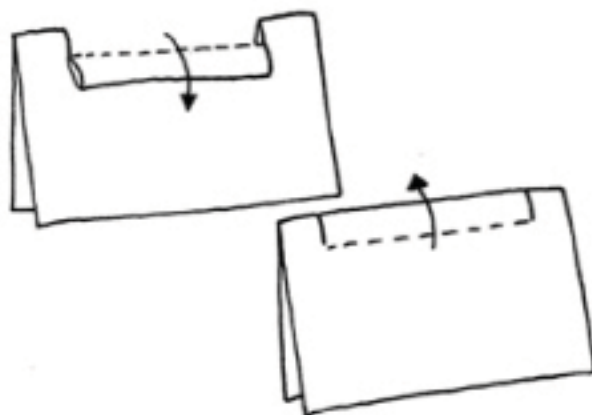
3. Starting at the dots, draw two parallel lines toward the other edge of the paper. Each line should be 1 inch long.



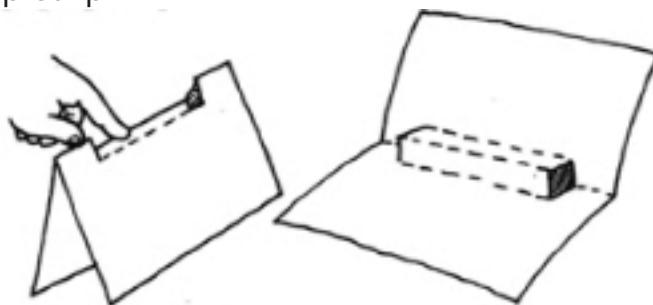
4. Cut the lines, starting from the folded edge.



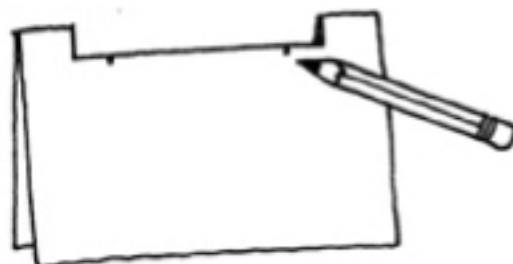
5. Fold the cut strip forward and then fold it back to its original position.



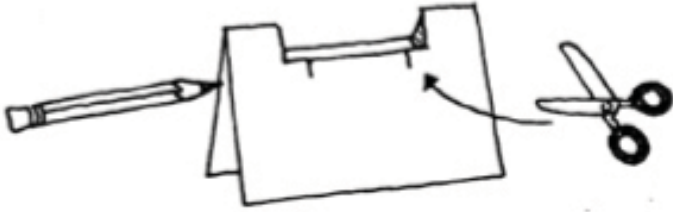
6. Open your paper and hold it like a tent. Push the strip down in the composite direction of the fold, so that it pushes through to the other side of your paper. Close the paper and press firmly. Open to see the pop-up strip.



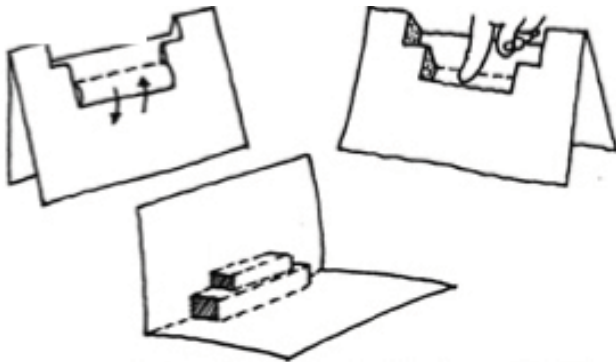
7. Close your paper. On the folded edge of the pop-up strip, mark two dots, each one 3.4 in from the ends.



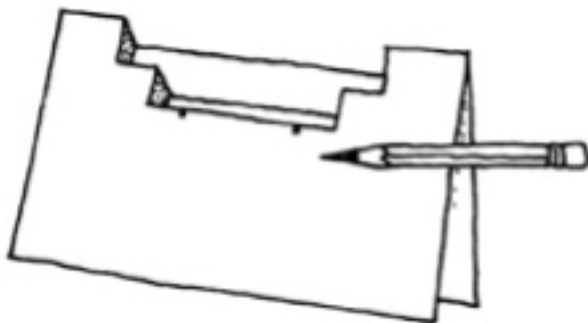
**8.** Starting at the dots, draw two parallel lines towards the other edge of the paper. Each line should be 3.4 in. long. Starting from the folded edge, cut the lines, being careful to cut through only the top fold of your paper. Do not cut through both folded edges of the pop-up strip.



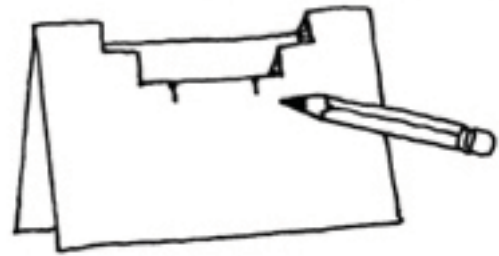
**9.** Fold the cut strip forward and then fold it back to its original position. Open your paper and push the strip down through to the other side of your paper. Close the paper and press firmly. Open to see the second pop-up strip.



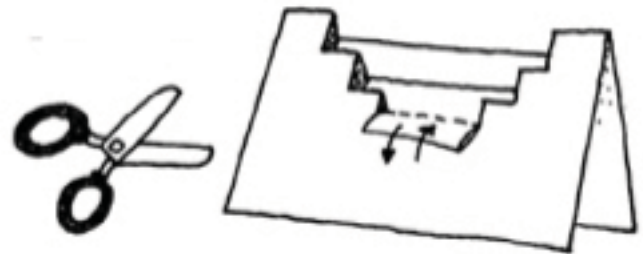
**10.** Close your paper. ON the folded edge of the last pop-up, mark two dots, each 5.8 in. from the ends.



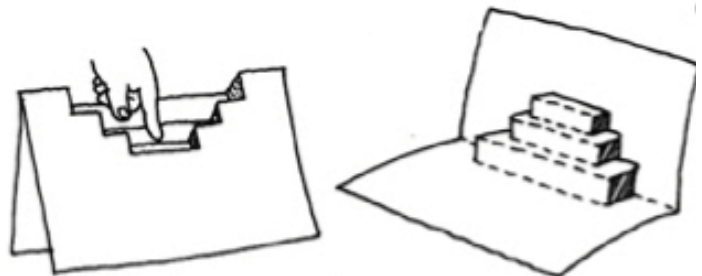
**11.** Starting at the end dots, draw two parallel lines towards the other edge of the paper. Each line should be 1.2 in long.



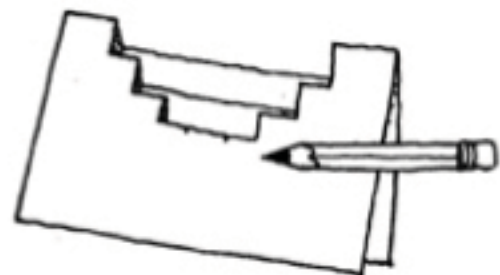
**12.** Cut the lines, starting from the folded edge. Again, do not cut through both folded edges of the pop-up strip. Fold the strip forward and then fold it back into its original position.



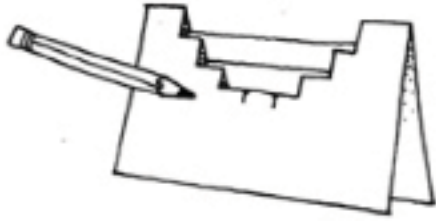
**13.** Open your paper and push the strip down and through the other side of your paper. Close the paper and press firmly. Open to see the third pop-up strip.



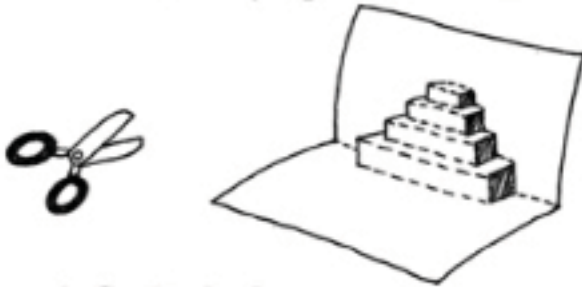
**14.** Close your paper. ON the folded edge of the last pop-up strip, mark two dots, each one 5.8 in. from the ends.



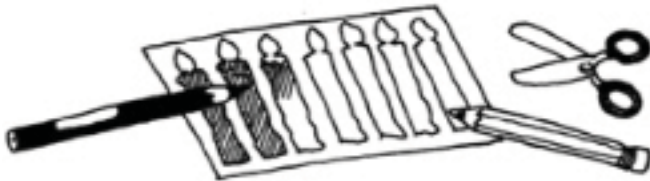
15. Starting at the dots, draw two parallel lines towards the other edge of the paper. Each line should be 1.4 in. long.



16. Cut the lines as you've done for the other pop-up strips. Fold the strip forward and then fold it back to its original position. Push the strip down and through the other side of the paper. Close the paper and press firmly. Open to see the fourth pop-up strip.



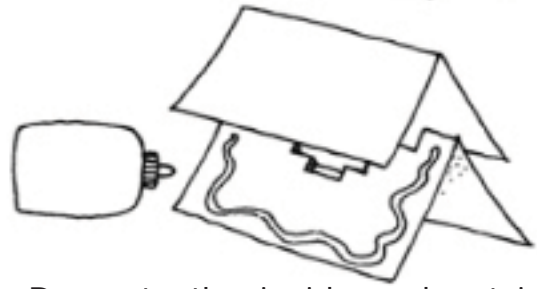
17. To make the candles for your cake, take a piece of heavy white paper. Draw, color and cut out the candles.



18. Apply glue to the back of each candle and glue the candles to the front edge of the folded layers of the cake.



19. Now apply blue to the back of your paper. Glue it to the paper you put aside, which now becomes the outside paper. Do not apply glue in the area of the birthday cake.

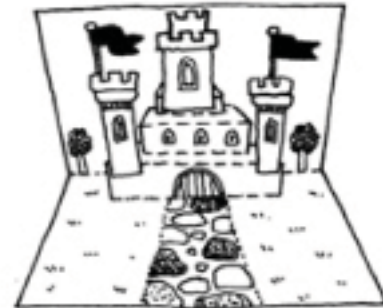


20. Decorate the inside and outside papers.

## Other ideas

### Castle

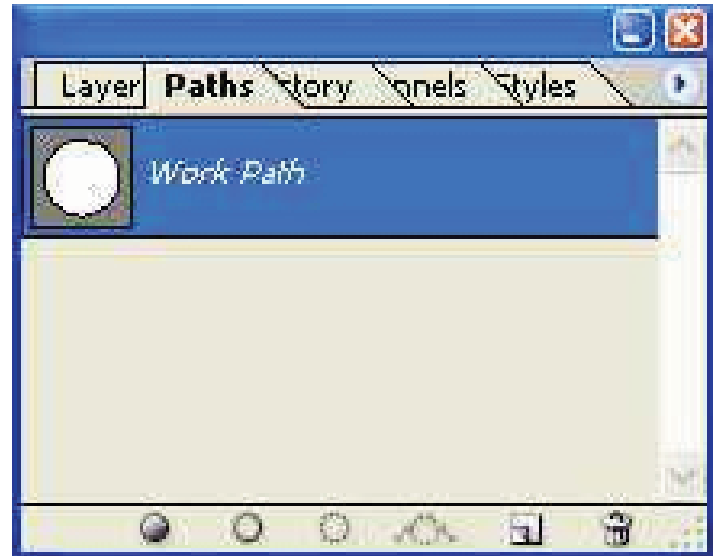
By adding doors, windows and towers with flags the basic steps to make the cake can be transformed into a medieval castle.



### Ship

Using the same techniques as previously, it could be a simple matter to make a ship by adding portholes, a flag and sails.





an image from one of my favorite stock websites, Photos.com.

Make a copy of the Background layer, then fill the original background layer with 100% Black. Reselect the Background copy layer.

For the easiest generation of a sphere, the image needs to be square. Go to Image>Size and change the dimensions so that all sides are equal.

Now to create the sphere. With the Background copy layer selected, go to Filter>Distort>Polar Coordinates and select Polar to Rectangular. Click OK.

Go to Edit>Transform>Flip Horizontal.



A few months ago I did a tutorial instructing people how to make text appear as though it were rotating around a sphere, or at least one way of doing it. In Photoshop 7, of course, typing on a path was not an option, so the process for creating type around a sphere was a bit more involved than it is in the new revision of the software.

Before I apply the type, I'm going to walk through quickly generating a sphere with a photo. I know I've done this before, but it will be a good refresher.

First, open a photo. I'm going to use

Go to Edit>Transform>Flip Vertical.

Run the Polar Coordinates filter one more time, this time selecting Rectangular to Polar.

Click OK.

The sphere isn't quite done yet, even though it is starting to look pretty cool if I may say so. Hit the D key and then X to set Black as the Background color.



Now go to Image>Canvas Size and increase the size of the canvas by an inch or



two both horizontally and vertically. Maintain the same length for each.

With the Background copy layer active in the Layers Palette, select the Elliptical Marquee tool. In the Options Bar set the Feather to 0, Anti-aliased checked, Style to Fixed Aspect Ratio, Width to 1 and Height to 1. Make a selection around the sphere, leaving the extra color out of the selection.

Now select the Inverse (Select>Inverse) and hit the Delete key. Deselect.

So far so good! If you want to add some highlights and shadows, just run around the edges and curves of the sphere with the Dodge and Burn tools.



Don't leave the sphere yet without the tried and true white reflection added. Command/Control+Click the Background copy layer to generate a selection of the sphere shape, and create a new layer. Set White as the foreground color and fill the selection with a white to transparent gradient (set the Opacity in the Options Bar to 80% or so), starting at the top of the sphere and drawing the gradient down to the center point.

Deselect.

Go to Edit>Transform>Perspective and move the bottom points of the Transform box closer together a bit, then accept the transformation.

Whew! Sorry for taking you through all of that again, but I'm a sphere junky. Ok, let's get back to the original intent of this tutorial; wrapping type around a sphere. Photoshop CS now allows you to type on a Path. Since we can convert a selection to a path, typing around the perimeter of the globe should be, and is, a snap.