

Clay Animation

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Clay animation (claymation) is the ideal medium for engaging multiple intelligences, integrating technology with curriculum, satisfying curriculum and technology standards, and allowing students to utilize their own strengths as well as their own personal creative expression. Imagine a classroom where students are involved and excited, where they enjoy learning because they're intensely involved. That sounds like claymation!

Visit my portaportal to discover many useful resources for information, lessons, and ideas for clay animation projects in the classroom.

Portaportal: itrtr-rcps

If you have never done claymation with students, then you're in for a treat. It's a lot of work, as with any other creative process, but your students will enjoy it and the results will be fun for everyone to watch. Project learning allows students to combine efforts and ideas in a cooperative work effort

Your first decision is where to begin. A good place to start is a **flipbook!** Google "flipbooks" and you'll quickly see that flip books are being used as marketing tools in business. Why not use them in education? There are even some free downloadable flipbook tools (like FLIPBOOK! ... go figure) that your students can use for creating them.

Once the kids get the concept of animation creation with flipbooks, try a simple stop-motion claymation. This project is easiest when students work together in a group. Students should begin with the Script Worksheet where they decide on a story, characters, set design, props, and give the claymation a title. They should further plan the project by listing the materials they will need and determine who will supply them as well as what jobs each member of the group will perform for the claymation: storyboard artist(s), set design, props (depending on the number and cost of props, this may require the cooperation of all group members), clay artist(s), photographer (this job is best handled by one person with a steady hand), computer movie maker(s).

Here are the basic steps for creating a clay animation video:

- 1) Brainstorm ideas. Then discuss and decide on a storyline.
- 2) Create a character, plot, set design, and write it out on the Script Worksheet.
- 3) Draw the action on the Storyboard Worksheet. Keep it simple. The biggest mistake first-time animators make is trying to include too much action or too many scenes.
- 4) Design clay figure(s), setting, and props. Put in a safe place to store. Remember, clay changes so the quicker to complete the designs and photograph your animation, the better the finished product will be.
- 5) Take photographs. Do this quickly and take lots of pictures (about 40 if possible), but make each motion small and slow to keep the animation smooth.
- 6) Import photos into Windows Movie Maker or Mac iMovie. Set the duration for each photo at 6-10 frames per second to create a smooth transition from one image to the next. (See the Camera Set-up and Video Editing Instructions for details.)
- 7) Add a title slide at the beginning of your claymation and a credits slide at the end to give credit to everyone who participated in your project.
- 8) Enjoy your claymation!

There are many ways to use claymation in the classroom. For starters, consider one of these:

- 1) To illustrate a math concept, like fractions, geometry, or numbers and operations.
- 2) To show color changes by combining different colors of clay
- 3) Creative writing project for showing a folktale, poetry, or original story.
- 4) To demonstrate a biological process, like plant growth, digestion, or cell division.
- 5) Showing a chemical process, like bonding.
- 6) Demonstrate an earth science event, like a volcanic eruption.

This is obviously a creative process and once it is completed, you will need to decide how to evaluate it. Designing or finding a group project rubric or presentation rubric is one possible consideration. Another might be an evaluation scale that includes each of your project expectations.

Items needed for claymation will vary depending on student storylines and they may have some items on hand to bring, but here is a list of items that you might consider providing to students for their projects:

nondrying modeling clay

plastic knives and utensils for cutting and shaping clay

garlic press and other tools for making stringy or curvy designs

cardboard for set design and props

construction paper

pipe cleaners

wire for making forms for clay figures

twine and fishing line

popsicle sticks and wooden or foam shapes

wiggle eyes

clothespins

styrofoam balls and shapes

feathers or other craft items

miniature furniture, vehicles, or other tiny items

scissors

hole punch

glue

tape

Script Worksheet

Name: _____

Group: _____

Character(s): _____

Action (Use diagrams and sketches below or on the back to help explain your ideas. These will be further developed on your Storyboard Worksheet.)

Sound, Music, or Voice: _____

Set Design (Use diagrams and sketches below or on the back to help explain your ideas.)

Materials Needed (and how they will be obtained): _____

Storyboard Worksheet

Draw a comic-style representation of your story that includes all of the characters and their actions in the story, along with sound cues and production notes.

Scene: _____ _____	Scene: _____ _____	Scene: _____ _____
Scene: _____ _____	Scene: _____ _____	Scene: _____ _____

Camera Set-up and Video Editing Instructions

For your shots, you can use a 35mm movie camera, camcorder, web cam, or digital still camera. In all cases, keep the camera itself as still as possible when taking pictures. A jiggled camera causes a choppy transition from one image to the next.

- 35mm movie camera – Set up the shot, take the picture, adjust the clay subject and take another shot until all shots are captured. (This method was originally used for clay animation and still the industry standard today because the images are highest quality, but film and developing are high cost and there is a time delay before viewing the completed video.)
- Camcorder – Set up the shot, record, pause, adjust the clay subject, record, pause and continue the process until all shots are captured. Capture the video on computer with a card, box or cable and then edit. (This method results in low quality video because images can be choppy and distorted.)
- Webcam or usb video camera – Hook the camera to the computer, run the video capture program that came with it, set up the shot, grab a still image, adjust the clay subject, grab an image and continue the process until all shots are captured. The video is already on your computer and ready to edit. (This type of video is usually low quality because webcams have limited features, like zoom and iris control.)
- Digital still camera – Set up the camera on a tabletop tripod, set up the shot, take the picture, adjust the clay subject and take another shot until all shots are taken. (This method is low cost, portable and quality varies depending on camera and user.)

Capture the images on the computer, using the instructions below:

1. Capture images at 6-10 frames per second (fps) at the highest resolution allowed by the camera (usually 640 x 480 pixels at RGB 24 pixel depth). You will want your video to run as smoothly as possible.
2. Use full uncompressed files to create the video for maximum quality. You may need to compress the completed video, but use uncompressed files initially.
3. After editing the video, add your audio (music, sound, or voice as planned in your script and storyboard).
4. When you have finished all of the editing, view your finished claymation project in .avi format. After reviewing and approving the finished video, compress it into a smaller file (.wmv, .mov, etc., depending on which computers will be playing the completed project).