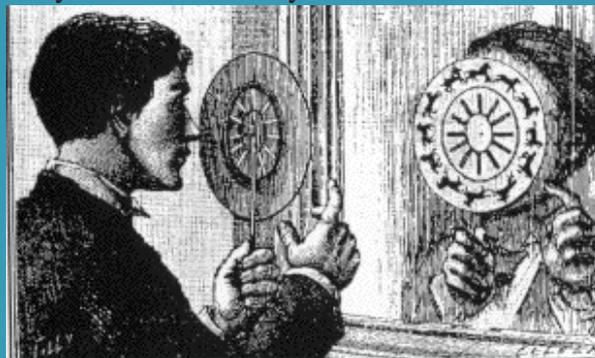
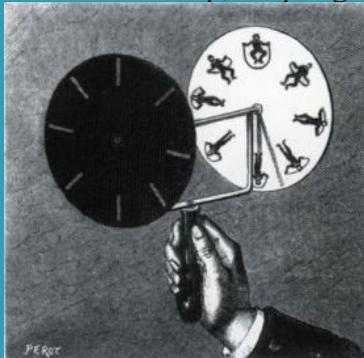


Toon Club Freebies

Phenakistoscope

History:

In 1832, Belgian physicist *Joseph Plateau* introduced the Phenakistoscope ("spindle viewer"). It was also invented independently in the same year by *Simon von Stampfer* of Vienna, Austria, who called his invention a 'Stroboscope'. Plateau's inspiration had come primarily from the work of Michael Faraday and Peter Mark Roget (the compiler of Roget's Thesaurus). Faraday had invented a device he called "Michael Faraday's Wheel," that consisted of two discs that spun in opposite directions from each other. From this, Plateau took another step, adapting Faraday's wheel into a toy he later named the Phenakistoscope.



Material needed

- A cardboard disk of 7" diameter
- Scissors
- Fevicol
- Pencil with an eraser on the end
- Soft board pin / Drawing pins
- Pencils, erasers, colours
- Large mirror

How to make your Phenakistoscope

1. Download and print the template.
2. Colour sequence of pictures brightly.
3. Glue the print out to a piece of cardboard, pressing out any wrinkles. Allow to dry.
4. Cut out the disc, taking extra care with the slots. Do not allow edges to bend. Cutting the V-shaped slots only at the end after cutting the circular disk, may help.
5. Push a drawing pin through the centre of the disc, on the side with the sequence of pictures, and into the side of a pencil eraser.
6. To work the Phenakistoscope, hold the pencil with the sequence of pictures away from you, and face a mirror. Spin the disc and look through the slots into the mirror. What can be seen?
7. What happens to the moving characters when the disc is spun at different speeds?



Make your own Phenakistoscope

Use the blank side of the Phenakistoscope disc to create your own moving character sequence. You will need to use twelve slightly different drawings in a sequence, one in each segment between the slots, till you reach your seventh drawing. Then you go back the same way to your first drawing so that your animation loops.

What will happen and why?

The pictures on the Phenakistoscope appear to be moving because of 'Persistence of Vision'. Your eye retains a picture for a fraction of a second. As you spin the Phenakistoscope and look through the slots, your brain merges it with the next image seen. Each picture is seen briefly in sequence. This gives the impression of movement. The important feature of the Phenakistoscope is the slots, which 'stop and frame' the pictures. Without slots the pictures would just spin in a blur. The Phenakistoscope is similar to how a projected film works.





Create your own!

Download this blank Phenakistoscope, print & cut. Once you have your disk ready. Draw with a pencil. Remember to test your Phenakistoscope before inking & colouring. Voila! Your own first mini-movie is ready ☺ Cheers!

Phenakistoscope template

