INSTRUCTIONS FOR
Magic Folding Photo Cube

Hello!

We're so excited that you want to make a folding photo cube! You can find more info on our website here:

http://chicaandjo.com/photo-cube

We put together this printable version of our web tutorial to make it easier to complete the project away from your computer.

To create a folding photo cube, you'll need:

- Eight 1.5" wooden cubes
- Two 8" x 11" sheets of double-sided tape
- White copy paper for printing your photos
- One spacer strip (see website for instructions)

Enjoy!
– Chica and Jo

Gather the supplies

Sand your wooden blocks if necessary to remove any splinters or rough edges. It is possible that the blocks will show slightly in your completed project, so you may want to use markers or paint to color the edges before you begin. We suggest a color complementary to your photos or something neutral like white or black.

Be sure to visit our online tutorial for instructions for making a spacer strip, which you will need for this project.

Along with the other items we mentioned above (and which are described in detail on our online tutorial), you'll also need to grab your scissors or a paper trimmer for cutting your photos down to size.

Choosing and printing photos.

You will need eight 3″x3″ pictures and two 3″x6″ pictures for this project. These photos can not be printed on typical photo paper, because photo paper is too thick to bend easily and won't work for this project. Instead, you need to either have color copies made of your photos at the local copy shop, or print the pictures yourself on a thinner paper. We recommend a nice 24lb premium inkjet paper, preferably one labeled as smudge-resistant.

For richer printed photos, you may want to tell your printer that you are printing on photo/glossy paper, rather than ordinary paper. This little lie will cause your printer to push out a lot more ink and your photos will be much brighter and bolder, giving you much better results than regular paper printing will.
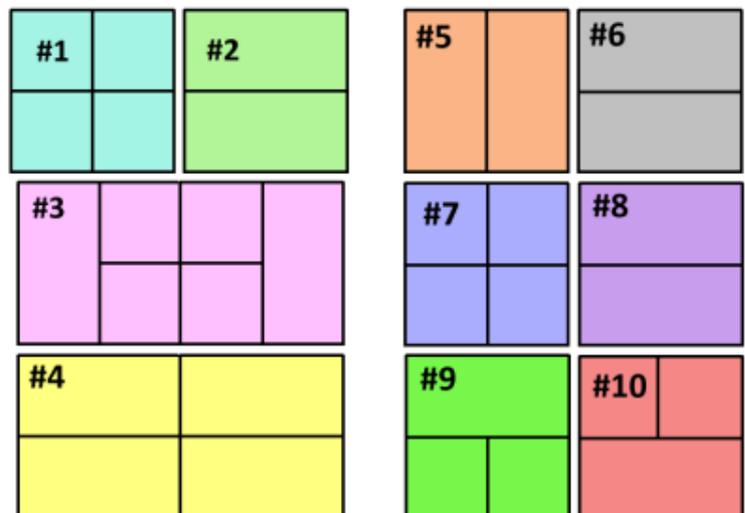
Once you've selected all your photos and printed them out on proper paper, go ahead and cut them to size, but take note — cut each picture just a tiny bit larger (about 1/16 to 1/8 of an inch) than the specified measurement. This extra little bit will help later when your photos have to span the gaps between the blocks. If the pieces end up too big, you can always trim them later with a utility knife or scissors - better safe than sorry!

Preparing the photos

Now that your photos are printed and cut to size, you will need to back them with the double-sided adhesive we sell in our store. Also known as "red liner" tape, this stuff is incredibly sticky, very durable, and thick and flexible enough to make perfect, non-tearing hinges between your blocks. Two 8″ x 11″ sheets are more than enough to handle all of your photos. Peel one side of the backing off the adhesive and arrange your photos on it, ensuring that the back of each photo is completely covered in adhesive. Trim the photos again to size. Don't peel off the other backing layer yet!

Once all of your photos are cut and backed with adhesive, you'll need to arrange them as indicated in this diagram. Take note of the numbers in the diagram and mentally assign these numbers to your photos.

Then use a paper trimmer or scissors to cut each photo into squares/rectangles into pieces, as indicated in the diagram.

For example, cut picture #1 into four squares, #2 into two rectangles, etc. Take care of the photos after you're cut them, so they don't get mixed up!

Tip: Since your photos are actually a little larger than the finished size, be sure to cut them from the center, rather than just measuring 1.5″ from one side. This will keep the extra paper on all sides, instead of just one or two.
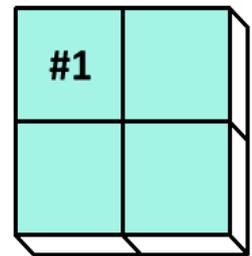
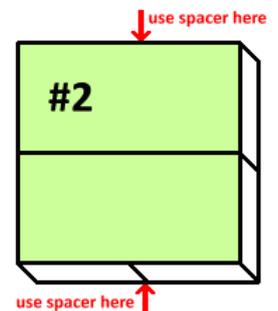Here's an example of some real photos cut into the proper, finished shapes.

Assemble the cube

With your photos all cut into the right pieces, you're finally ready to start assembling the cube!

Start by lining 4 wooden blocks up into a square on the table. Then take the four squares of photo #1 and stick each one to one of the cubes, like shown here:

Then take the other four wooden blocks and line them up into a square. To apply photo #2 to them, you'll want to put one rectangle across the top two blocks and then another across the bottom, but wait!   We need the spacer we mentioned above!
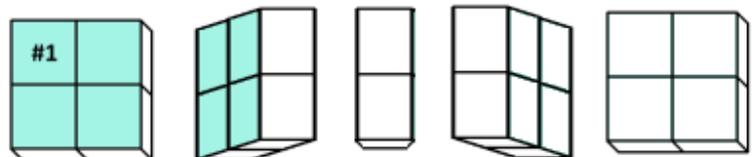
Let's think about this for a minute… later on, when our blocks are all covered in photos, they're going to be a little thicker than they are now, right? If we stick a photo across two blocks without accounting for that space first, then later there won't be room for the photos when we add them. So slide your spacer strip between the blocks, so that it sticks out where the arrows are in the diagram below. Then stick on the two pieces of photo #2 to the as shown.
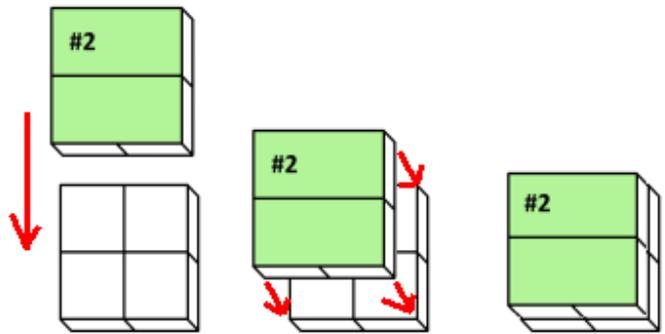

You'll also notice, as you try to make your photo reach across the two blocks AND the space, that there's a reason you cut them a tiny bit larger than 3 inches! That extra size will really come in handy for spans like this!
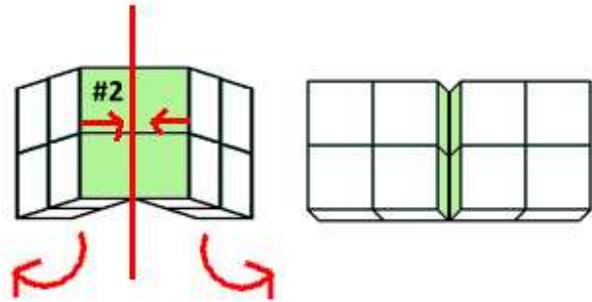
Now turn the set of four blocks with photo #1 on them over, like this:
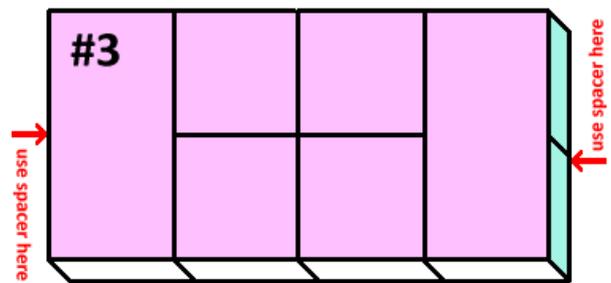
Take the four blocks with photo #2 on them and place them on top of the four you just flipped, like this:
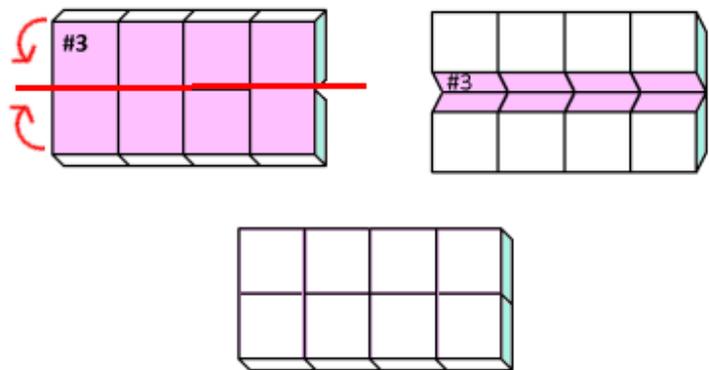
Ok, time for our first tricky fold. Put your hands on the left and right side of your cube, grabbing 4 blocks with each hand. Lift the sides up so that the top (photo #2) folds in on itself, as seen here, with the pivot being the red line in the diagram. The result will be all eight blocks laying in a rectangle.
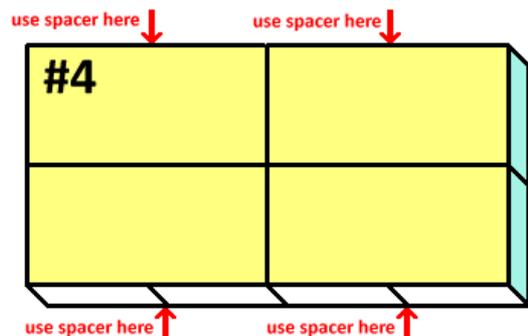
Apply the pieces of photo #3 to the tops of the eight blocks, taking care to use the spacer whenever covering a span of two blocks, as indicated with arrows in here:

Now fold the top four blocks down and the bottom four blocks up, with the pivot on the red line in the diagram. Your new photo #3 that you just attached will fold in on itself and become hidden inside. You'll end up with eight blocks showing in a rectangle.
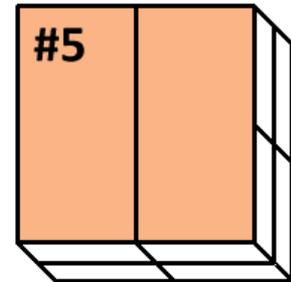
Apply the pieces of photo #4 to the tops of the eight blocks, taking care to use the spacer whenever covering a span of two blocks, as indicated with arrows here:
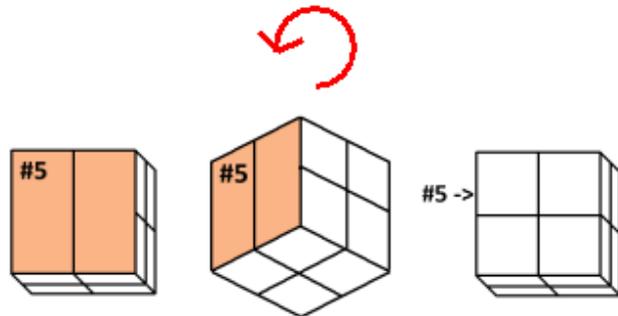
Now fold the two leftmost blocks and two rightmost blocks up towards the center, pivoting on the red lines in the diagram. Your new photo #4 that you just attached will become hidden inside. You'll end up with a cube shape.
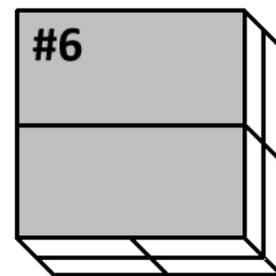
Apply the pieces of photo #5 to the tops of the four blocks. You do NOT need the spacer any more because the blocks underneath already have photos attached to them.
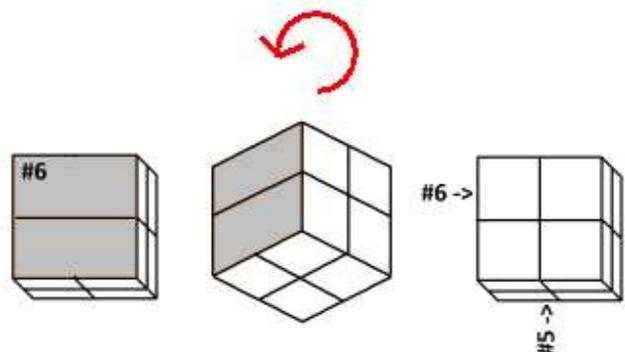
Rotate the entire cube to the left, so that photo #5 moves from the top side to the left side. You will expose a new surface with no photo on it.
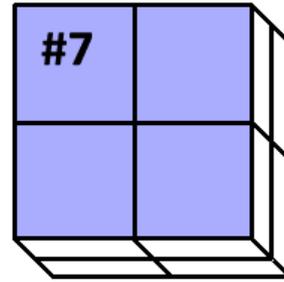
Apply the pieces of photo #6 to the tops of the four blocks. Again, you no longer need the spacer strip.
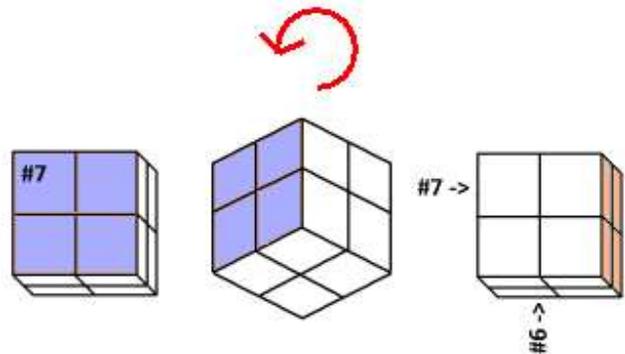
Rotate the entire cube to the left, so that photo #6 moves from the top side to the left side (and #5 is now face-down on the table). You will expose a new surface with no photo on it.
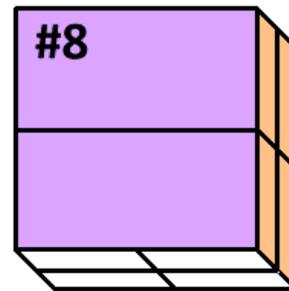
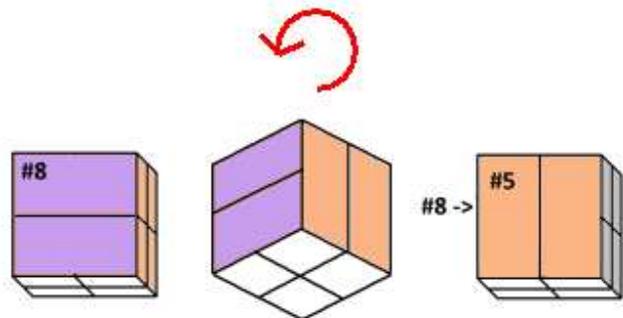Apply the pieces of photo #7 to the tops of the four blocks. Again, you no longer need the spacer strip.

Rotate the entire cube to the left, so that photo #7 moves from the top side to the left side (and #6 is now face-down on the table and #5 is now on the right). You will expose a new surface with no photo on it.
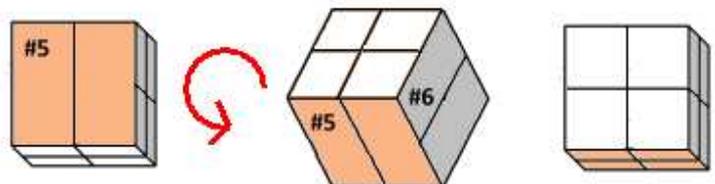
Apply the pieces of photo #8 to the tops of the four blocks. Again, you no longer need the spacer strip.
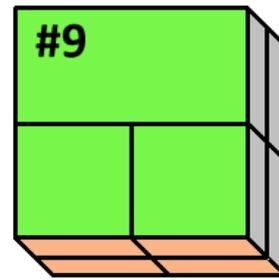
Rotate the entire cube to the left, so that photo #8 moves from the top side to the left side. You will now have photo #5 showing on top.
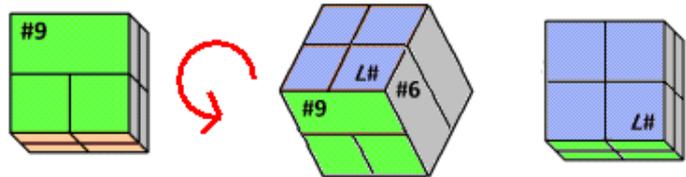
Now rotate again, this time towards you, so that #5 becomes the side closest to you and the top has no photos on it.
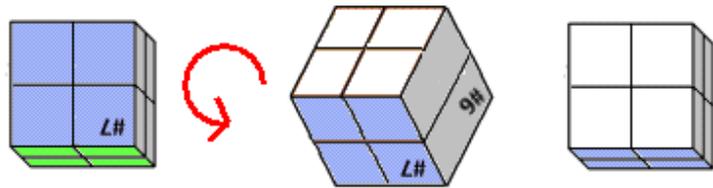
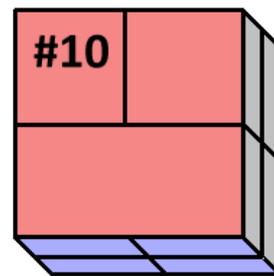Apply the pieces of photo #9 to the tops of the four blocks. Again, you no longer need the spacer strip.

Rotate the entire cube towards you, so that photo #9 moves from the top side to the side closest to you. You will now have photo #7 showing on top.

Now rotate again, towards you, so that #7 becomes the side closest to you and the top has no photos on it.
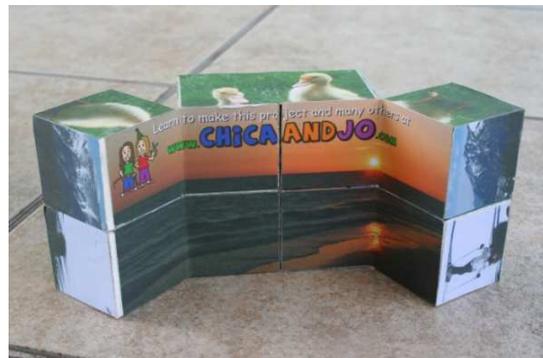
Apply the pieces of photo #10 to the tops of the four blocks. Again, you no longer need the spacer strip.

And that's it! You're done!

The result

To view all the photos, just fold and unfold the cube, revealing a new side with every twist. You can display the cube with any photo showing that you want. This custom photo cube makes a great toy, gift, or even unique commemorative "album" for just about any occasion.

Advanced step – glossy finish

Because we had to use flat paper (instead of thick, glossy paper) for the cube, it has a flat finish. If you want a glossy finish, you might want to try our embossing technique. The embossing will give the cube a finish similar to orange peel and protect it from fingerprints and damage due to extensive handling of the cube, and will make it last longer.

For this finish, you'll need a clear embossing ink pad, clear "fine detail" embossing powder, and an embossing heat tool.

First, dab the ink pad thoroughly on one side of the cube, taking care to cover the entire surface.

Before the ink has a chance to dry, sprinkle it liberally with clear embossing powder and shake off any excess.

Use the embossing heat tool to melt the embossing powder, turning it into a clear finish.

Give it a minute to cool down, then move on to the remaining sides of the cube and repeat the process until the entire cube is embossed.

The finished result will be a glossy look with a texture that's almost like an orange peel. Don't give in to any temptations to put a second or third coat of embossing powder on the surface in order to smooth it out — doing so will cause a build-up that will crack on the hinges and cause the cube to not fold properly.