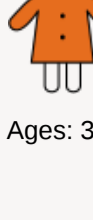


★★★★★

Hidden Letters

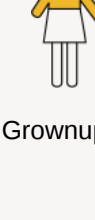
Stem Activities



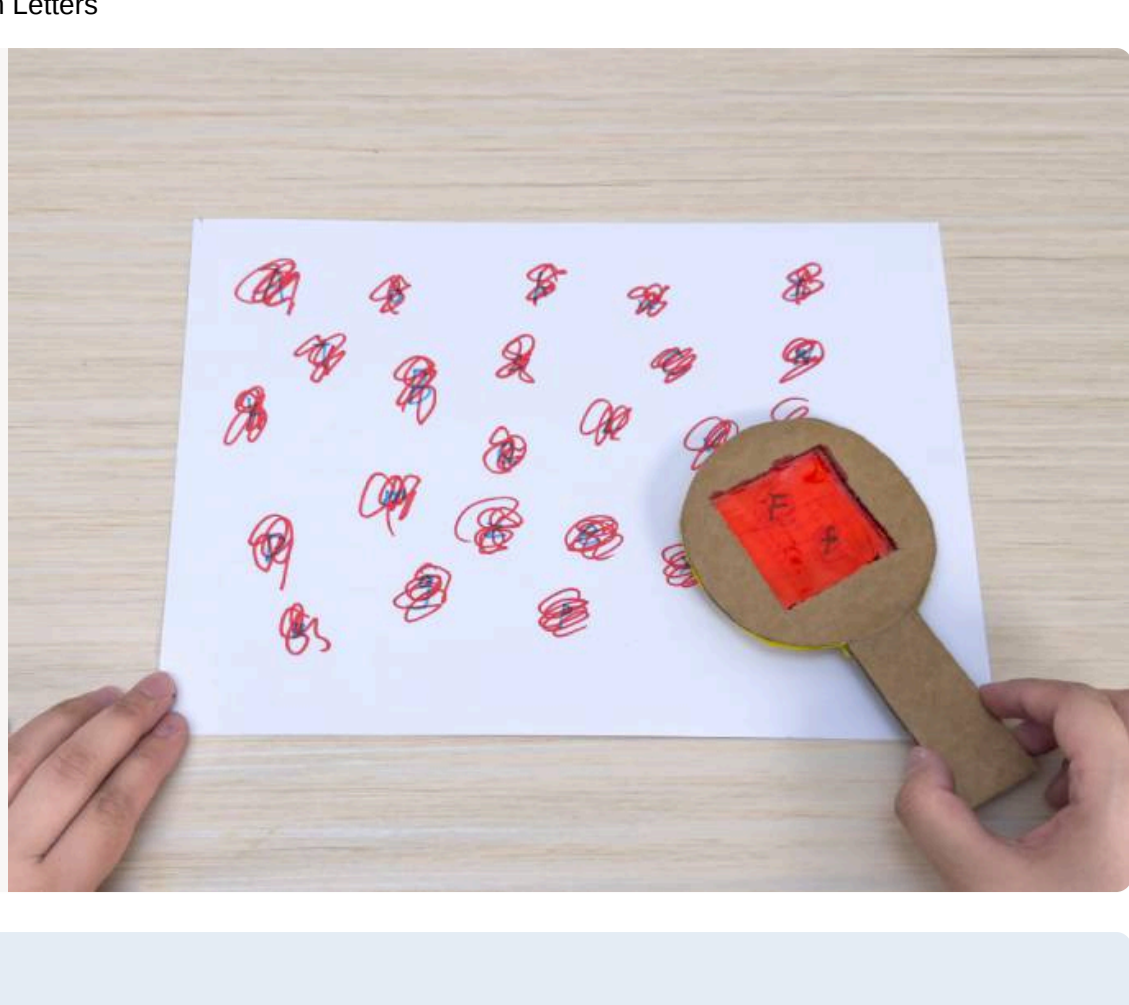
Ages: 3-5



30 minutes



Grownup needed



Here's a fantastic way to help young children learn letters! It makes learning the alphabet as fun as a game while incorporating STEAM scientific knowledge, sparking young scientists' curiosity and desire to explore.

Materials Needed

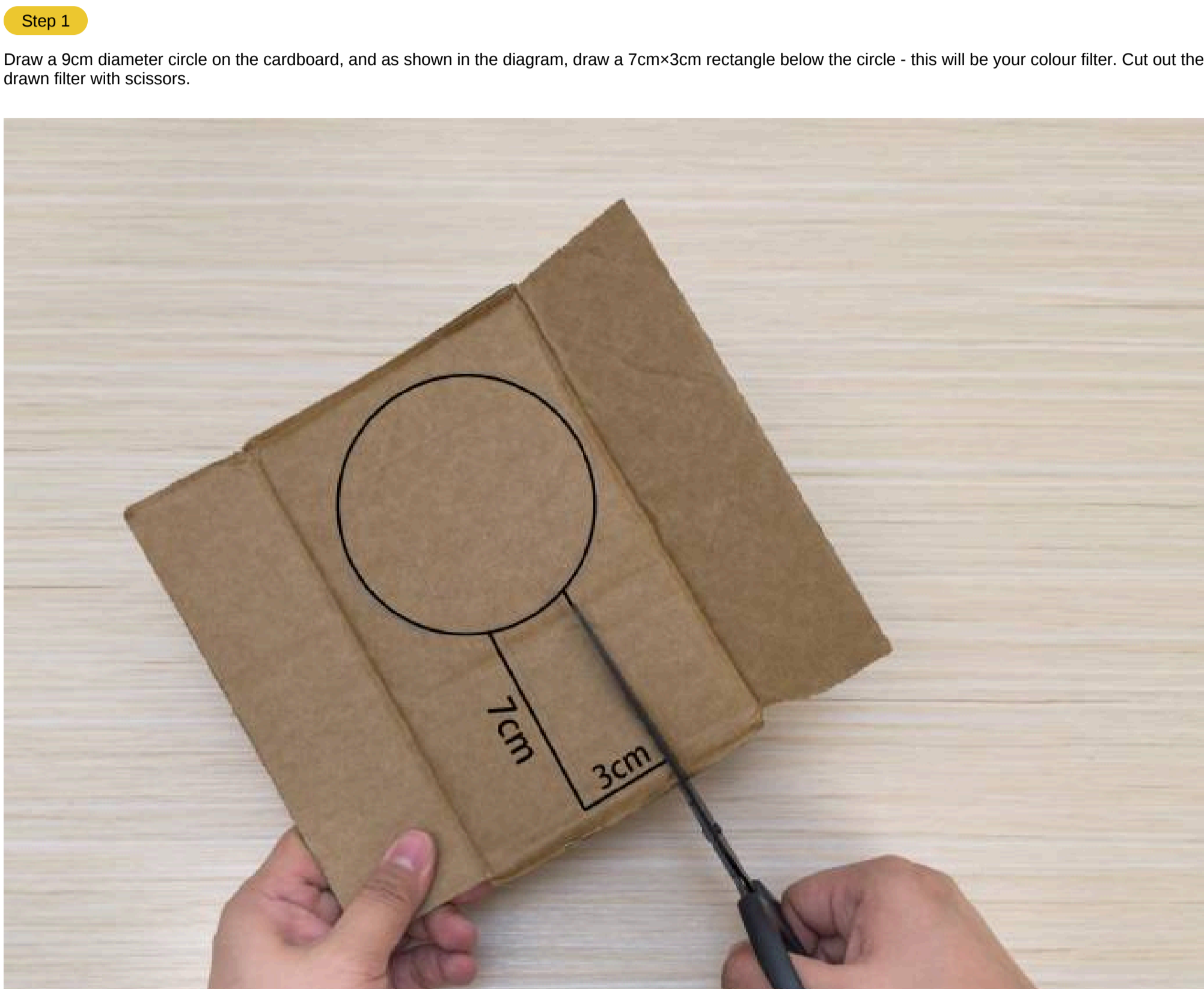
Cardboard
White paper
Scissors
Ruler
Tape
Pencil
Red
Yellow and blue markers
Resealable plastic bag



Step-by-step tutorial

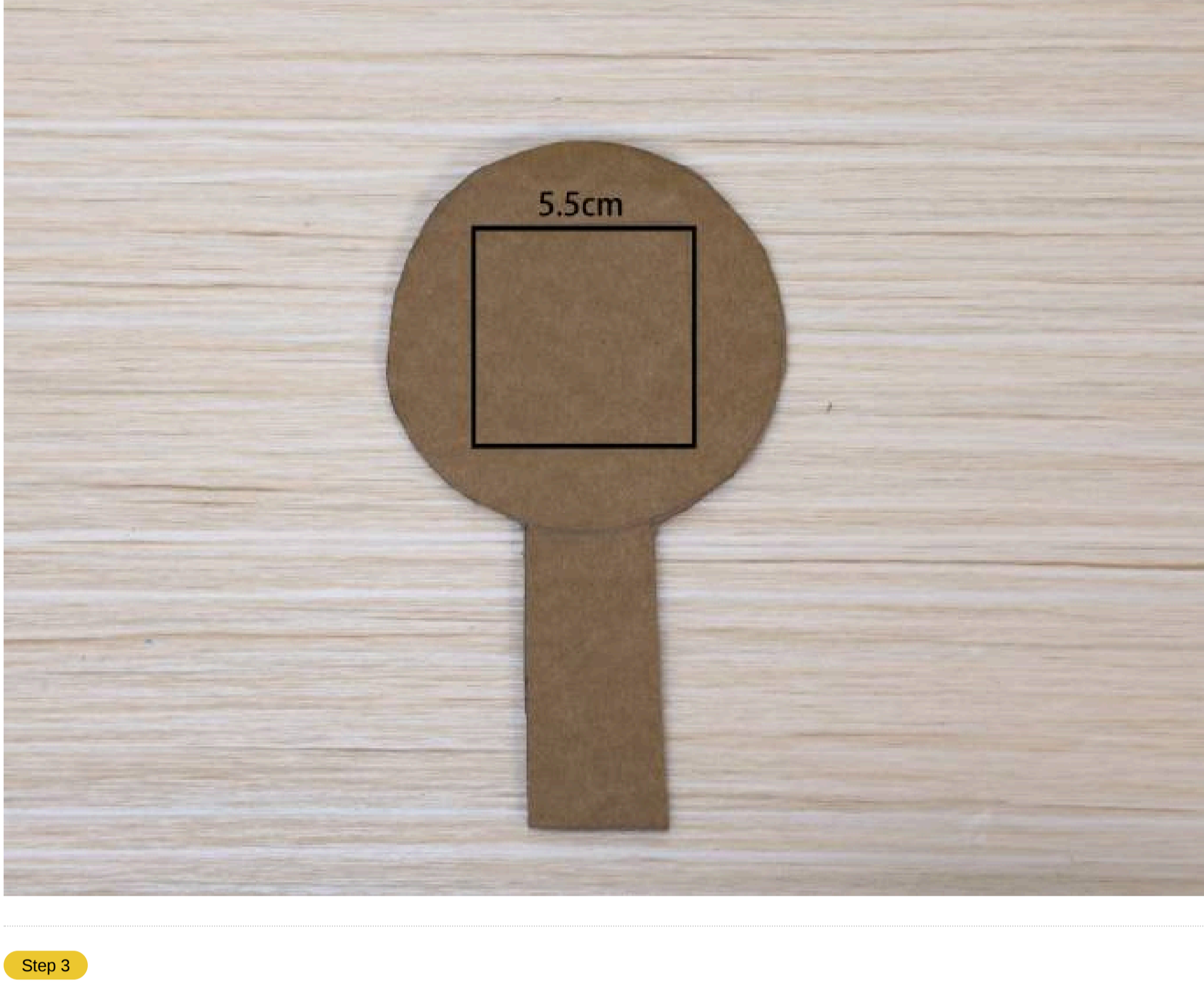
Step 1

Draw a 9cm diameter circle on the cardboard, and as shown in the diagram, draw a 7cmx3cm rectangle below the circle - this will be your colour filter. Cut out the drawn filter with scissors.



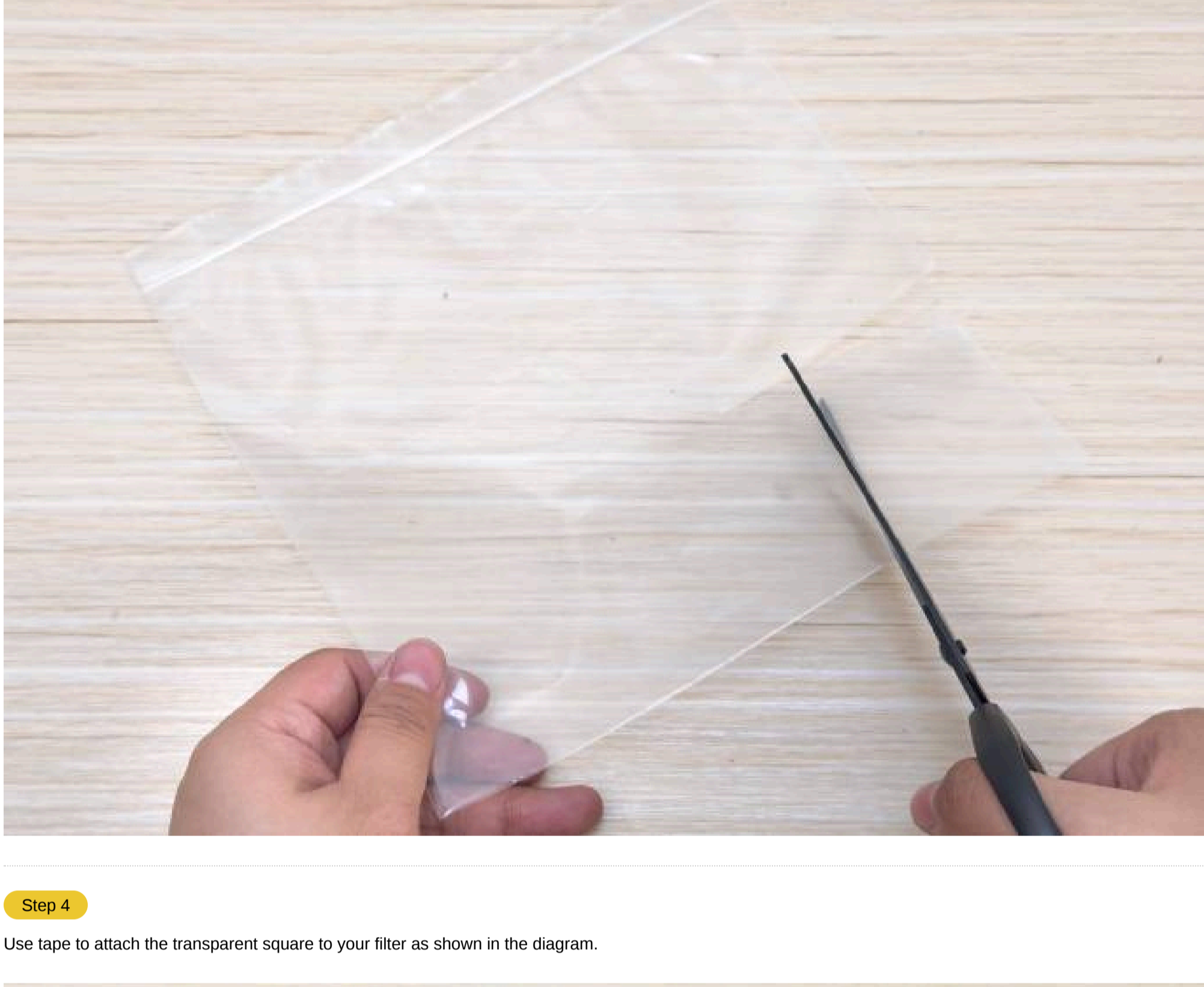
Step 2

Draw a 5.5cm square in the middle of your cut-out filter, then carefully cut out the square. Take care not to hurt yourself.



Step 3

Take your plastic bag, use a ruler and pencil to draw a 6cm square, then cut it out with scissors.



Step 4

Use tape to attach the transparent square to your filter as shown in the diagram.



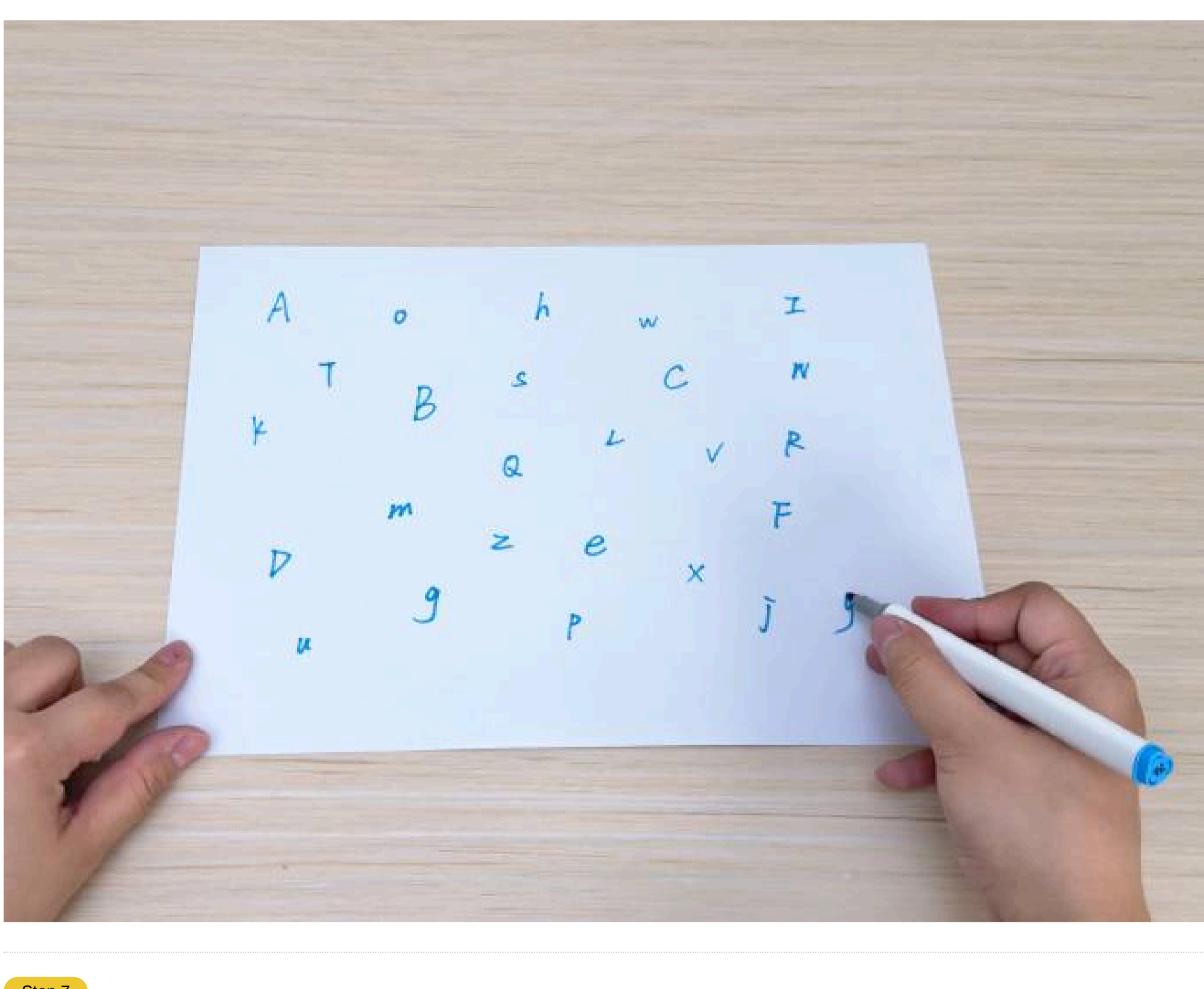
Step 5

Now use your red marker to colour the filter lens!



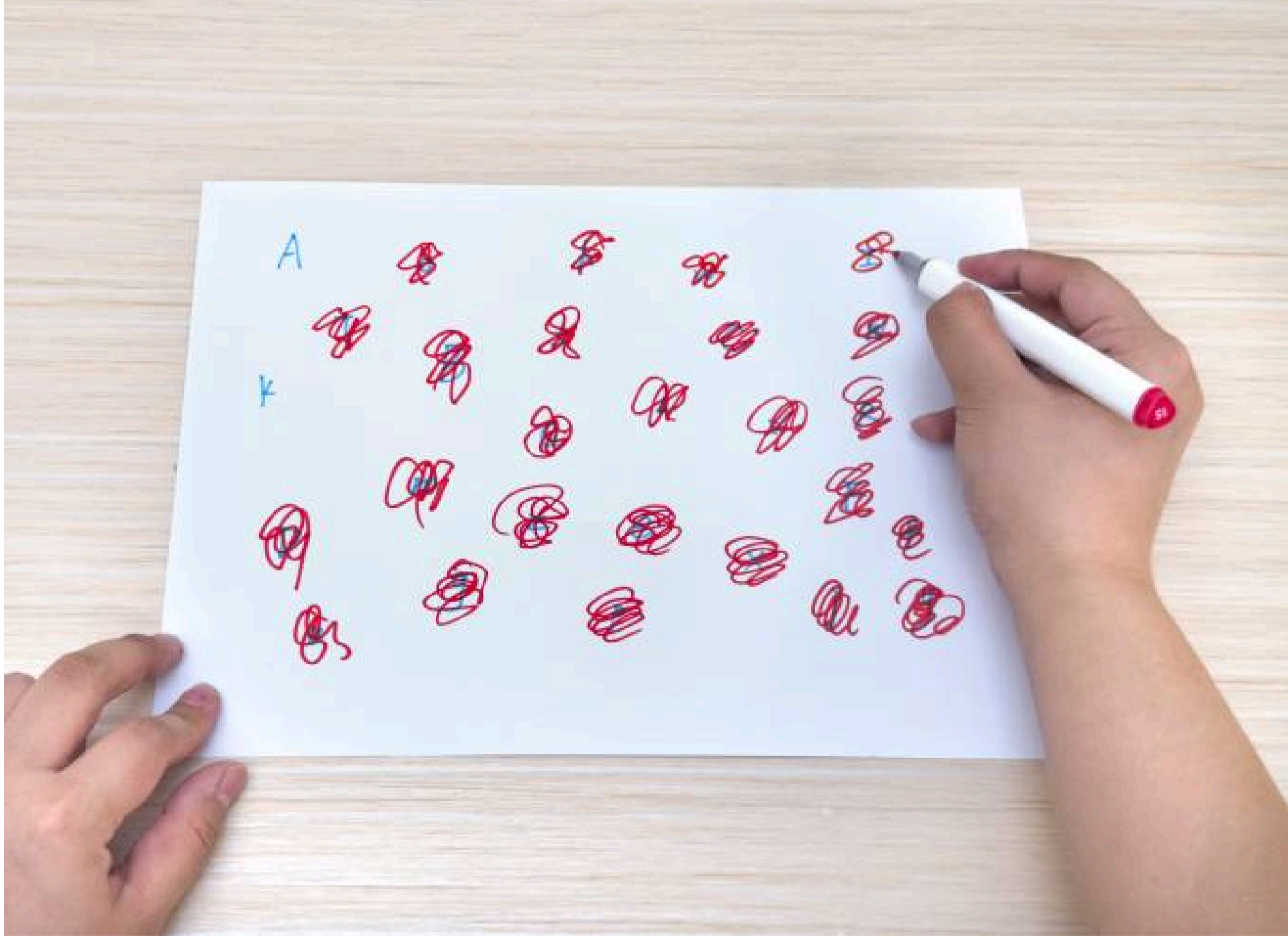
Step 6

Write different letters on the white paper using the blue marker.



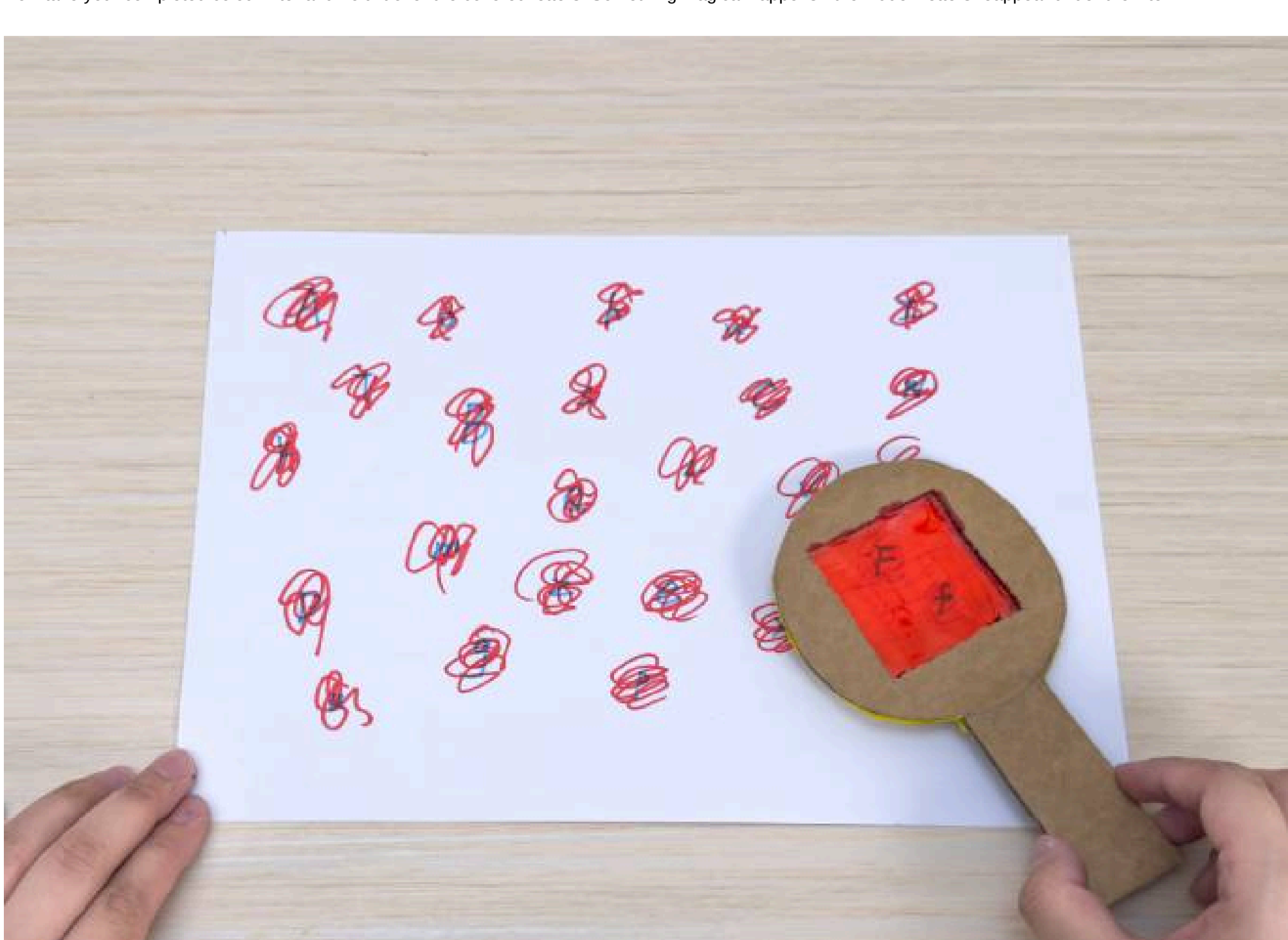
Step 7

Then cover the blue letters with the red marker.



Step 8

Now take your completed colour filter and hold it over the covered letters. Something magical happens - the hidden letters reappear under the filter!



The Science Behind It:

The colour filter works by filtering out red light, reducing interference from the red background, making other coloured text appear more vivid and clear. This makes it easier to see what's beneath the red covering.

Think about it - how would you make colour filters in different colours?