



PIXILATION

Animation in the Artroom

Karin Gunn

Technology and media increasingly play central roles in the lives of American children. How can art teachers engage their media-saturated students in exciting learning activities that are challenging and relevant to students' out-of-school experiences? I have found that animation in the artroom can engage and excite students, promote learning, teach a variety of skills, and develop critical and creative thinking. In my animation classes, I have found pixilation, a stop motion technique, to be appropriate for learners of all ages and abilities because it is direct, participatory, and requires no special props or materials.

What is Pixilation?

Pixilation is a stop-motion technique especially used for animating "live" actors. Norman McLaren (1914–1987), a Canadian animator, introduced pixilation in his Oscar-winning film *Neighbours* (1952) and in the later film, *The Chairy Tale* (1957). Instead of making a series of drawings, human beings are placed in a series of postures in front of the camera. A stationary camera records a posed human subject, who moves to new positions between frames. When creating a pixilated animation, I have my students view and discuss McLaren's works and collaborate to complete an animation using themselves and their classmates as the primary materials.

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Materials

- tripod
- video camcorder
- FireWire cable
- computer (preferably laptop)
- video/image editing software
- *The Collector's Edition* DVD with Norman McLaren's best works and his documentary *Creative Process: Norman McLaren*.

Set Up/Registration

To prepare for filming, point your camera with tripod at an open area. A tripod is necessary in order to keep the composition perfectly aligned. This ensures that all parts of the image, including the changing and non-changing shapes, are smoothly coordinated. This is similar to "registration" in cel animation. It is important to remind students that every second of video contains thirty frames, meaning that for every thirty moves they make, they will only have one second of footage. To save time, it is possible to simplify the process by repeating each frame three times, so that only ten separate poses are required for one second of film.

Exercise 1: Class Collaboration

Clear a space in the classroom for performing or take students outside. Discuss ideas for a class collaboration using pixilation as the primary

Above: Stills from a class collaboration called "Human Ping Pong" using pixilation technique to create stop-motion videos.

Right: A girl preforms for her class video.



technique. Once you decide on a pose, ask for a student volunteer who will lead the others in a line. I suggest that the teacher should operate the camera and direct, while the entire classroom works together to perform the pose and learn the technique.

Ideas for Pixilation

- swimming
- floating
- driving
- skating
- sliding

Different ways to Pixilate

- Shoot stills with the camera and loop them in a sequence.
- Shoot straight video and show it without editing.
- Capture single frames directly into Adobe Premiere (for PC) or FrameThief (for Mac) which allows instant playback.
- Shoot straight video and use editing software to remove frames, speed up or slow down footage.

Exercise 2: Group Collaboration

After the demonstration, students understand the technique and are ready to form into groups of three to six. Each group will be in charge of creating an animation using pixilation as the primary technique. The duration should be at least thirty seconds but no longer than five minutes.



Evaluation

Have groups share final projects with the entire class and invite critique. In addition to a final assessment, I encourage teachers to conduct informal, in-progress assessment. For example, how identifiable and consistent is each group's style throughout the animation process?

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of pasting together a series of captured images. As know-how advances or more equipment becomes available,

pixilation can be come more elaborate even extending into full feature-length animation. Because pixilation is so versatile, it is a great tech-

nique for beginning art students, and one that they can continue to expand upon as they advance through school.



Karin Gunn is an art teacher at West Port High School in Ocala, Florida. karingunn@gmail.com

NATIONAL STANDARD

Students conceive and create works of visual art that demonstrate an understanding of how the communication of their ideas relates to the media, techniques, and processes they use.

WEB LINK

www.teachanimation.org

Top: Stills from a class collaboration called "Lord of the Class Ring" using pixilation technique to create stop-motion videos. In this scene, a backpack is being stolen by a classmate rendered invisible by a class ring he found. Below: Stills from a class collaboration using pixilation technique to create stop-motion videos. This scene depicts an invisible car race where one driver has drifted off course.