

SCIENCE QUTSAV[®]
Science is awesome

AMES ROOM



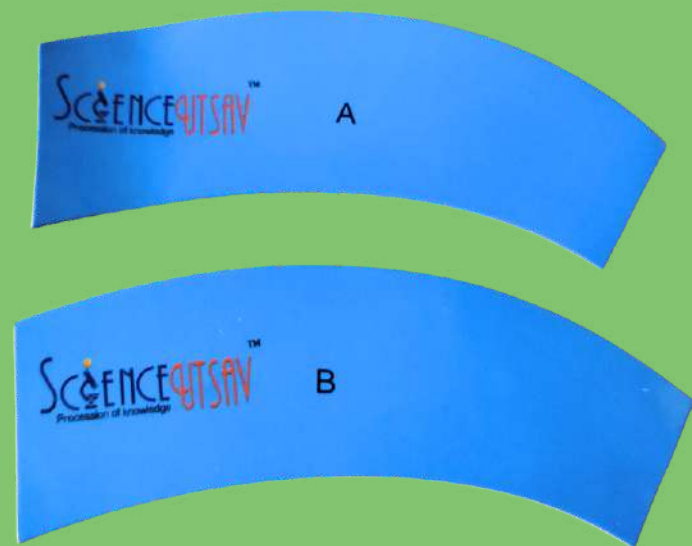
1



2



4



3



Materials Required

Sr.No	Name	Qty
1	Template	1
2	Ball	1
3	Smile Template	1
4	Arc Template	1

CONTENTS

1.OVERVIEW

2.ENGINEERING CHALLENGE

3.MATERIALS REQUIRED

4.PROCEDURE

5.HOW IT WORKS

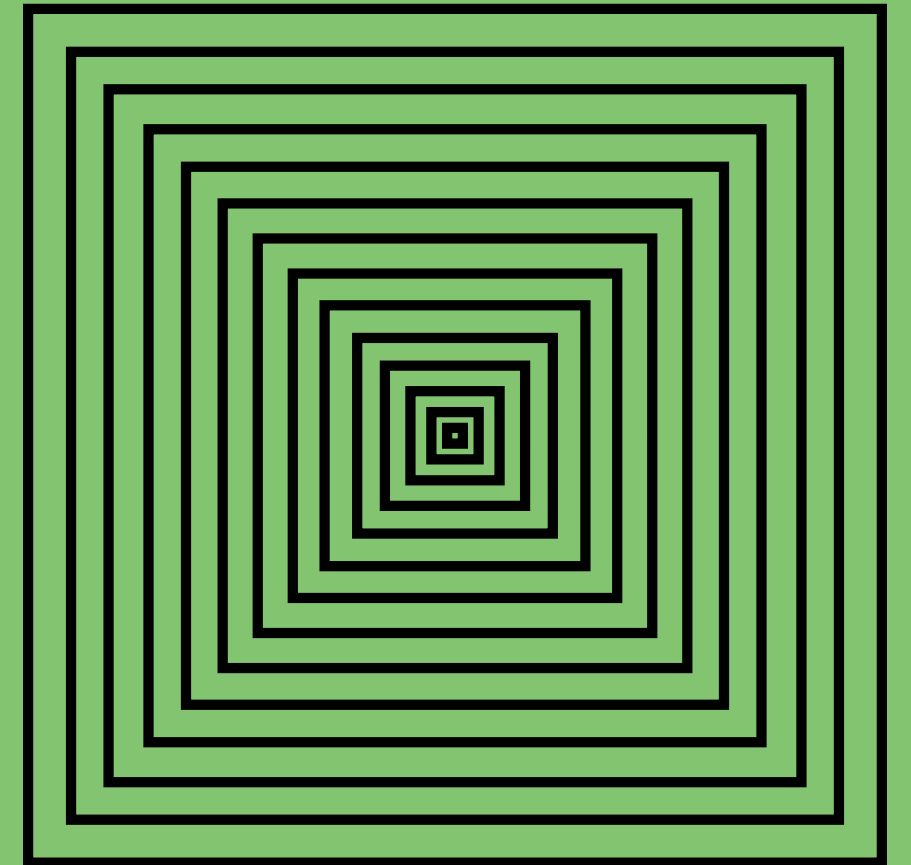
Overview

Explore the fascinating Ames Room experiment! This optical illusion uses clever angles and dimensions to create the appearance of people changing size. Discover the secrets of perception and geometry in this mind-bending adventure!



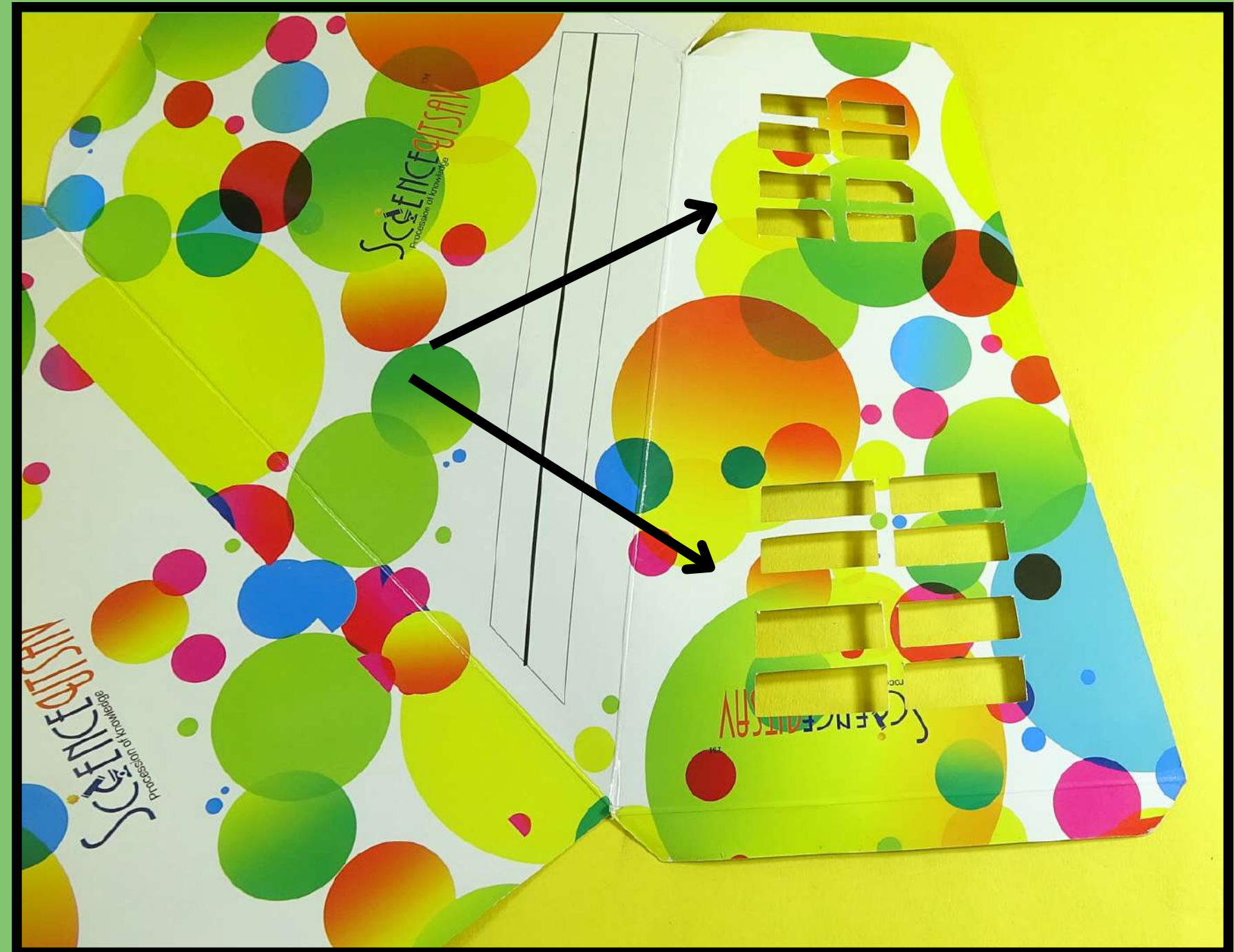
Engineering challenge

Design an Ames Room! Use precise angles and dimensions to craft a room where size perception is altered. Experiment with shapes for optical illusion mastery. Unleash your creativity in this mind-bending engineering adventure



Procedure

Take off the cut block from the template to match the image, as indicated by the arrow mark.



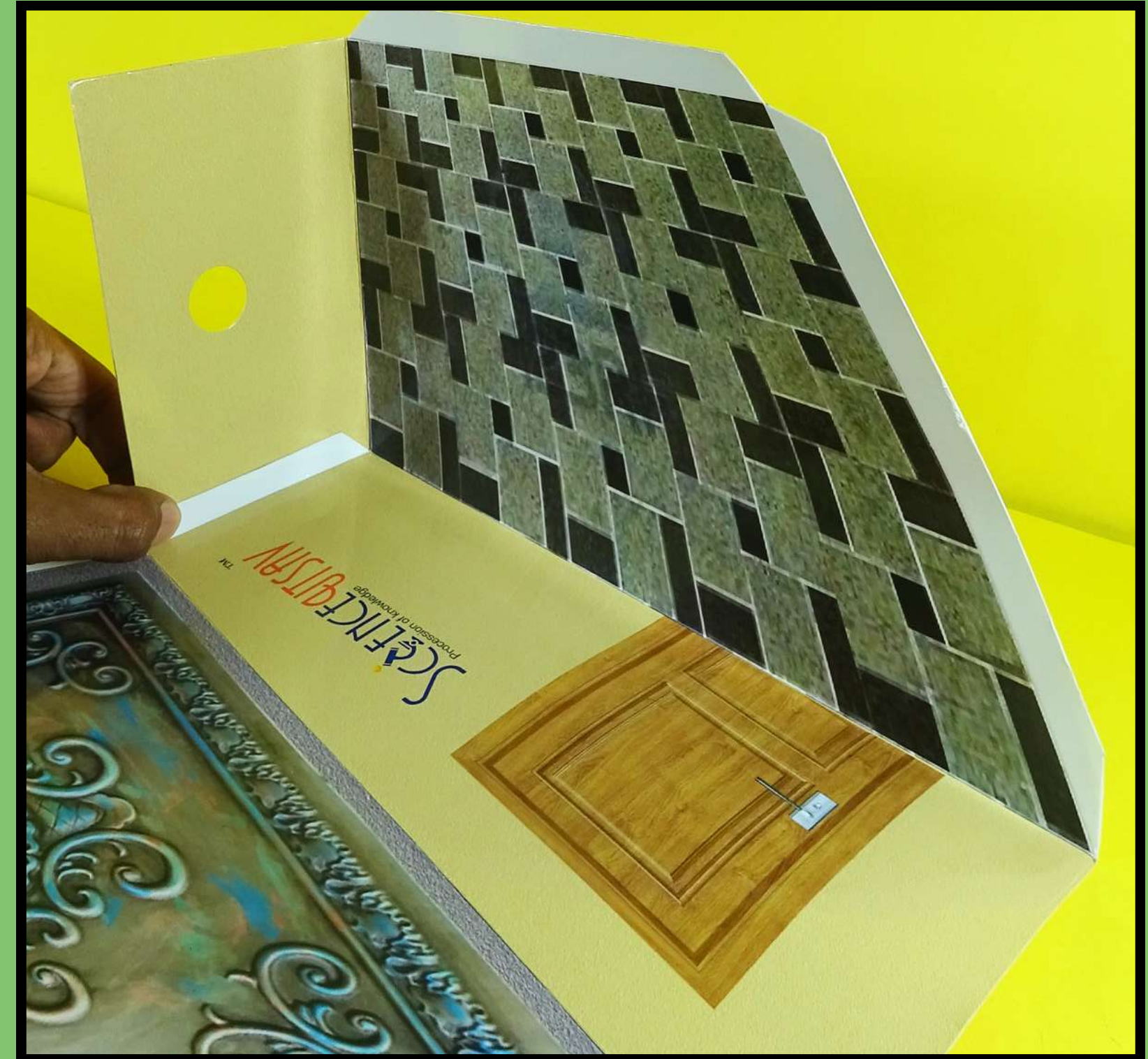
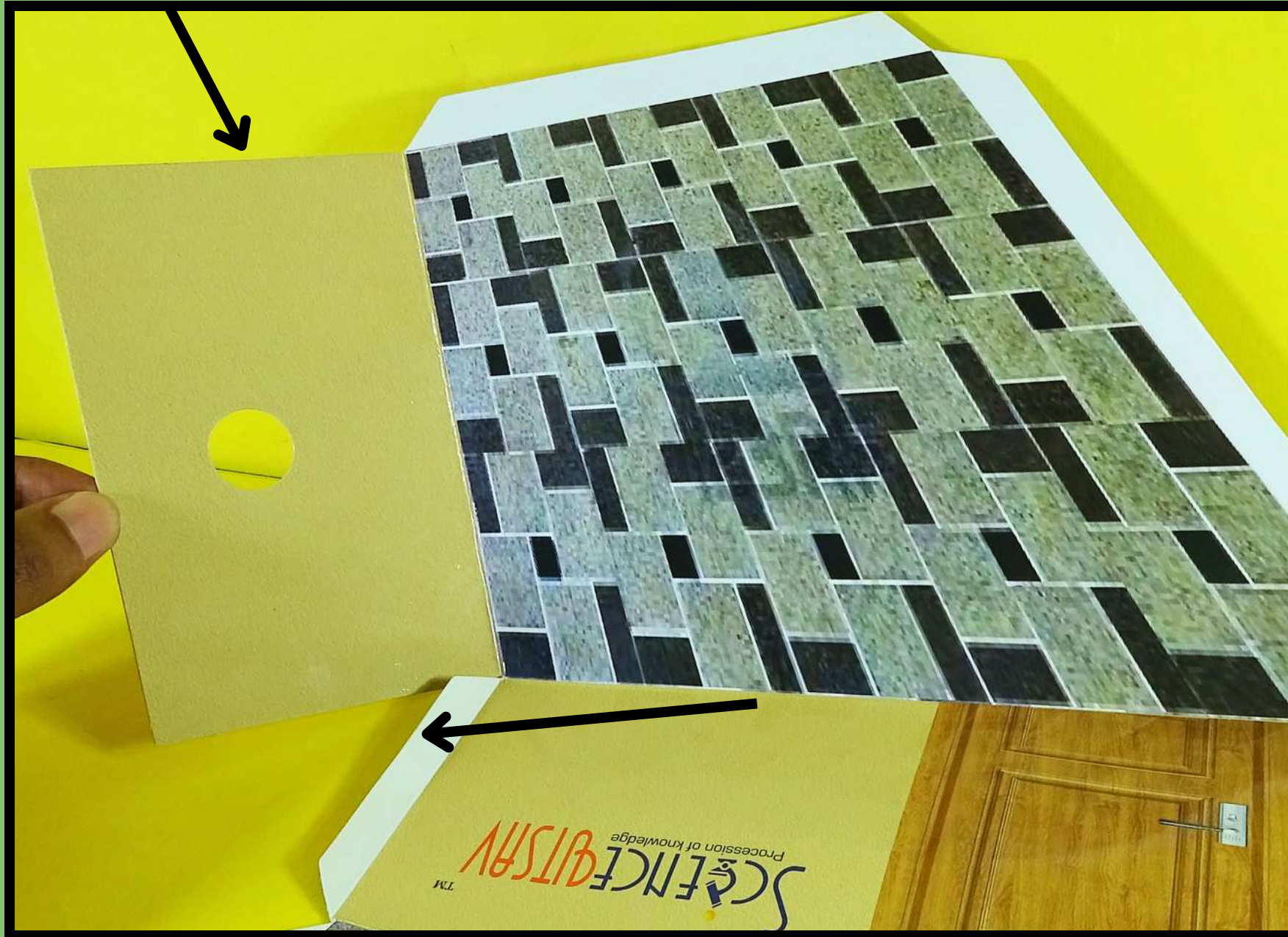
Apply cello tape along the black line as shown



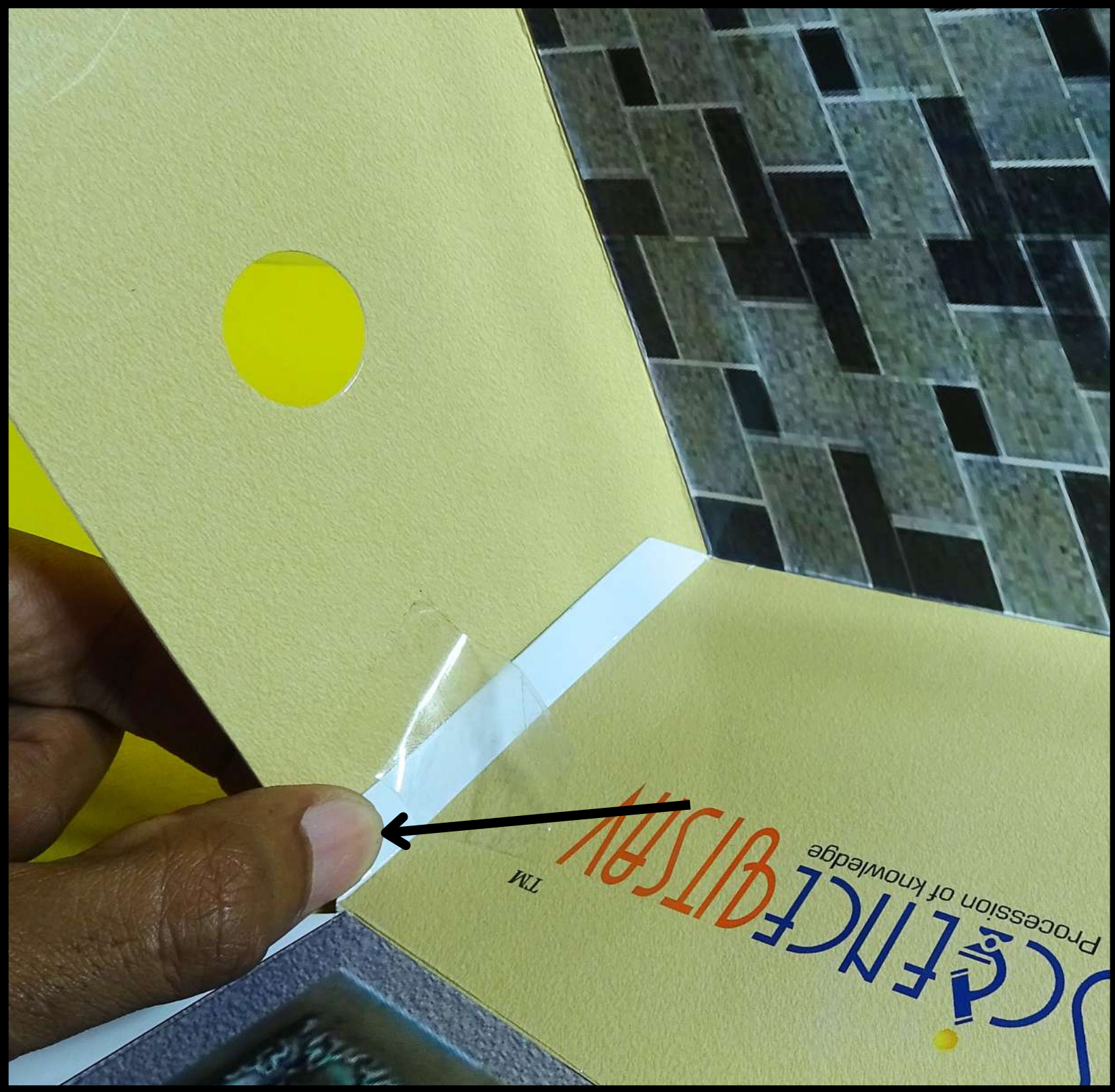
Cut along the black line using a scissor as shown



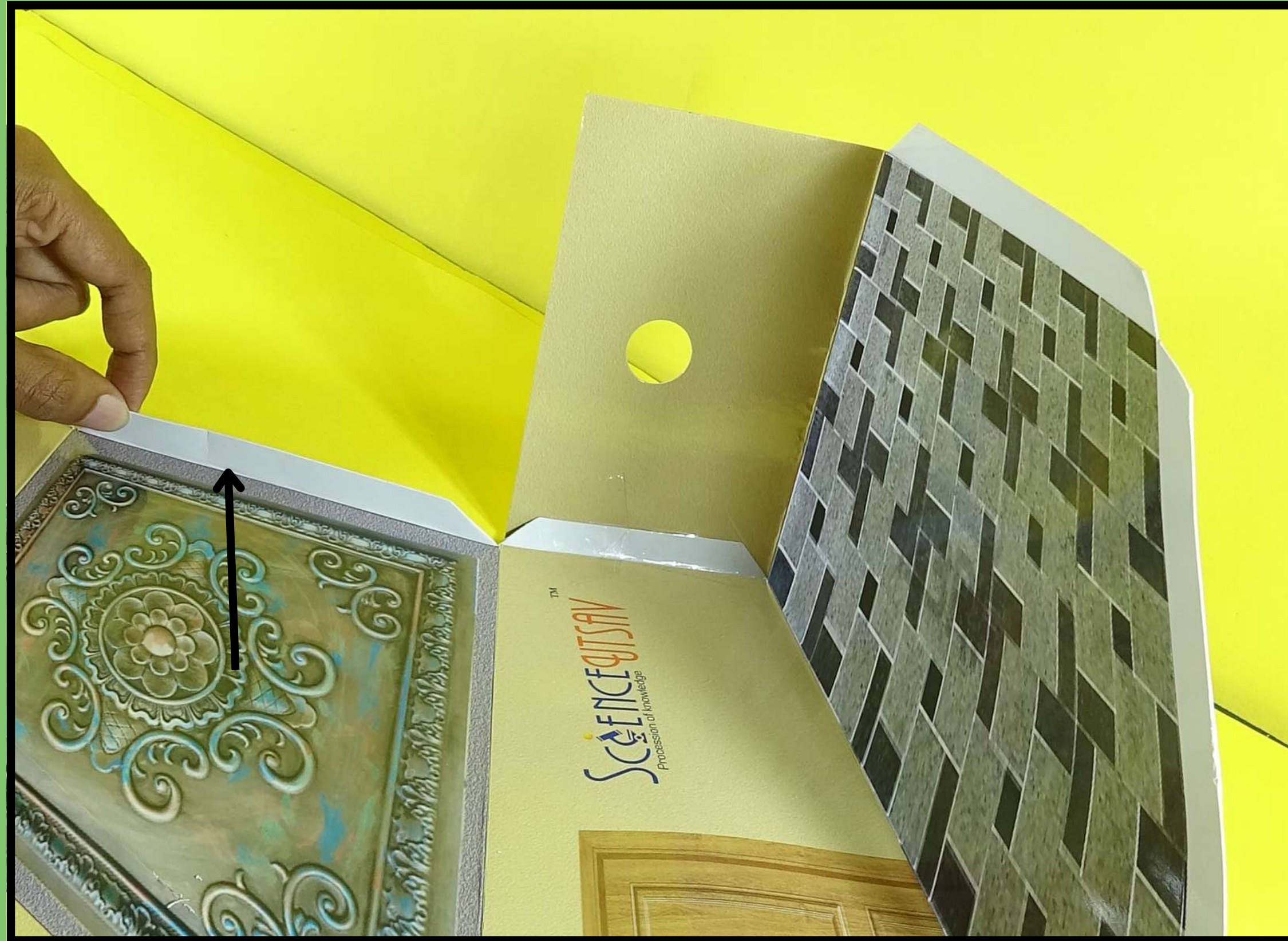
Bend the parts marked with an arrow as demonstrated.



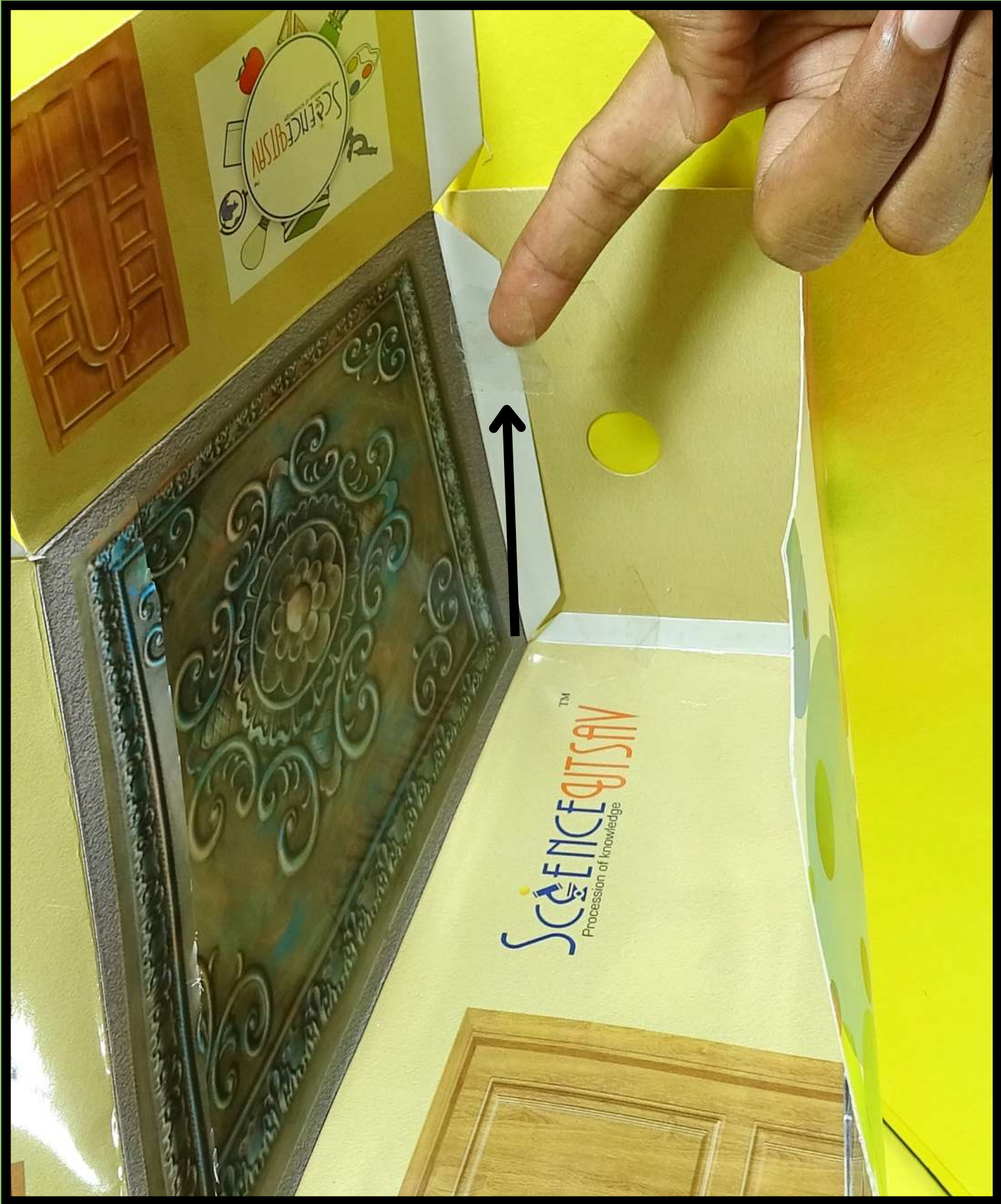
Attach cello tape to the folded parts, following the demonstration.



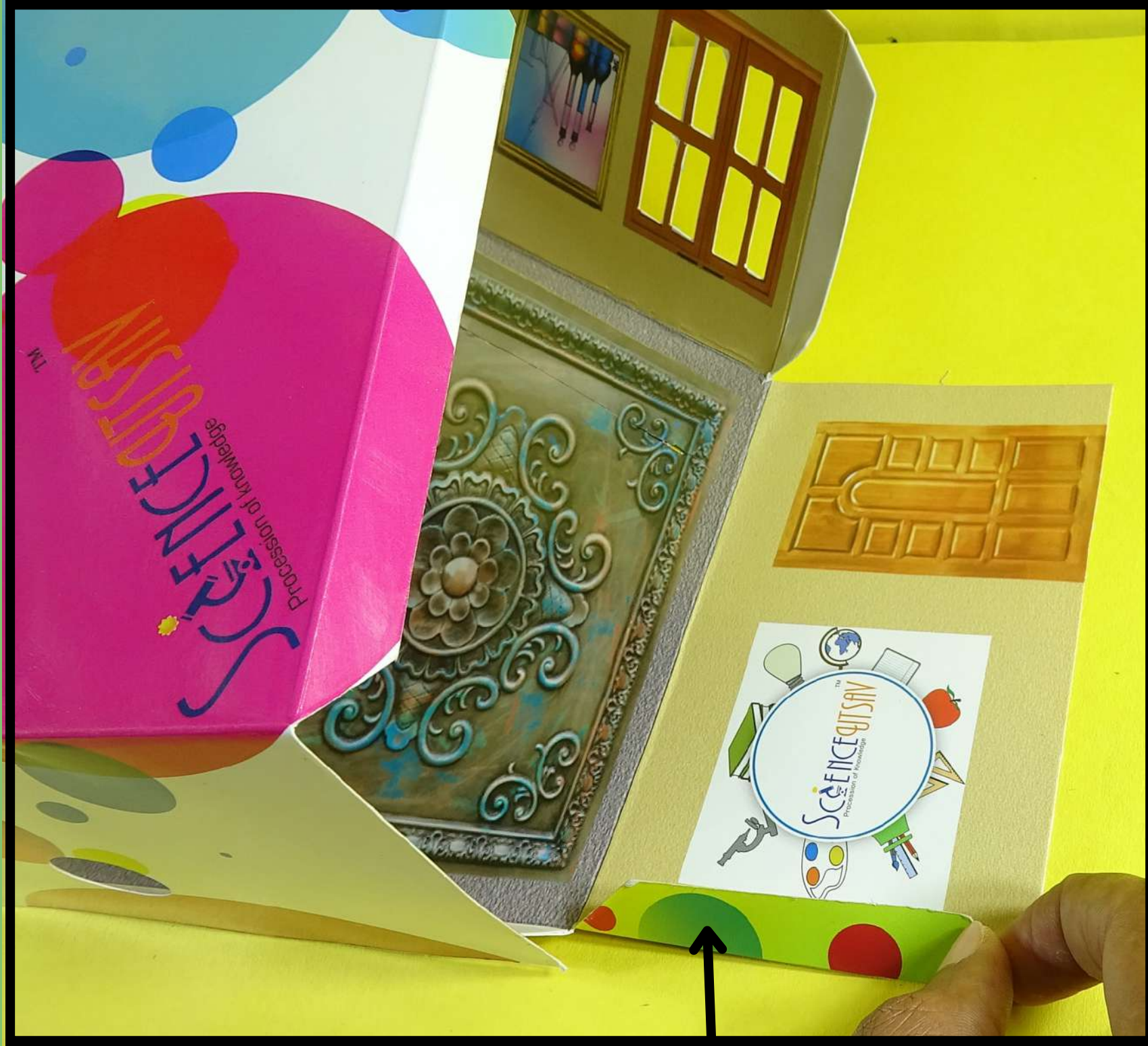
Bend the parts marked with an arrow as demonstrated.



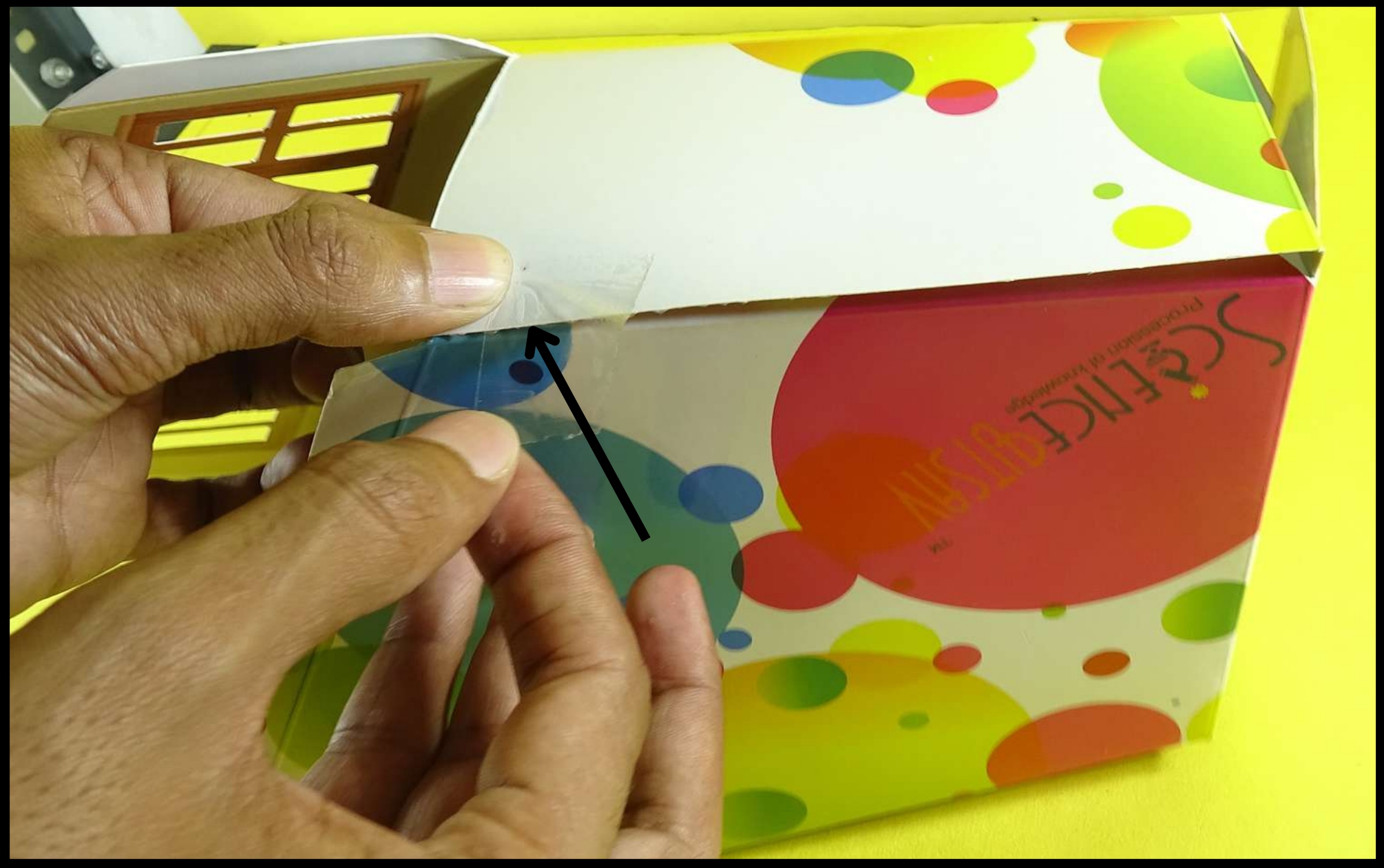
Attach cello tape to the folded parts, following the demonstration.



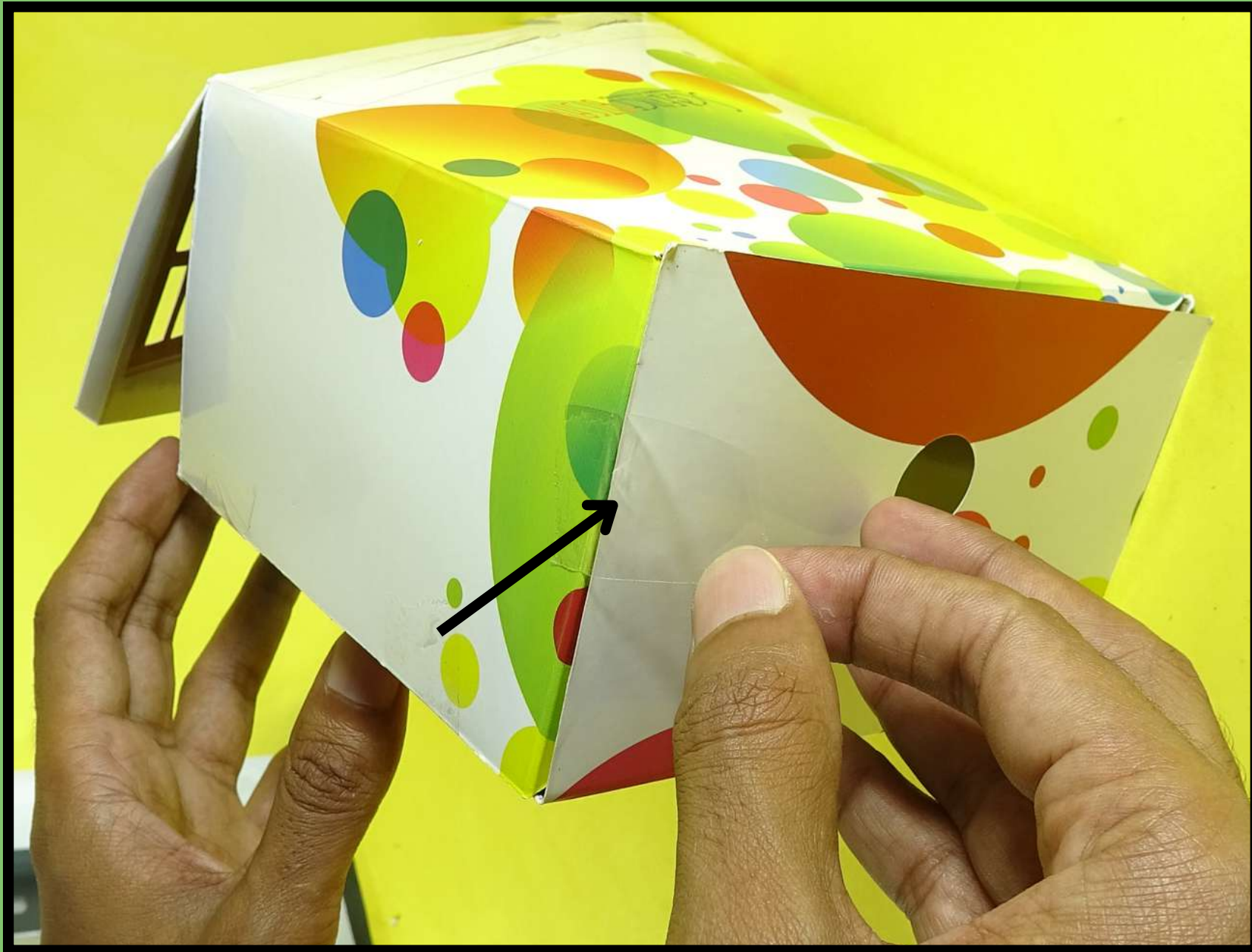
Bend the parts marked with an arrow as demonstrated.



Attach cello tape to the folded parts, following the demonstration.



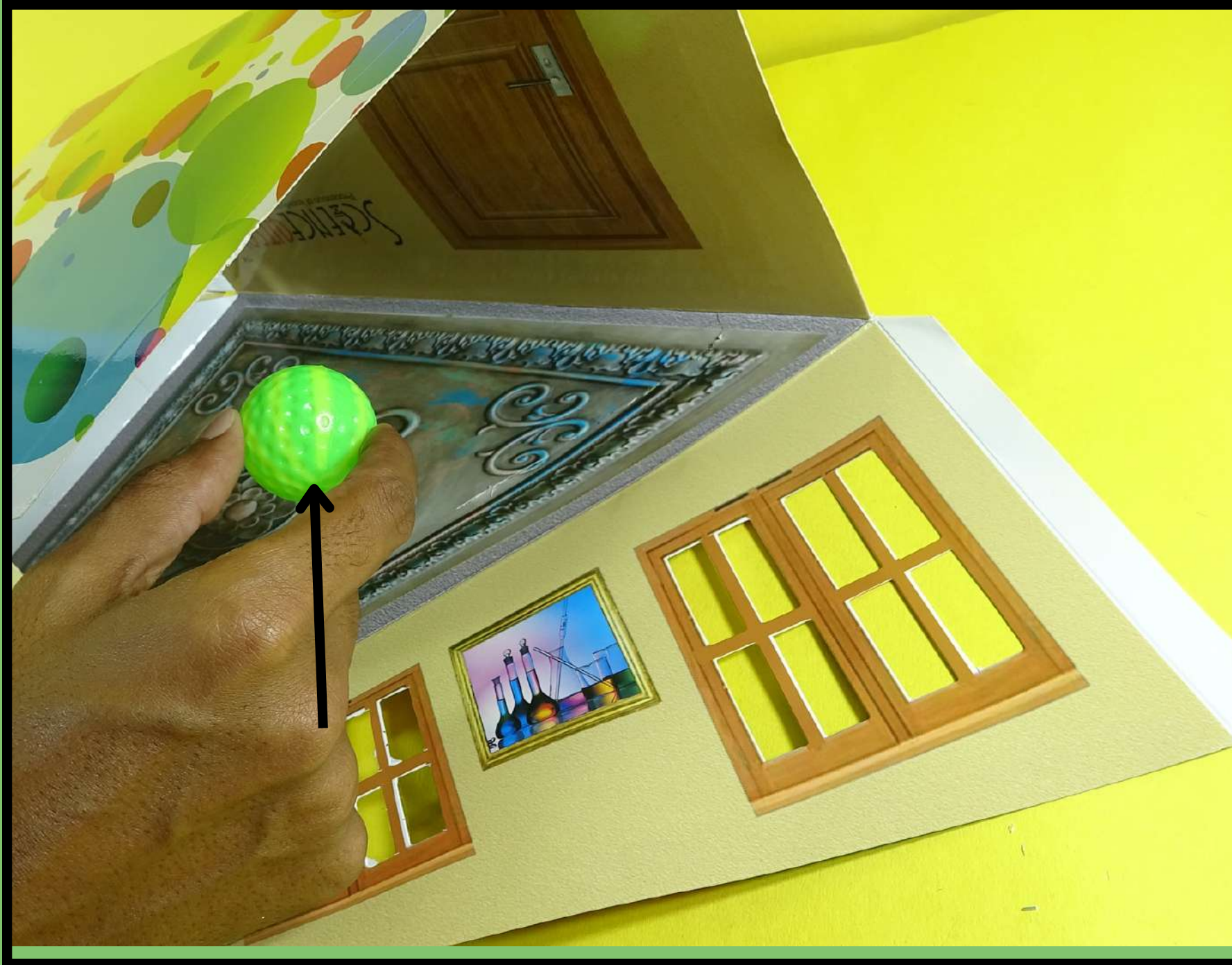
Attach cello tape to the folded parts, following the demonstration.



After adding cello tape in the previous step, the final result should resemble the image shown



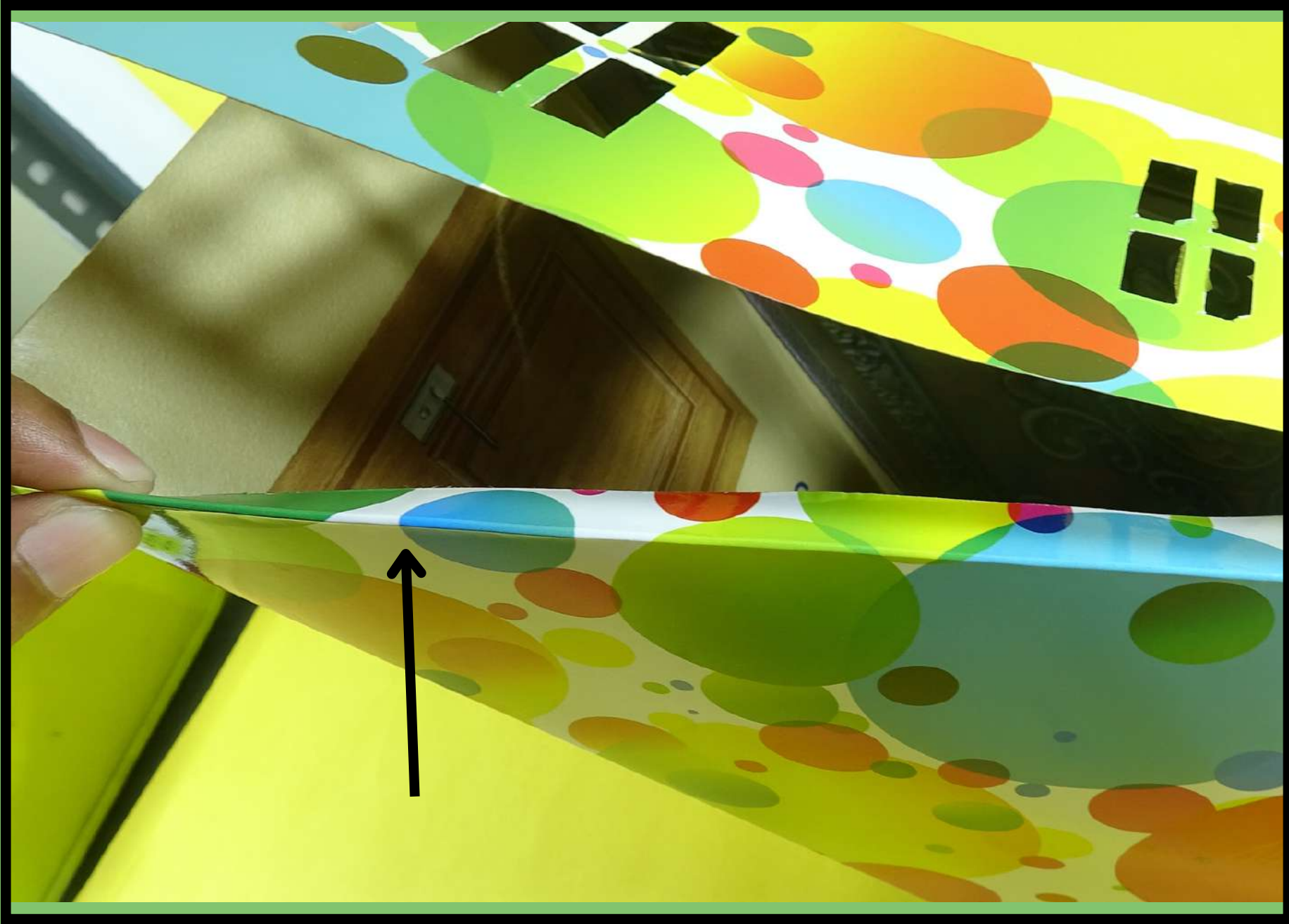
Place the ball inside the box as shown



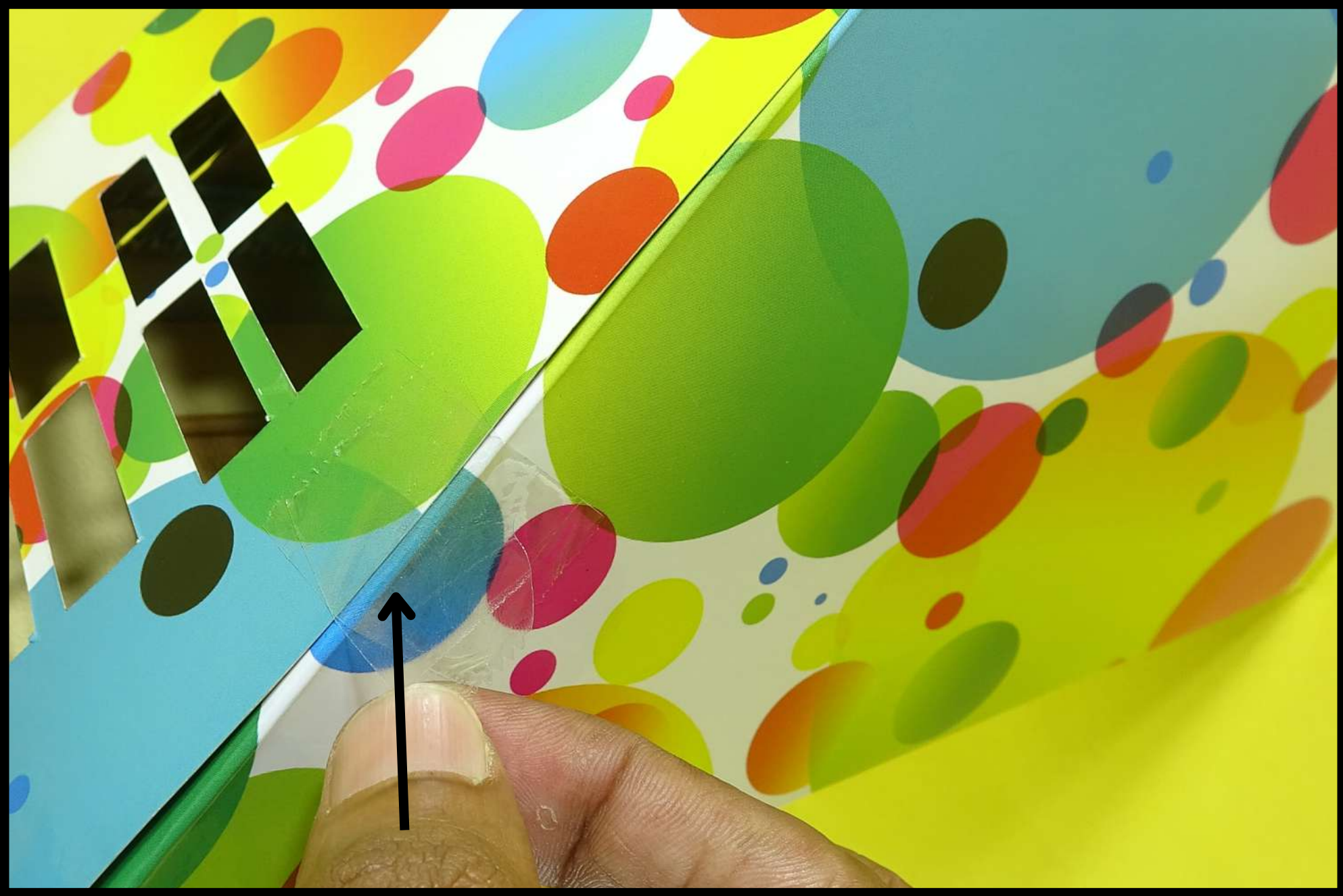
Bend the parts marked with an arrow as demonstrated.



**Bend the parts marked with an arrow
close the top part as demonstrated.**



Attach cello tape to the folded parts, following the demonstration.



Bend the smiley template part according to the as shown



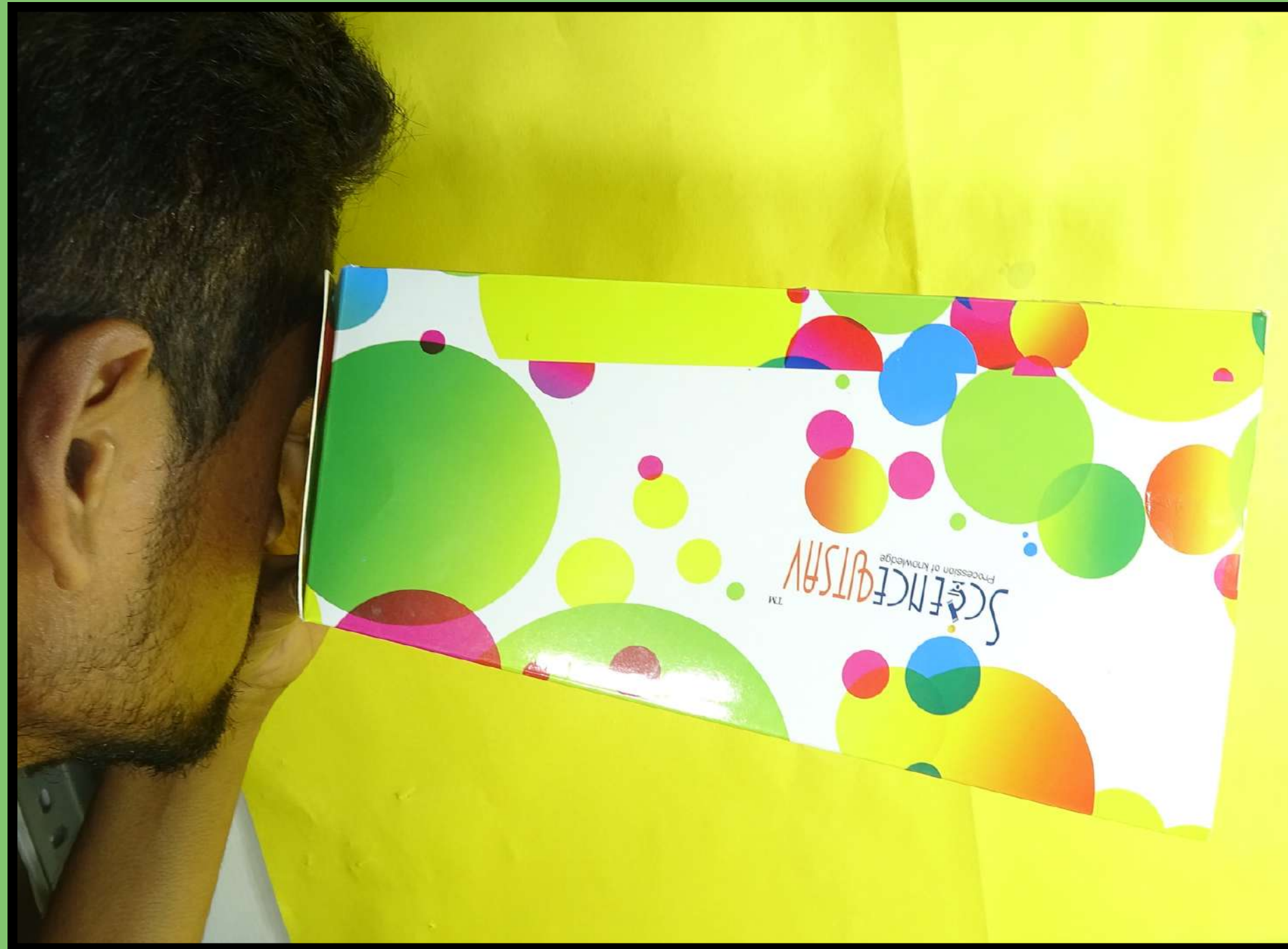
Put the smiley template into the box through the previously cut hole.



YOUR AMES ROOM IS READY



You can observe the illusion effect in the Ames room toy by looking through the hole provided in the box with one eye.



ACTIVITY

By interchanging the arc template in front of your eye, you can observe the illusion effect.



(The words on both arc templates are in the same font. But when you switch them in front of your eyes at the same time, you'll see an illusion effect.)

HOW IT WORKS?

In an Ames Room, our eyes are tricked by clever design. The room isn't a perfect rectangle; one corner is farther away, making it seem larger. When someone stands there, they appear giant! When a ball rolls from the small corner to the big one, it seems to change size. But it's just our eyes being fooled by the room's shape! It works based on the optical illusion effect. An optical illusion is a visual trick that makes us perceive things differently from how they actually are. It happens when our eyes send misleading information to our brain, creating a false or distorted impression.

