

STOP MOTION ANIMATION

The Basics

Stop motion animation (also known as stop action animation) is the process of stringing together a series of still shots to create a movie. It can be done with clay (Wallace & Gromit and Gumby), puppets (The Nightmare Before Christmas) or anything else you can easily photograph and move around. Although you can achieve stunning results, don't be nervous! Stop motion animation is easy and fun to do with kids, even the younger ones.

Necessary tools:

- a digital camera
- video editing software
- plenty of harddrive space to hold your photos and movie
- for longer movies, a place where you can record and leave the camera and set uninterrupted if you need a break
- optional: a tripod to keep the camera steady, adjustable lighting

As you get started, please keep in mind the following tips:

- Stop motion animation is fairly simple, but it's also time consuming. Don't expect to make a feature-length film, or even a 5-minute short, on your first attempt.
- You'll want at least 10 photos for each second of film. Plan accordingly!
- One of the more important rules of stop motion animation is that the camera cannot move during shooting. Use a tripod or a solid surface where you can keep the camera stable.
- Directions always say this, but read this step-by-step through once before getting started. That way, you'll avoid surprises later.

Cast Your Movie

If it's your first attempt, especially if you're working with kids, choose the "actors" for the film first. In this case, the actors are inanimate objects that you'll be using to create your movie. Your best bet is to start off with just one or two actors, but there's no limit to what you can use:

- stuffed animals
- LEGO figures
- origami creations
- clay sculptures
- action figures
- food (vegetables, cereal, macaroni, candy, etc.)
- rocks
- fashion dolls
- refrigerator magnets
- die cast cars
- Christmas ornaments

There are no rules here, but I have a few guidelines to make your life easier. Choose objects that:

1. are easily moved

2. can stand on their own (you don't want to have to hold them up while you're trying to take a picture of them)

Create a Story

Now that you've got some actors, it's time to come up with a plot. Don't go crazy; choose something short and simple. If you're working with kids, help them brainstorm ideas. For young kids, it may be easiest to have them choose their favorite (short!) book to act out.

Write out a "script" that includes details about what the characters should be doing at any given time. If necessary, break the story into scenes, where each scene has no more than one background/set.

My favorite first film for kids is to have an object move into view in the scene, travel across the set, and exit from view again. This does well with a toy boat or animal as an actor. It's simple, quick, and is enough to get kids engaged. It's also a good way to get a sense of how much you have to change an object in each shot to get realistic movement in the final film.

Set the Scene

You're probably going to want to use some sort of backdrop for your scenes. They can be simple, such as a blue blanket on the ground to give the effect of water, or elaborate, such as a castle or faerie forest. Have fun with your decor, but make sure to set it up where your work won't be disturbed. You'll also need a spot to put the camera where it won't move. A tripod is ideal, but a sturdy table or chair will work as well.

You're going to want to do all the shots for scene at one time, if it's at all possible. Otherwise, changes in lighting and minor movement on your "set" will be quite noticeable in your movie.

Start Filming

And now the magic begins.

- Place your characters on the set in their starting positions.
- Make sure you know what they're supposed to be doing in this scene.
- Take a picture.
- Make slight changes to your actors so they progress in whatever action they're doing. For example, if a person is waving, you'll want to raise their arm slightly to start that movement.
- Take a picture. Remember, the camera never moves. When you're advanced enough to use a panning camera in your stop motion movies, you won't be reading this any more!
- Continue moving your actors and taking pictures until all movements in the scene are complete. As a reminder, you'll want at least 10 pictures per second of film.

The most important thing to remember at this stage is to be very careful when moving your actors. If the set shifts or an actor gets knocked out of place, it is very difficult to go back to the way it was before. On a similar note, changes in lighting (for example, if the sun is setting outside) will be very noticeable in your film. Basically, changes that seem small in "real time" will be exaggerated in a stop motion movie. That's exactly why it works!

Import Your Pictures

Ok, regardless of what program you're doing, you'll need to import the pictures into the software. You may need to do this more than once if your digital camera runs out of memory while filming. Just try not to move your camera and/or tripod!

You will be using iMovie on the macs to create your digital short film.

When bringing photos into the video editing program, make sure that they're in the order in which you shot them. If not, take a moment to rearrange them.

Each editing program is different, so use the manual or help function to add the photos to the video timeline. Each photo will act as a "frame" of the movie. Make sure there are no transition effects playing in between frames (except between scenes!), as that will disrupt the animation.

Add Sound

Music, sound effects and dialogue can make or break a movie. Now is the time to add the elements that will set just the right mood. Of course, if you've got an impatient co-producer, you can skip this step and go right into final production.

Music: Use your favorite music as a backdrop for your film, or download something new. If you decide to release your new movie to the world, you'll want to make sure you're not infringing on the copyright of any music choices you've made. Make sure you give credit to the people who created and produced the songs or tracks you use.

Sound Effects and Dialogue: To add your sound effects and dialogue, you can dub them in, just like the pros do. If your video editing program allows you to record, that's the best bet. Otherwise, use the recording software that came with your operating system. Set the movie to play and record the dialogue and sound effects at the appropriate moments in the movie. Of course, you'll want to practice this first to the the timing right, and you may still need to shift the sound slightly (use the help that comes with the editing software) to make everything more realistic.

Tweak and Publish Your Movie

We're nearing the final stretch! Once again, if you or your youngest co-producer is bored to tears, just publish the movie and be done with it. This is supposed to be fun, afterall! Otherwise, read on...

Have some fun exploring your movie editing software. Chances are, it has a way to add a title screen, credits, and maybe even digital special effects. You might be able to make your western more realistic with a sepia-tone filter or add some comic-book style explosions. Play around until you're happy with the results, but make sure you keep one "clean" copy saved before you go crazy with extras.

And that's it. Publish your movie and have fun playing it over and over... Now it's time for your movie premiere!

You will publish your stop motions in iDVD!

Hold a Screening

The hard work is done and it's time to bask in the glory of your achievements. So, grab some friends and the popcorn, plug-in to your big screen, and watch the magic unfold. We will be viewing them in class as well as allowing the whole school to come see what you have created :0)

Requirements:

- Character(s)-
- Story-
- Setting(s)-
- Credits-
- Opening title page
- You will also be graded on how well you photographed your stop motion as well as how you edited each photo. (This includes the amount of time you allotted for each photo and if any photo is blurry)