

Now you are ready to start making a self-locking box or cube!

EASY

SCIENCE

1

Fold six self-locking parallelograms of the same size. As parallelograms can have left or right orientations, make sure that all six parallelograms have the same orientation. In other words, make sure you fold them all exactly the same way.



2



It looks as though the parallelogram has a square in the middle and two triangular flaps on the ends. Fold the triangular flaps of all the parallelograms towards the plain side, so that the pocket face forms an exact square.

Now all six folded parallelograms – with square facets and triangular flaps – will be assembled into a regular cube. There should be a total of 24 pockets (6 x 4) and 12 flaps (6 x 2).

3

Start with two parallelograms. Insert one flap of the first into a pocket of the second.



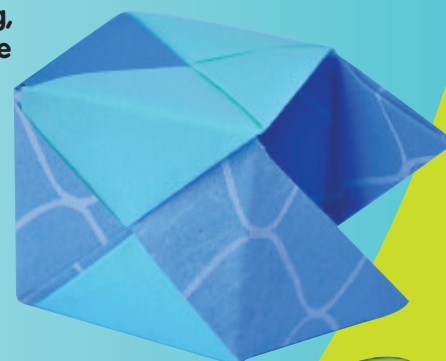
4

Take the third parallelogram and insert both its flaps, one in each of the previous parallelogram pockets. Thus one corner of the cube will be assembled.



5

Continue assembling, taking care that all the flaps come over the square facets and are inserted in the pockets. Make sure there are no flaps inside the cube.



6

You absolutely do not need any glue. Your box stays together all by itself. You can even drop it and it shouldn't fall apart. Told you it was a cool thing to make!



You can use these boxes to pass secret messages to your friends or use them as little gift boxes. Put the contents into the box before you insert the last flap. If you tie a piece of ribbon around the box, no-one will have a clue how to open it. Have fun! Try making different sized boxes. See how big you can go (use newspaper) or see how small your fingers can fold. Remember, though, you need to start off with perfect squares of paper otherwise it won't work!

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