

# Make a... Paper pumpkin

Origami is the Japanese art of folding paper. Follow the steps to turn a piece of paper into a pumpkin for Halloween.

## What you need

- Square piece of orange paper
- Black felt-tip pen
- 2cm piece of green pipe cleaner

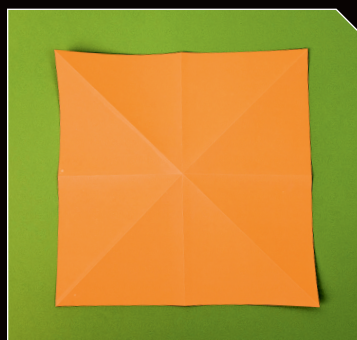


## COLOURFUL CREATIONS

In Japan, origami decorations are made by every member of the family for different holidays. Children often make colourful origami stars to decorate Christmas trees.



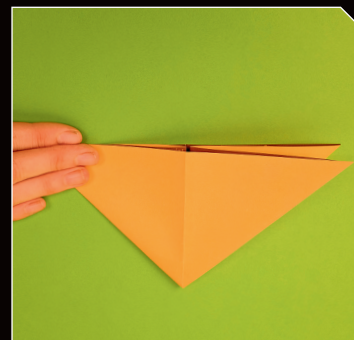
**1** Fold the square in half lengthways. Open it out then fold the square in half horizontally. Open it out again.



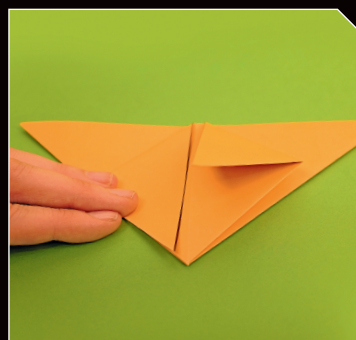
**2** Fold the paper in half diagonally both ways so that the creases form an X-shape. Now open it out.



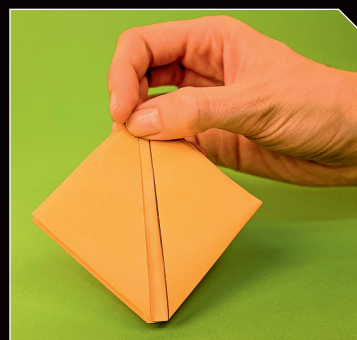
**3** Using the creases you have made as your guides, fold the paper so that it collapses, like this.



**4** Your paper should end up folded into a flat triangle like the one in the picture above.



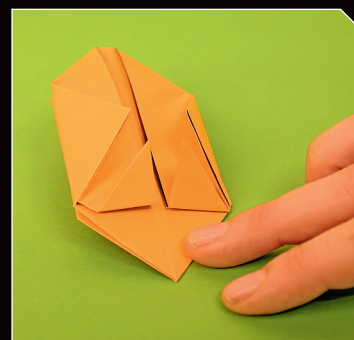
**5** Take the top right corner of the triangle and fold it towards you so that it meets the top of the triangle. Do the same with the top left corner.



**6** Turn your paper over and do the same with the other two corners. You should end up with a diamond-shape like the one above.



**7** Fold the left and right corners of the diamond into the centre. Now turn the paper over and do the same on the other side.



**8** Fold the two triangular flaps at the bottom of your shape upwards so that the tips point to the centre of the shape. Repeat on the other side.

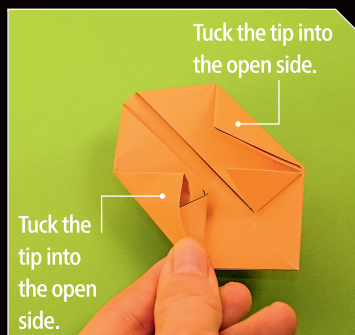


## SPLAT!

This technique can also be used to create a water bomb. Fold it up then fill it with water and throw it at the ground (outside!) to make a satisfying splat.

## TOP TIP

If you find the instructions tricky to follow, this video will help you work out what to do: [tinyurl.com/SN-paperpumpkin](http://tinyurl.com/SN-paperpumpkin)



Tuck the tip into the open side.

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**9** Tuck the tips of the two triangular flaps into the open sides of the corners that were folded into the middle at step 7. Do the same on the other side.



**10** Fold the front-facing two flaps together and the back two together so that the plain sides are facing outwards. Give it a scary pumpkin face.



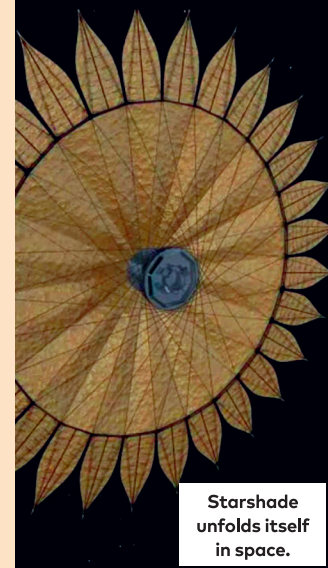
**11** Expand the pumpkin by unfolding it a little then blowing gently into the hole at the top until it puffs out. Finish it off with a piece of pipe cleaner.

## Origami science

Origami has inspired scientists to build robots, create medicine and even build spacecrafts.

### Folded flower

NASA is working on a piece of technology called Starshade that can be folded up before being placed into a rocket ready to be blasted off. Once in space, Starshade unfolds itself, creating a 26-metre sunflower shape. It would be used to block the light of distant stars so that a space-based telescope could spot faint planets.



Starshade unfolds itself in space.

### Origami bots

Last year, scientists at Massachusetts Institute of Technology (MIT) created a robot that could unfold itself and move around to perform different tasks. Nicknamed Primer, the robot can glide, roll, sail and walk, and is controlled using magnets. Primer can perform tasks such as patching up wounds and removing objects.

