



Materials Needed

O 8.5" x 11" cardstock or printer paperO Pencils, pens, markers

Grade Range K-2

Topics/Skills

Science: Structures and Processes; Persistence of Vision Art: Forms, Structures, and Materials

Learning Standards

NGSS: <u>Life Science</u> CA Visual Arts: <u>Creating</u>

Duration 10-20 minutes

Prep Time 5-10 minutes

Animated Greeting Cards

A Simple Way to Make Artwork Appear to Move!



This fun activity will give students the opportunity to create a basic animation to better understand how motion pictures and the human eye work.

Activity Challenge

Create an animated greeting card.

Preparation

- 1. Review the Materials Needed list and gather all materials.
- 2. Think about the animation you want to show. For example, you might show a fish opening its mouth to eat, a monster smiling, or a student laughing. Use your imagination!

To Do

1.

2.

3.

4.



Start by folding one sheet of paper in half.



Fold one of the top flaps over so it aligns with the folded crease.



We are going to draw a friendly monster for this activity. Keeping the flap down, draw an oval for your monster's head.



Draw eyes and a mouth. Make sure that the mouth is drawn on the bottom flap of the card.

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5.

Open up the card. Connect the face and mouth and draw teeth. Add other characteristics, like ears and chin, to make your character come to life! Write a greeting on your card for a friend or family member.

LEARNING

ACTIVITY



Open and close your card to see your character come to life!

7. Now try your own design

Observations

6.

The character on your card should appear to your eye as an animation as you open and close the card. The quicker you open and close the card, the more fluid the motion in the animation will be.

- What do you notice with your card?
- If the animation was not smooth, how might you improve it?
- Try your ideas and observe the results!

Extensions

- Try creating an animated card with two or more characters. How can you show their relationship by opening and closing the card?
- Create several cards that can be included in a series together to create a story.
- Check out <u>RAFT's Animated Flip Books</u> to challenge yourself to make a series of animations.

The Content behind the Activity

When an image is sent from the eye to the brain, the image lingers until the next image is perceived. This phenomenon is known as persistence of vision. When a sequence of images in an animation is presented to the eye in rapid succession (quickly), the brain melds them together and assumes that the images are a moving object. The format for animated feature films displays 24 frames per second. The Disney animated film *Snow White* was the only film that animators drew and inked 24 pictures for each second of the movie. After *Snow White* was completed it was realized that the human eye can only register 12 picture changes per second. Animated films still have 24 frames per second, but to save on production costs_each animation "picture" is shown twice. The human eye can't tell the difference!