SPINNING DISK ILLUSION

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SPINNING DISK ILLUSION

You might have heard the term, "Faster than the human eye." But is there really something that can happen so fast that a normal human eye can't register it? Believe it or not, it's absolutely possible and the Spinning Disc Illusion is a great way to learn how easily your eyes can be beaten.

Materials
• Printer
• Card stock paper
• Glue stick
• Scissors
• Hole punch
• String or yarn
• Downloadable templates

EXPERIMENT
1. Start by clicking one of the Downloadable templates below.
2. These templates are printable and ready for use in this experiment. Use card stock or another type of thick paper for the best results.
3. Use the scissors to cut the circular templates out.
4. Paste the pictures back to back with one image upside down and the other right-side up. Make sure that you align the images as perfectly as possible. We've placed dots on the two circles to help you match them up.
5. Punch holes in the far right and far left sides of the image.
6. Tie a 12" length of string or yarn through one hole. Repeat with another 12" length of string in the other hole.
7. Wind up the strings by holding each string in one hand and twirling the disc.
8. Pull the strings taut and the disc will start to spin rapidly.
9. What do you notice about the two images? They blur into one combined image!

HOW DOES IT WORK?
The secret behind the Spinning Disc Illusion is the same magic that animators use to make your favorite cartoons. When images flash in rapid succession, like when you pull the strings taut, your brain cannot process them as individual images any longer. Instead, your brain takes the two images and combines them into one "hybrid" image. When animators use this principle, they use sequential images, for example of a person running, and flash them in rapid succession to create the impression that the person is actually running. In reality, it's hundreds or even thousands of individual images being blurred into one moving image. The images are moving faster than the human eye!
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HERE IS WHAT YOU NEED

PRINTED TEMPLATE ON CARD STOCK
SCISSORS
A GLUE STICK
A HOLE PUNCH
STRING
3. Put glue on the back of one of the disks.

Turn one disk upside down and glue them back to back lining up the black dots.
These dots are your guide to make sure the images line up.
4
PUNCH A HOLE IN THE DISK NEXT TO EACH BLACK DOT
CUT TWO 12" PIECES OF STRING AND TIE THEM THROUGH THE HOLES

TRIM OFF THE EXCESS STRING
Spin the disk to twist the strings

Pull the strings tight and watch what happens