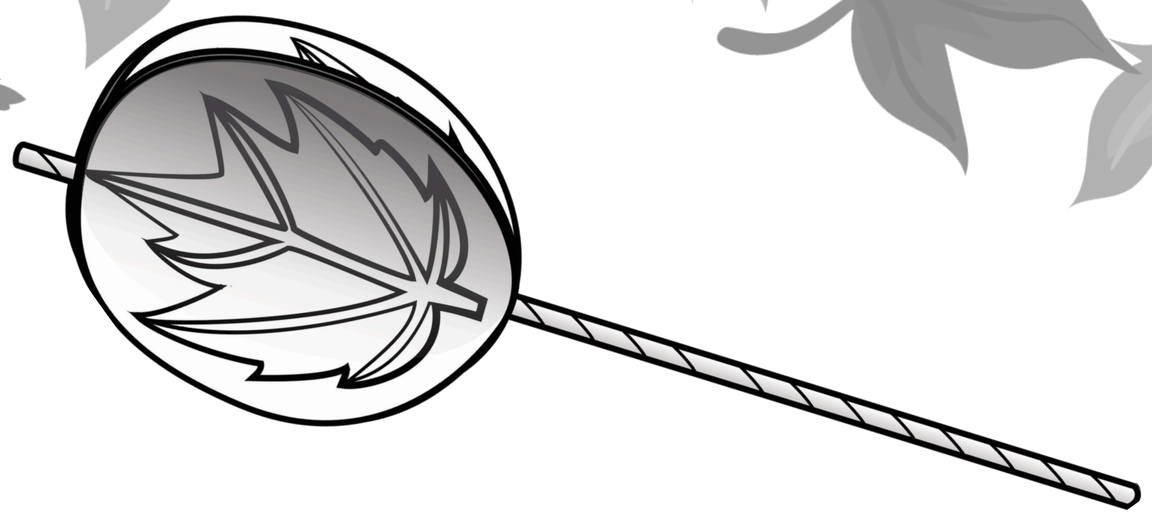


Autumn Thaumatrope:
Four-Face Paper Straw Spinner

Create your own autumn-themed thaumatrope! Trace and decorate autumn leaves, then spin your creation on a paper straw to see how the images come together.

What is a Thaumatrope?

A thaumatrope is a simple optical toy that creates an illusion by combining four pictures into one when spun quickly.

Each side has a different picture. When the thaumatrope spins, the images appear to blend together, creating a surprising new picture!

Materials:

- Printed Four-Face Thaumatrope Template
- Scissors
- Coloring pencils
- Glue stick / Clear tape
- Autumn leaves (real leaves or digital leaf references to trace)
- Hole punch
- Paper straw

Preparing Your Workspace

Gather all the materials and tools you need.

Work on a clean, flat surface with enough space to cut, color and assemble your thaumatrope.

Preparing Your Thaumatrope Faces:

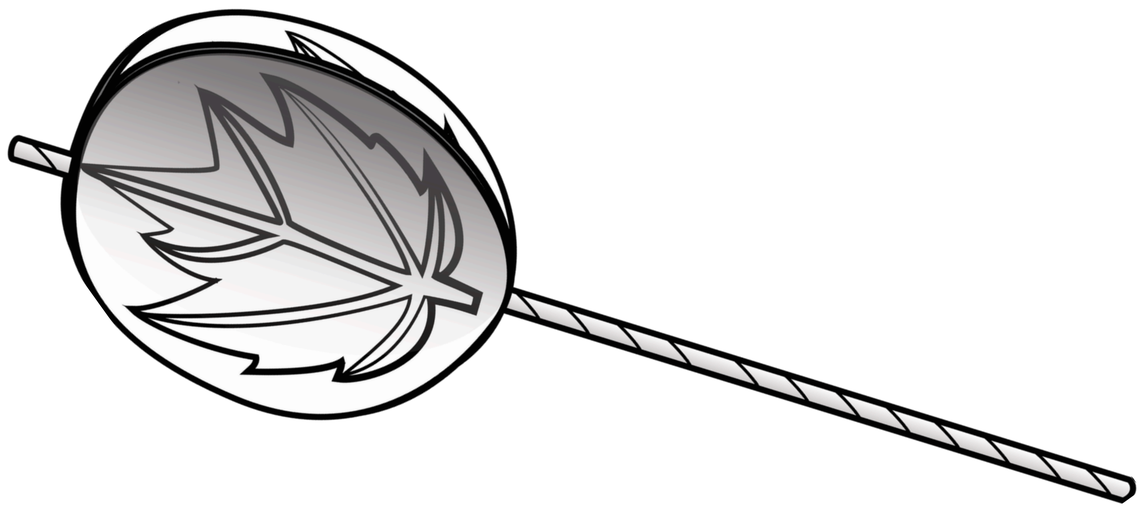
1. Cut out the four faces of the thaumatrope template.
2. Label the tabs to help you keep track of the correct positions when assembling your thaumatrope.
3. Choose some autumn leaves to use as your designs.
4. Trace the leaves onto the designated faces of your thaumatrope.
5. Color and decorate your leaves using coloring pencils. You can use different autumn colors to make your designs unique.

This Month™ STEAM Maker Lab™ | Autumn Thaumatrope: Four-Face Paper Straw Spinner

Grades 3–5 · 45–60 minutes · Makes one straw-spun thaumatrope

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Assembling Your Thaumatrope:

- Use a hole punch to make holes in the designated spots on each face.
- Arrange the four faces in their correct positions, using your labeled tabs as a guide.
- Glue or tape the faces together, joining the tabs.
- Leave a small space in the center of your assembled thaumatrope so that the paper straw can fit through the punched holes.
- Carefully slide the paper straw through the holes in the center.

Spinning Your Thaumatrope:

Hold the paper straw between your fingers and spin it to watch your autumn leaf designs come together!

After making your thaumatrope, try these experiments:

- Spin it slowly: Can you see the four pictures separately?
- Spin it quickly: What happens when the pictures come together?
- Try new designs: What other pictures could you combine?
- Change your colors: Does your design look different when you use brighter or darker colors?

A little history of thaumatropes

The word thaumatrope is often translated as "wonder turner". It is a fun way to explore how our eyes and brain work together to help us see the world.

The thaumatrope became popular in England during the 1820s. These early optical toys helped inspire people's curiosity about moving pictures and the technology that eventually developed into cinema!

How does it work?

When a thaumatrope spins quickly, the four images appear to overlap. This happens because our eyes and brain process the changing pictures so quickly that we perceive them together as one image.

This is an example of an optical illusion – something that tricks our eyes and changes how we see an image!

The same fascinating ideas about seeing images quickly helped scientists and inventors explore how moving pictures could be created.

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