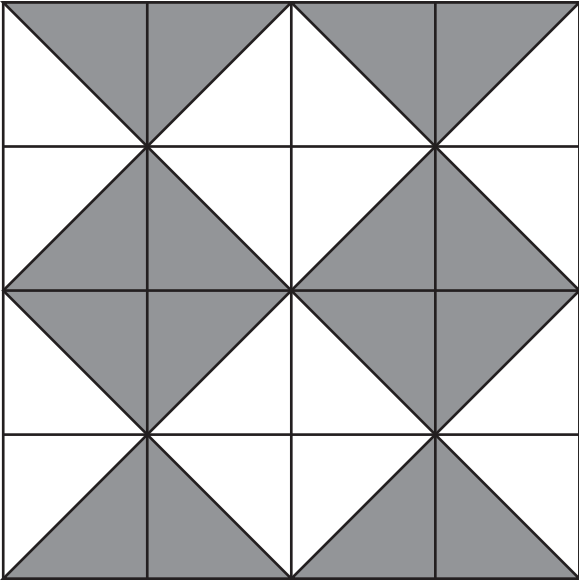


# Black and White Squares

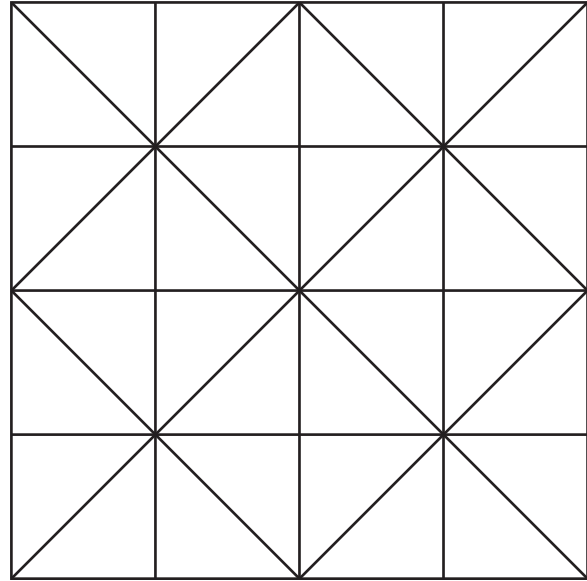
designed by Erik Demaine, Martin Demaine, and Erika Johnson, 2005

This puzzle is designed for younger folders and is a good warm up for the Colored Squares puzzle on the next page.



Color pattern (front)

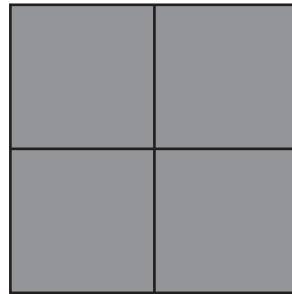
The back is entirely white.



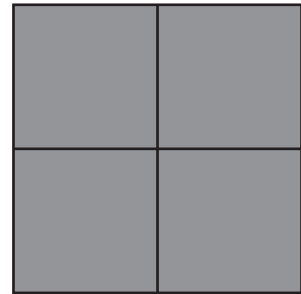
Crease pattern

**Setup:** Start with a piece of paper that is white on both sides. Precrease according to the crease pattern in the top-right. Fold the creases in both directions to make it easier for young folders to solve the puzzle. Color in the pattern in the top-left on the top side only; leave the bottom side blank.

**Goal:** The goal is to fold the  $4 \times 4$  square to a  $2 \times 2$  square that is entirely black on both sides (as shown on the right). All the black will be showing when the puzzle is solved. You will only need the creases shown in the top-right. No cutting or tearing.



Goal, front



Goal, back

## Trickier puzzle:

A trickier puzzle is to fold the  $4 \times 4$  square to a  $2 \times 2$  square that is entirely black on one side, and entirely white on the other side. Remember that the back of the puzzle is white. You will need more creases than the crease pattern in the top-right.