



Animation Made Simple

Pam Stephens

Children, as well as adults, seem fascinated with animation. A process often associated with cartoons, animation creates the illusion of motion by showing a series of still images in various poses. Today's animated films often rely upon thousands of computer-generated images to make feature-length films, but in Victorian times animation was as simple as two hand-drawn pictures.

One of the earliest forms of animation is the *thaumatrope* (thaw-muh-trohpe), a simple device created in the early 1800s. The word *thaumatrope* is derived from Greek and loosely translates to mean "wonder turner," a phrase

that readily describes the gadget.

Actual thaumatropes are made with a paper disk and two pieces of string. On each side of the disk is a drawing. The drawings are somehow

related to each other, for example, a bird and a cage or a smiling face and a frowning face. Two strings are

attached to the disk. When the strings are rapidly twirled between the fingers, the disk quickly turns. This rapid turning of the disk creates an optical illusion when the two images seem to move or combine.

In this lesson, students will learn how to make a simple type of thaumatrope using paper, markers, a plastic drinking straw, and glue or tape.

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Teacher Preparation

Before beginning this lesson, assemble a paper/straw thaumatrope example to use as student motivation and to demonstrate how animation is an optical illusion of movement.

Assembly of the straw-card thaumatrope:

1. Copy the flying bird images on this page or create your own example.
2. Cut out the images so that each is about 4" square.
3. Tape or glue a straw to back of one image. Leave enough straw exposed that it can be held between the palms of your hands and rotated as you rub your hands together.
4. Tape or glue the second image back-to-back with the first.

Student Activity

1. Explain to students that animation is an art process that is used to create



Left: Flying bird image created by Jim McNeill. Right: Ashton Mochamer demonstrates the paper/straw thaumatrope.

the illusion of movement. Point out that animated movies and Saturday morning cartoons are examples of animation.

2. Using the example you have created, demonstrate the thaumatrope. Point out to students that they are seeing an optical illusion not unlike the optical illusions created by animated cartoons.
3. Ask students to brainstorm a list of opposites such as sad/happy or awake/asleep. Which opposites would they like to animate?
4. Tell students to draw one of their ideas on one of the 4 x 4" papers. On the other paper, draw the opposite idea.
5. Emphasize exaggerating a certain point to make the animation more obvious. Point out how the bird's wings in the example show the opposites of up/down. Ask how the

artist made the wings important to the drawing. [both birds have similar details, the wings are dark]

6. Demonstrate how to assemble the thaumatrope.
7. Encourage students to show their own thaumatropes and to talk about how their thaumatropes show movement. How is the animation in the student-made thaumatropes the same as modern-day animated cartoons or movies? How is it different? 🌀

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NATIONAL STANDARD

Students use visual structures and functions of art to communicate ideas.

WEB LINK

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Objectives

After viewing the flying bird example, students will create a simple type of thaumatrope, learn about optical illusions, and explore the idea of opposites.

Materials

- 4 x 4" (10 x 10 cm) white construction paper (two per student)
- markers
- plastic non-bending drinking straws (one per student)
- white glue or double-sided adhesive tape