

Flying Disc Paper Instructions Handout

Folding a sheet into 12

Start with a full sheet of standard sized paper. You'll be folding it into 12 equal fractions. Fold your sheet in half and then half again. You should have 4 equal parts. If you fold in half and then half again, you'll have 16 pieces. The easiest way to get 12ths is to divide the quarters by 3. Use your ruler to measure the longest side of the rectangle. Take that number and divide by 3. Use your ruler to measure out your sections. Make your folds. You should now have your sheet of paper divided into 12.

Cutting paper strips

Start with a full sheet of standard sized paper. You'll be cutting it into strips 2cm x 10cm. Use your ruler to measure and then trace as many of these size strips as possible from your sheet. How many pieces can you make? What fraction of the paper does this represent? Do you have any remainder? If yes, you can discard it. Set the strips aside as you'll be using them again later.

Cutting paper squares

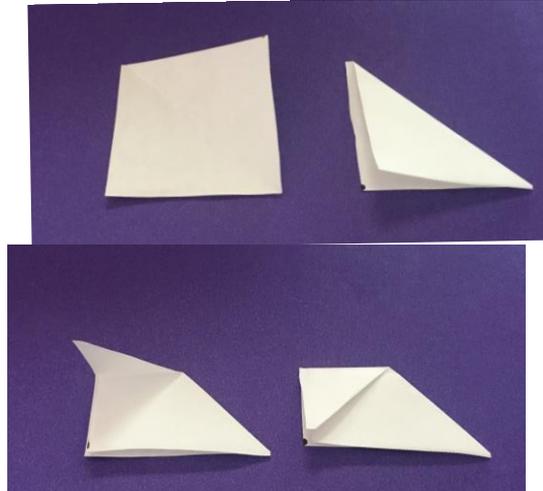
Start with a full sheet of standard sized paper. You'll be using it to cut out 8 squares that measure 5cm x 5cm. Use your ruler to measure and then divide the sheet into the right sized squares. How many squares can you make out of the whole sheet? What fraction of the paper does this represent? Cut out 8 of the squares. Set the squares aside as you'll be using them again later.

Demonstrate lift by changing air pressure

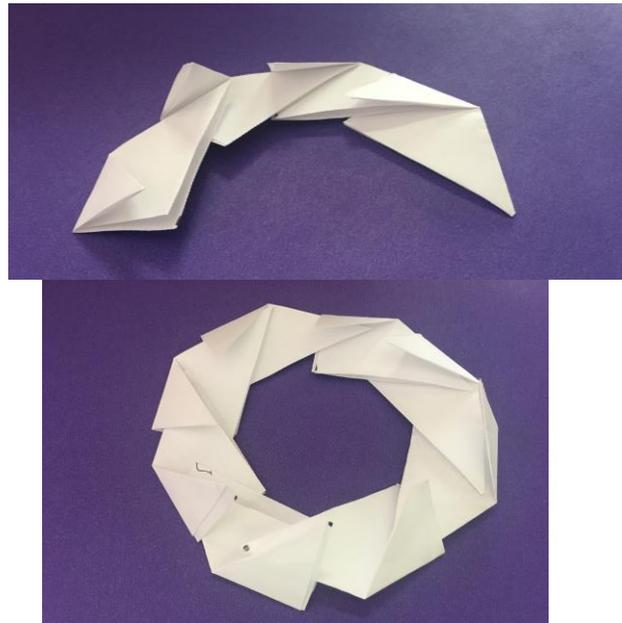
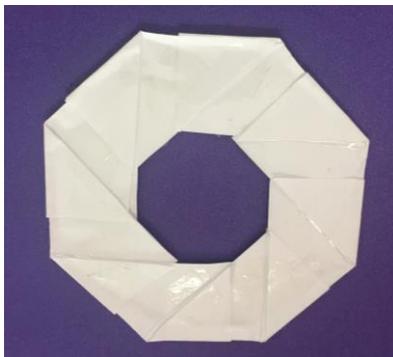
Take one of your paper strips and hold it just below your lips. Blow a steady stream of air across the surface. What happens? Take two of the paper strips with one in each hand. Lift them so they are facing each other hanging downwards in front of your face. Blow a steady stream of air between them. What happens?

Use your paper squares to build a flying disc

Fold the top right corner of one square down to the lower left corner. Then fold the top left corner down to the lower left corner to create a small triangular pocket. Repeat these two folds with the remaining 7 squares.



Insert one paper tip into the left pocket of another. Insert the shapes each one into the other until you can close an 8-sided disc.



Hold the disc firmly together while you apply tape to secure it.

Bend the edges of the disc downward slightly if you need to create lift.

Try tossing the disc in different ways to see how its flight path is affected. What happens if you drop it? What happens if you angle it up when you toss it? You can also make modifications to the structure. What happens if you use larger squares to start with? What happens if you use thicker paper? What happens if you cover the centre hole?

