



MAKER ED

LEARNING IN THE MAKING: STOP MOTION ANIMATION

INTRODUCTION

Ever wonder how your favorite cartoon characters come to life? It is done through the process of **animation**.

The basic principles of animation uses a sequence of pictures or drawings that are all slightly adjusted or changed in each **frame**. Typically, this process is repeated hundreds or even thousands of times. When you play the images consecutively or in a row, the objects create the illusion of moving on their own!

Stop-motion is another style of animation and is really simple! Instead of drawings, artists use objects to create their illusions!

YOUR CHALLENGE

Use the principles of animation to create:

- Thaumatrope Toy
- Storyboard
- Stop Motion Animation



Tools & Materials of Making

- **Thaumatrope Toy:** Stick or straw, writing utensils, scissors, paper, tape or glue
- **Stop Motion Animation:** Camera, computer or tablet, writing utensils, post its, objects that have meaning to you, a backdrop (paper, table, craft paper - any surface works)



OPTICAL ILLUSION

Explore how our brain gets tricked by creating the illusion of movement using a thaumatrope toy.

1. Think of 2 things that represent you.
2. Trace & cut 2 circles.
3. On each circle, draw one of the things you have chosen.
4. Sandwich the stick with tape or glue in between the two circles so that each image is faced outwards.
5. Hold the stick between two palms and spin! What can do you notice?



Subject

Animation



Standards

CCSS.ELA-
LITERACY.SL.4.5



Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.

Grades

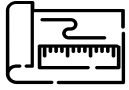
3-5th
6-8th
9-12th



Key terms

- Animation
- Frames
- Storyboard
- Stop motion





ACTIVITY INSTRUCTIONS

IDEATE

Pick an object that is meaningful to you. Think of a **concept** for your animation. What can you share about yourself through that special object?

STORYBOARD

Create a visual representation of your story's main ideas by breaking down the action into individual, key scenes.

- Identify which details of the story are crucial.
- Draw each shot in sequence.
- Provide a visual guide for looks, feelings and movement.



SET UP

Gather all the supplies and equipment you'll need to shoot your animation. Select your backdrop, lighting, camera stand and shooting space.

ANIMATE

It's time to start capturing frames for your stop motion film!

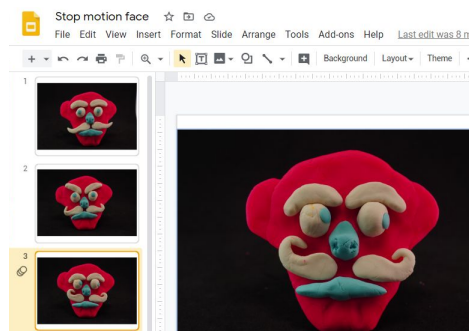
- Set your object in your scene and shoot the first **frame**.
- Move the object a bit, take another picture and repeat!
- Each frame will help to create a sequence to tell your story.



EDIT & SHARE

Import your pictures to your editing device (laptop, phone or tablet)

- Put the photos in sequence using an editing platform (Google Slides, etc.)
- Setup the speed of the slide.
- **Export and share!**



Reflect



- What objects or images have special meanings for you and why?
- What details about yourself would you include in your story?



Think beyond the original purpose of your materials. **Any object** can be animated. You can even animate yourself!



In animation, **frames** are individual pictures in a sequence of images.



Helpful tip
Keep your camera steady by using a tripod or setting it up against something.



Lighting
Avoid using natural light. Use artificial lighting so your shot can stay consistent.



Movement
The more photos with slight changes, the smoother movement feeling you'll get.



Pro tip
Use the "Stop Motion Studio" app or a video editing software to create more advanced animations!



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Share your project!
@MakerEdOrg
#MakerEdAtHome
#StopMotionAnimation



Watch this activity video here:
bit.ly/MakerEdStopMotionAnimation



For more resources, visit us:
makered.org

