

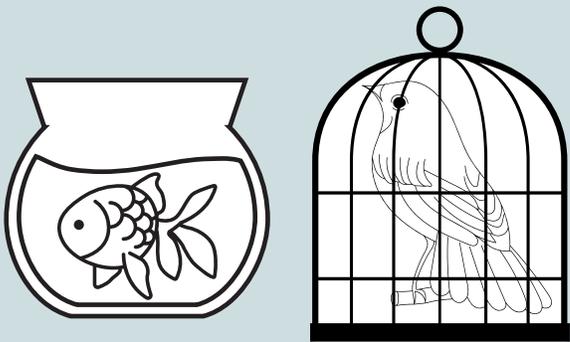
MAKE YOUR OWN

# THAUMATROPE

## You will need:

- Scissors
- Pencil crayons or crayons
- A hole punch or other hole-poking tool
- String

If you twist the string on each side between your fingers, you should be able to see something like this:

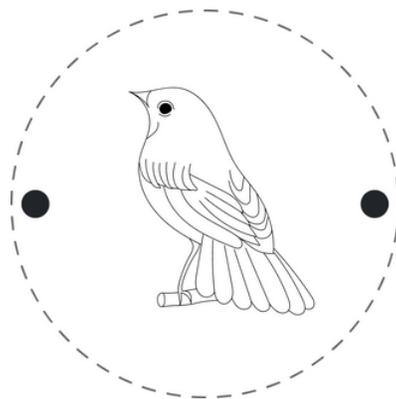
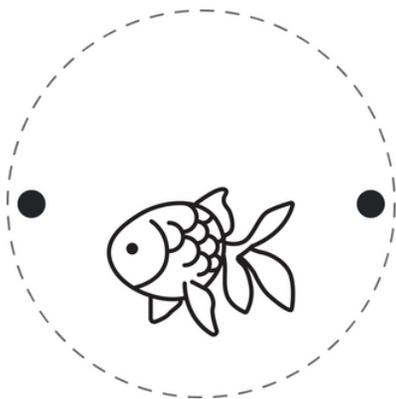
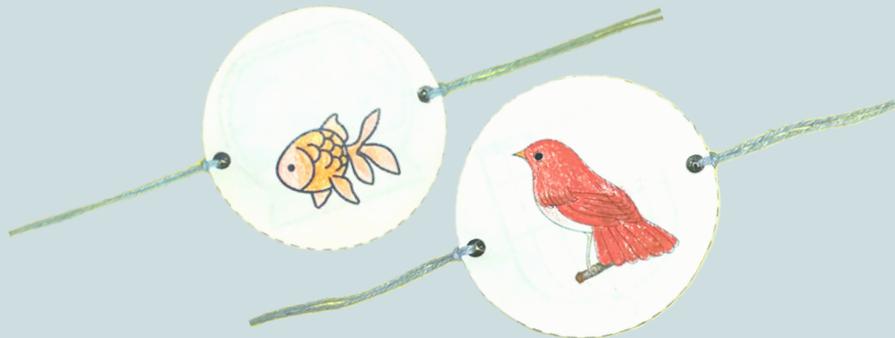


The faster you spin the disc, the more effective the illusion will be!

## Instructions

- Step 1:** Colour the images at the bottom of the page on both sides of the sheet
- Step 2:** Cut out the circles along the dotted line
- Step 3:** Have an adult punch or poke holes where the black dots are on each side of the circles
- Step 4:** Tie a string through the hole at each side of each circle

You'll have two thaumatropes that look something like this:



# WHAT IS A THAUMATROPE?

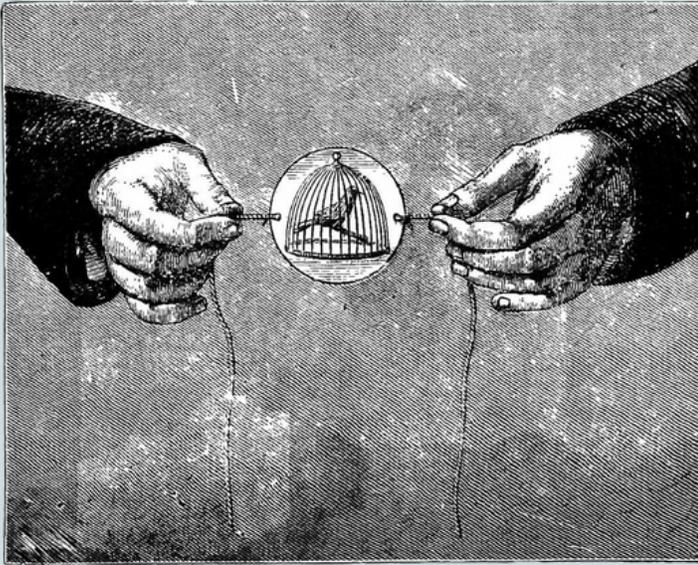


Image of the thaumatrope illusion from the book *Scientific Amusements* by Henry Frith, 1890.

Thaumatropes were simple and easily-made toys that were popular in the 19th century (specifically between 1830 and 1900). They were thought to be invented by a British doctor named John Ayrton Paris in 1827.

Spinning the thaumatrope quickly creates an optical illusion where it looks like the pictures on each side of the disc have been combined into one picture. The illusion is caused by something scientists call "persistence of vision", where your brain can still see an image for a short time after the image has disappeared. This is the same illusion that makes it look like sparks from a fire leave glowing trails and that makes cartoon animation work.

The name "thaumatrope" comes from the Ancient Greek words "thaûma" (wonder, marvel) and "trópos" (turn), translating to "wonder turner".



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