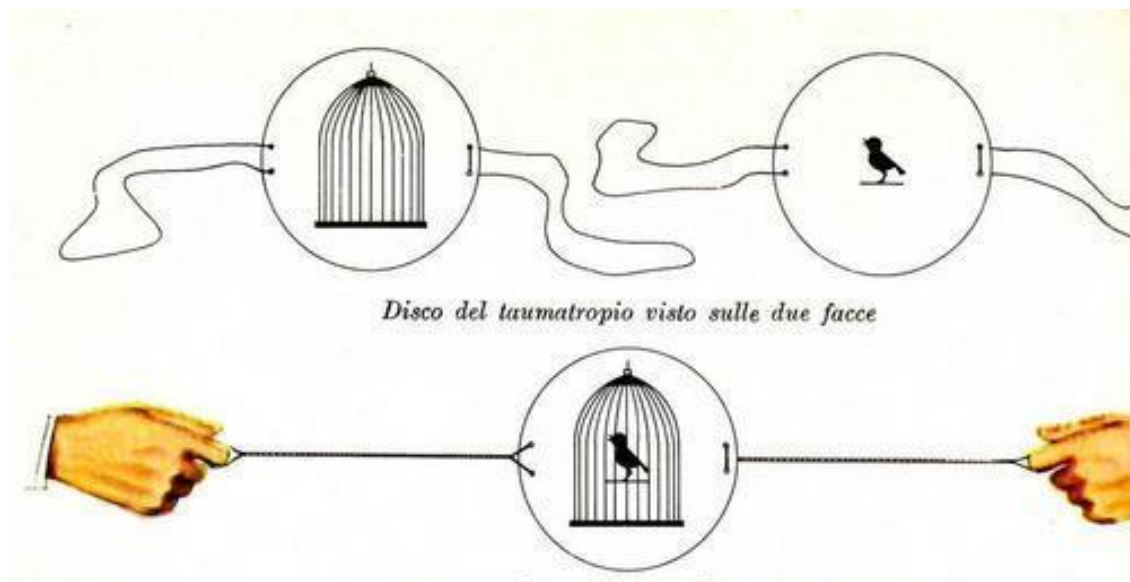


Museum Education Short Project

Make your own Thaumatrope

In 1824 English physician John Ayrton Paris invented the thaumatrope, an optical toy that enjoyed great popularity during the Victorian era. The design of the thaumatrope is simple and consists only of a disc with pictures on both sides, tied to two pieces of string. When the disc is twirled quickly the two pictures blend into a single image.

How does it work? The thaumatrope relies on the persistence of vision principle. In other words, as the thaumatrope spins the series of flashes is perceived by the retina as one continuous image, creating an optical illusion.



Now you try!

Supplies needed:

card stock or construction paper

scissors

hole punch

drawing tools (pencil, pen, markers, crayons, colored pencils, etc.)

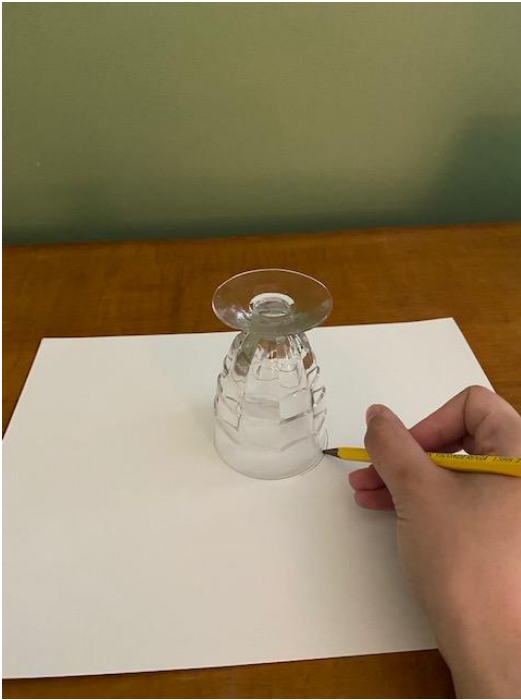
string or rubber bands

circular shape to trace

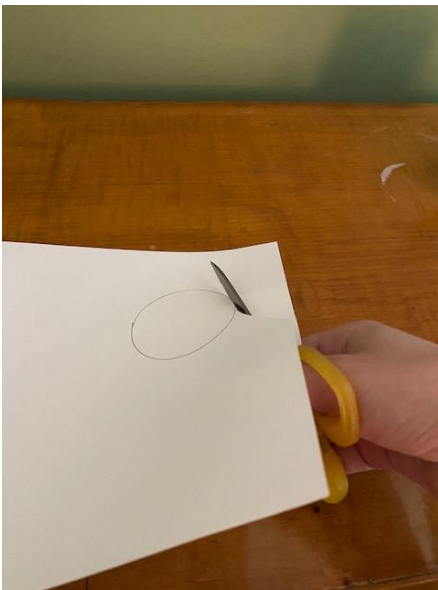


1. Think about what you want to draw on your thaumatrope. Consider drawing images that go together such as a bird and a cage or a goldfish and a bowl.

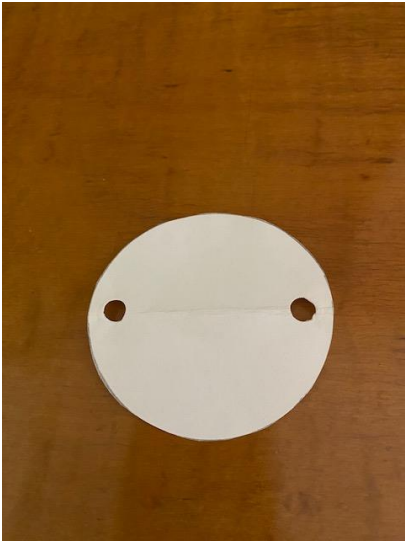
2. Use a circular object to trace a circle on a piece of card stock or construction paper.



3. Cut out the circle.



4. Punch two holes directly across from one another.

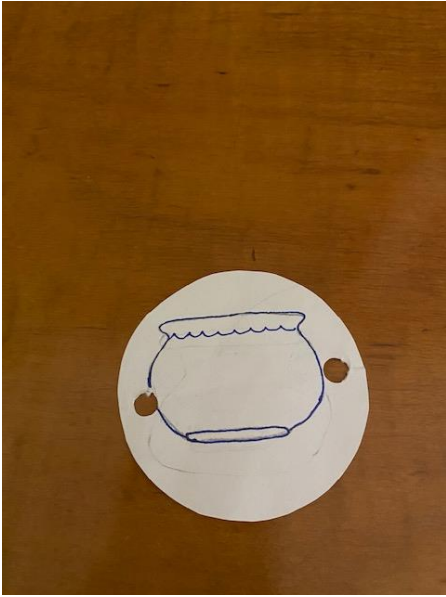


5. Draw an image on one side of the circle.

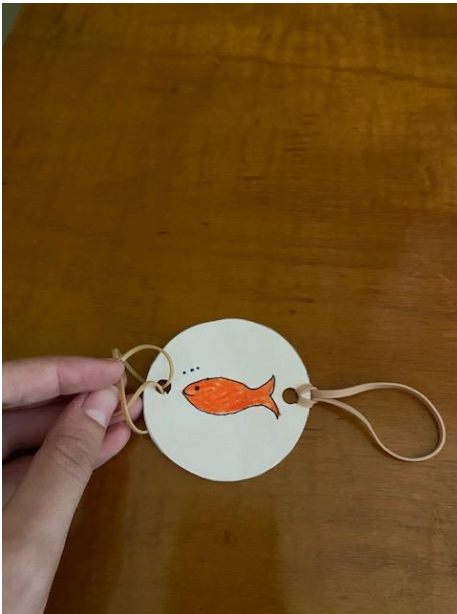


6. Flip the circle over from bottom to top.

7. Draw an image on the reverse side.



8. String a piece of string or rubber band through one of the holes and secure with a knot. Repeat on the other side.



9. Use your fingers to twist the strings/rubber bands tightly to spin the circle back and forth. If you spin the circle fast enough you will be able to see the two drawings merge into a single image!

Sources: <https://www.metmuseum.org/art/online-features/metkids/videos/MetKids-Create-an-Optical-Toy-Thaumatrope>
<http://www.mhs.ox.ac.uk/exhibits/fancy-names-and-fun-toys/thaumatrope/>
[https://cheshirelibraryscience.wordpress.com/tag/persistence-of-vision/#:~:text=The%20Thaumatrope%20\(%E2%80%9CTurning%20Marvel%E2%80%9D,for%201%2F20%20of%20a](https://cheshirelibraryscience.wordpress.com/tag/persistence-of-vision/#:~:text=The%20Thaumatrope%20(%E2%80%9CTurning%20Marvel%E2%80%9D,for%201%2F20%20of%20a)