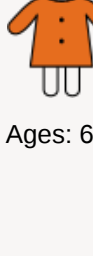


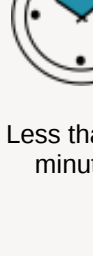
★★★★★

Paper Cup Spinning Top

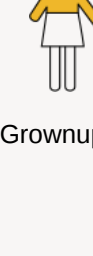
Stem Activities



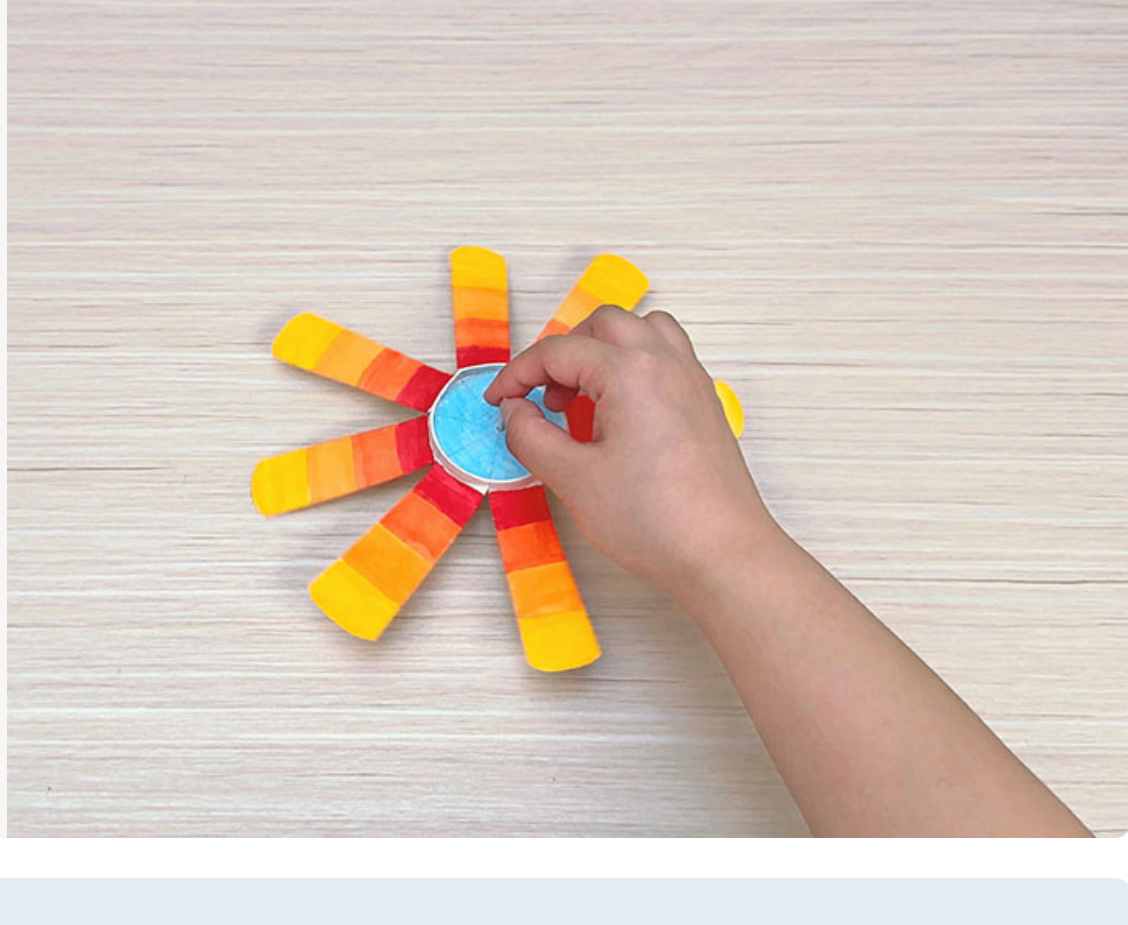
Ages: 6-8



Less than 30 minutes



Grownup needed



Do you know how spinning tops maintain their balance? Create a colourful spinning top toy from a used paper cup and discover how tops use their centre of gravity and spinning speed to stay balanced.

Materials Needed

Paper cup
Cotton bud
Scissors
Marker pens
Pencil
Ruler



Step-by-step tutorial

Step 1

Place the paper cup upside down and use the ruler to draw 4 intersecting lines as shown.



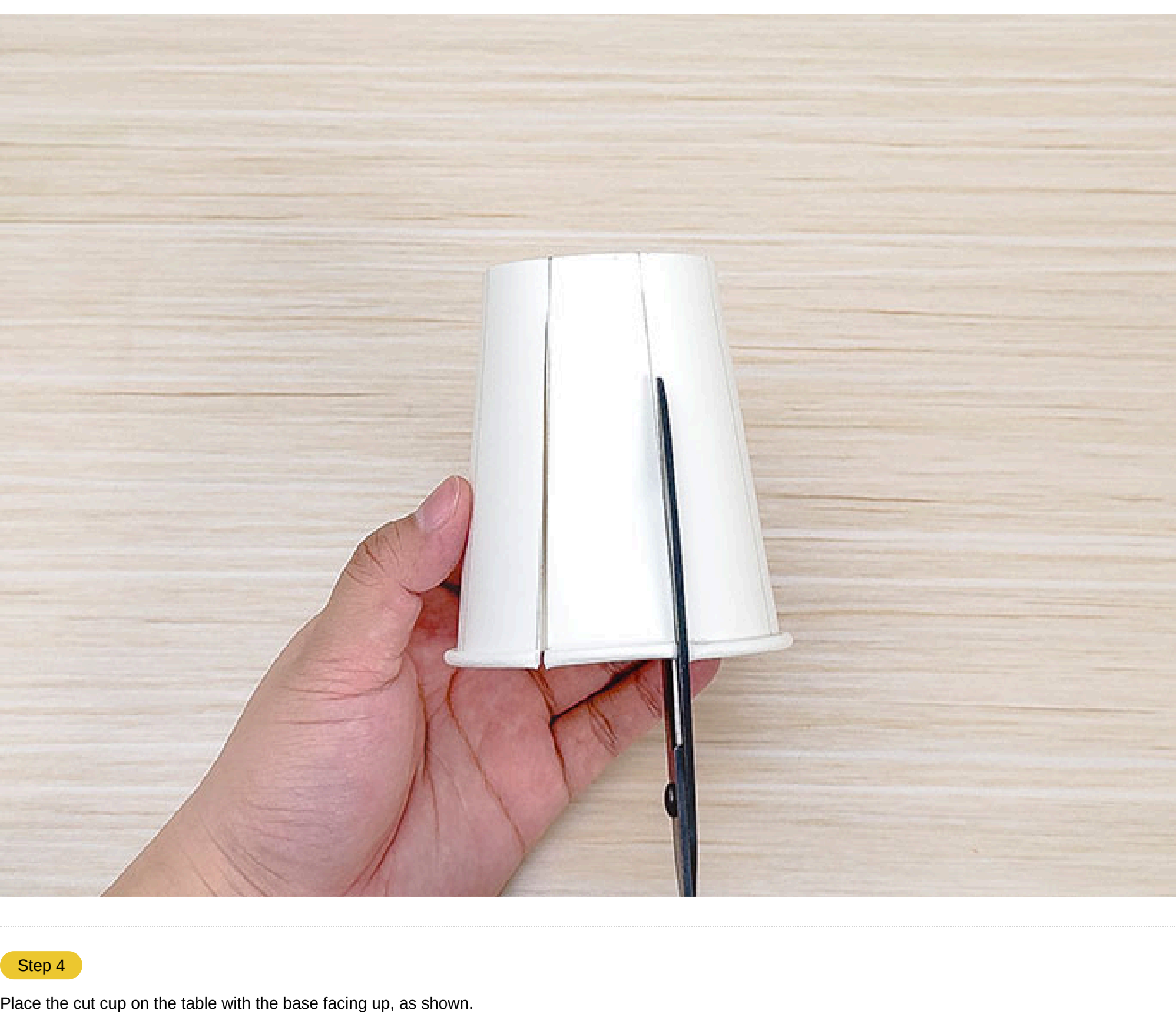
Step 2

Mark 8 points at the ends of the lines, then draw 8 vertical guide lines down from these points, perpendicular to the cup's rim.



Step 3

Using scissors, cut along the guide lines on the cup's sides. Leave 0.5cm uncut at the bottom of the cup.



Step 4

Place the cut cup on the table with the base facing up, as shown.



Step 5

Use marker pens to colour the cup in your favourite colours.



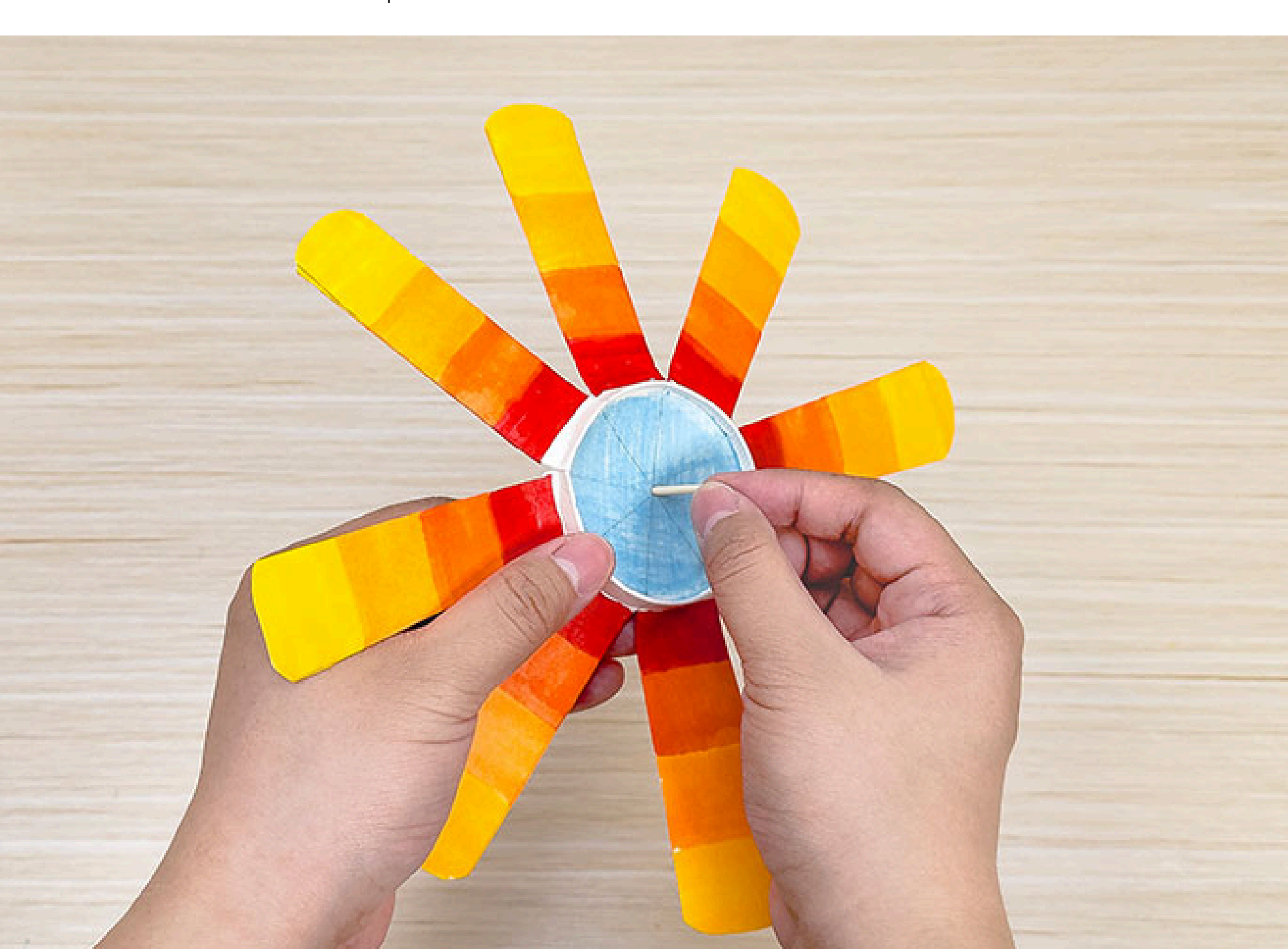
Step 6

Cut a cotton bud to 3.5cm length.



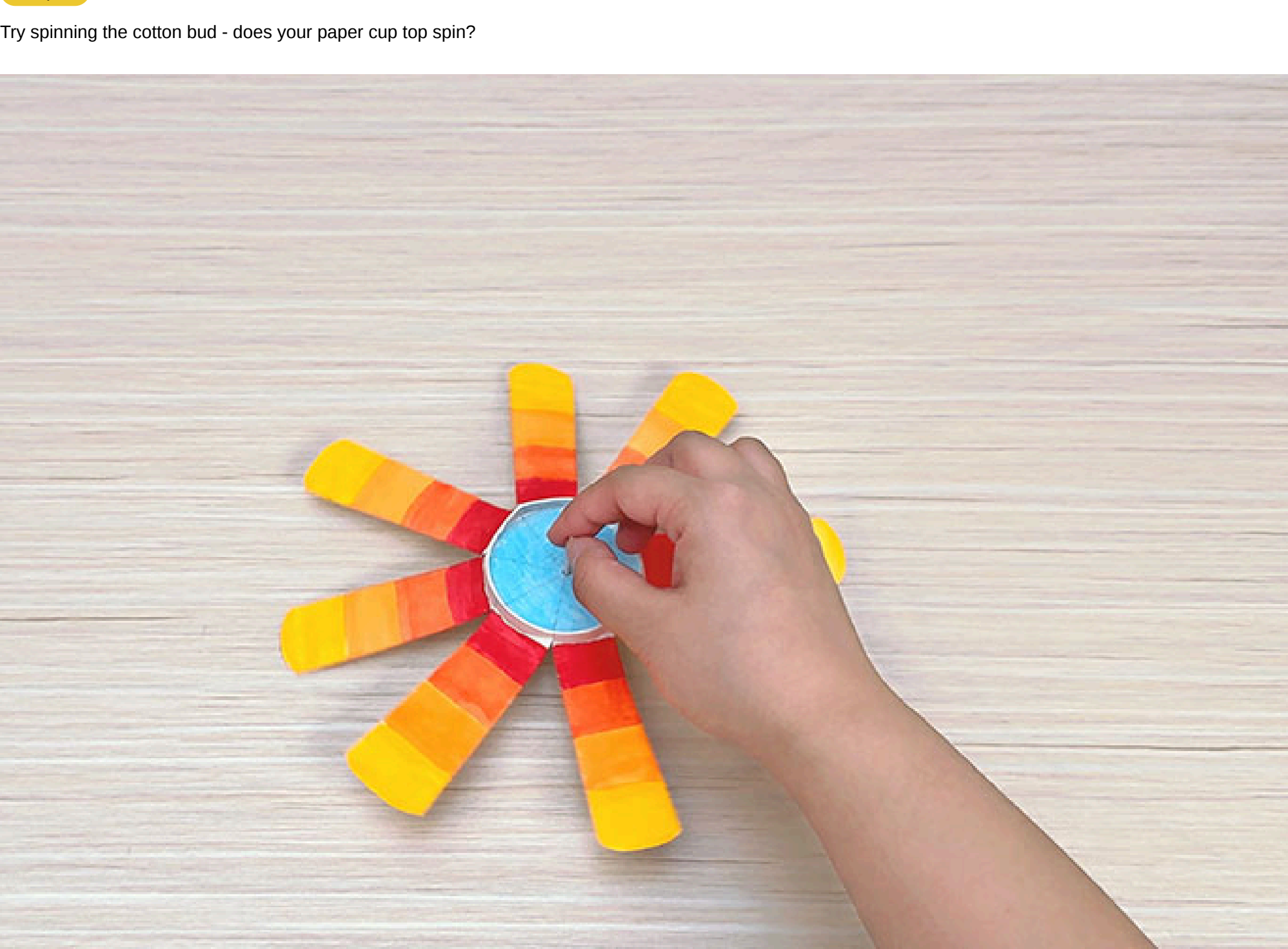
Step 7

Insert the cut cotton bud into the centre of the cup's base.



Step 8

Try spinning the cotton bud - does your paper cup top spin?



The Science Behind It:

A spinning top's stability refers to its ability to maintain its position in space without falling or wobbling. As long as an object spins fast enough, it will remain stable. The spinning speed of an object is called its angular momentum. The greater the angular momentum, the more stable the object becomes and the less likely it is to fall or wobble.

Try adjusting the spinning speed or centre of gravity of your top - what changes do you observe?