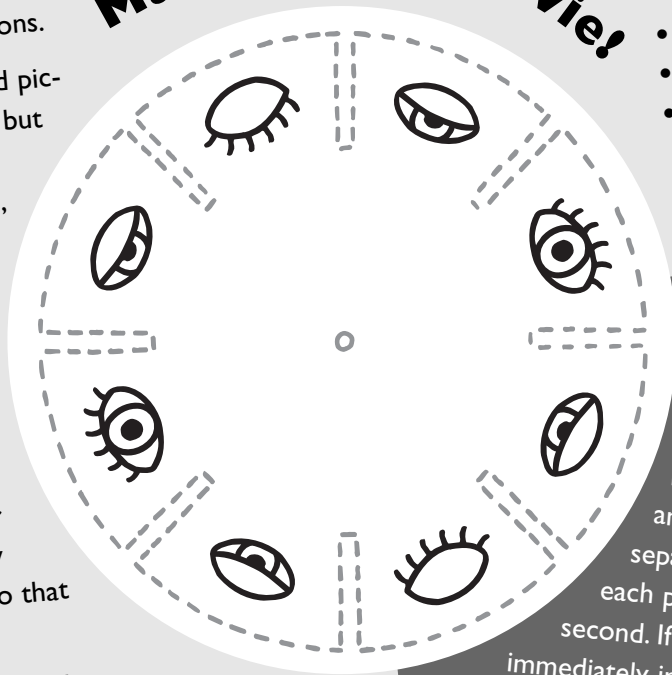




# Phenakistoscope

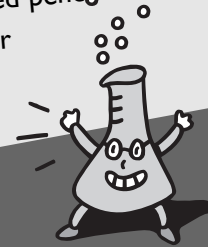
Make a mini movie!

- 1 Cut** out the phenakistoscope template.
- 2 Draw** a picture in one of the sections.
- In the next section, **draw** a second picture that is similar to the first one, but **change one part** of it. (For example, if you make a winking eye, draw the eyelid a little differently.)
- Draw a picture in the center of each section. Make each picture a **little different** than the one before it.
- Put** a push pin through the center circle and into the eraser of the pencil. Spin the disk a few times to make the hole larger so that it spins easily.
- Stand** in front of a mirror. **Hold** the pencil with the pictures facing the mirror. **Spin** the disk, and **look** through the top slits into the mirror. What do you **see**?



## What You Need

- phenakistoscope template
- scissors • marker
- push pin • mirror
- unsharpened pencil with eraser



## Science Scoop

When you spin the phenakistoscope, the pictures move so quickly that your eyes and brain can't see them separately. Your brain holds on to each picture for a fraction of a second. If the same picture follows immediately in a slightly different position, your brain blends them so that they appear to move. Movies work the same way—they use 24 still pictures per second to create the appearance of a single moving picture.



Now it's time for you to **experiment**. What happens if you **spin** the disk more quickly or more slowly? Make another disk and draw **different pictures**. Do some **shapes** or **colors** work better than others? Choose **one thing** to change (that's the variable) and make a **prediction**. Then **test it** and send your results to ZOOM.

Sent in by Brianna A. of Madison, WI



ZOOM is produced by WGBH Boston. Funding for ZOOM is provided by the National Science Foundation, the Corporation for Public Broadcasting, the Arthur Vining Davis Foundations, and public television viewers. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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