

Classroom Activity

Time-Lapse Photography

Enduring Understanding Photographers and filmmakers capture and manipulate the passage of time through time-based media and framing techniques.

Grades 3–12

Time One class period

Visual Art Concepts Shape, movement, representational and non-representational, positive and negative space, form, time, space

Materials Glass tray, transparent cooking oils and/or syrups, color dyes (food coloring), color inks and various other household liquids (car oils, house paints, etc), black paper to mount finished photos, digital camera (camera phone, iPad, etc), web-enabled computer, digital printer, and photo paper.

Talking about Art View and discuss the *2001: A Space Odyssey* (1965–68) film stills included in the curriculum.

Stanley Kubrick’s epic *2001: A Space Odyssey* is a work of compositional virtuosity; any one of the film’s still images reveals an entire world tailored into a single frame. The ambiguous story traces human evolution and a series of encounters with a peculiar black monolith. Sometime in the distant past, the monolith was buried under the lunar surface and in the year 2001, a space voyage to Jupiter traces the monolith’s electric signal or current. Two astronauts embark on the journey to reach its signal, aided (or obstructed) by a “thinking” and “talking” computer.

Kubrick’s manipulation of the passage of time in the film creates a sensory experience. The pace of the film is slow. Short spurts of dialogue only occasionally interrupt long expanses of slow motion and ambient sound. The smallest acts are prolonged so as to seem revolutionary; walking happens at a snail’s pace to mimic zero-gravity. The distortion of time is expertly realized in the penultimate scene when one of the astronauts risks his life to save his comrade in danger. Ironically, a painstakingly slow pace shapes the most heightened sense of suspense.

Look closely at the film stills provided, what appears to be happening? How does Kubrick use composition to mimic zero-gravity in this scene photograph? If he were to zoom-in on the action, would a detailed shot have the same effect? How would the action progress in a related series of photographs?

Making Art

In *2001: A Space Odyssey*, Kubrick manipulated the passage of time by capturing slow motion on film. Experiment with documenting the passage of time using digital photography and simple, household materials.

Pour a one-inch-thick layer of a light, transparent cooking oil or syrup into a glass tray. Place the glass tray on a flat, well-lit surface. Position your camera so that it is ready to shoot, then ask a partner to drip colored ink into the tray of oil. As the oil and ink interact, quickly photograph close-up shots of the ink as it moves through the oil. Take several photographs to create a series, experimenting with different colors.

Download all photos to a computer (or email them to yourself). Edit and crop photos as necessary. Print three photos and juxtapose them together to create a triptych. Choose three that capture motion and progression, representing time-lapse photography.

Reflection

Mount photographs on black paper then display them around the classroom. Facilitate a gallery walk so that students can view all of the photographs. Remember, no touching artworks in the gallery.

Revisit Kubrick's representation of time and zero-gravity space travel. How do your photographs evoke a sense of space and time? What role does chance play in creating artworks such as these? What role did technology play in your experimentation?

Curriculum Connection

Use time-lapse photography to document the stages of plant life. Plant a seed in a glass vase, directly against the glass for an optimal view. Set up a digital camera on a tripod in a well-lit part of the classroom and take regular photographs of the seed for the length of its gestation to mature plant. Download the photographs onto a computer and edit photos together. Present the series in a science fair with accompanying research and information.

Classroom Activity

Stop Trick Animation

Enduring Understanding	Artists and filmmakers use special effect techniques to create stories that suspend disbelief.
Grades	5–12
Time	One to two class periods
Visual Art Concepts	Background, middle ground, foreground, space, frame, composition, color
Materials	Paper, pencils, pens, colored pencils. Optional: <i>AnimAction</i> Software, standard camcorder, copy stand or camera tripod, computer, storyboards, field guides, peg bars, animation paper. Software and animation materials can be found at http://www.animaction.com .
Talking about Art	<p>View and discuss the <i>A Trip to the Moon</i> (1902) film stills included in the curriculum.</p> <p>With a penchant for play, magician-turned-filmmaker George Méliès used the medium of film to alter, rather than record, reality. His best-known film, <i>A Trip to the Moon</i>, chronicles the whimsical tale of six astronomers who embark on an interstellar journey. They build a rocket in the form of a bullet and construct a cannon to catapult themselves into the eye of the Man in the Moon. Upon arrival, they revel in such astronomical spectacles as the Big Dipper, the Great Bear, and the passage of comets and meteors. Snowfall disrupts their sleep and they descend into a crater where they are captured by aliens. The astronomers fight their way through, reducing the fragile beings to dust. They rush back to the rocket and return to the earth’s atmosphere in a dramatic ocean landing.</p> <p>Méliès experimented with the use of live action in combination with animation, including the stop trick effect. Stop trick is the illusion of objects or people appearing, disappearing, or morphing into other objects, as seen in the fight scene where aliens disappear into smoke with the stroke of a fist. To create this effect, Méliès deliberately stopped filming at the point of contact, asked the “alien” to step out of frame, then resumed filming. In true magician’s form, the seamless result seemingly defies the laws and properties of physics.</p>

Méilès was also one of the first filmmakers to layer compositional planes by physically dividing the frame into a separate background, middle ground, and foreground. He often hand-tinted his film stills as well. Take a look at the black-and-white reproductions. If you painted them with watercolor, what colors would you choose? Would you use warm colors like red and yellow or cool colors like blue and green? Do you think the colors would influence the feel and emotion of the film and its story?

Making Art

Film, especially animation, requires you to suspend natural disbelief. Frames of two-dimensional images, when presented in rapid succession, transform into three-dimensional motion. When you watch an animation, you understand the images are not real yet you get caught up in the illusion.

Using *AnimAction* software, animation tools and supplies, create a short animation incorporating stop trick techniques. First, storyboard a narrative about an object or character appearing or disappearing. Compose the key frames on the storyboard and then transfer the drawings to animation paper (tracing paper). Design the drawings or shots so that each has a foreground, middle ground, and background. Add extra frames between the key frames on separate sheets of animation paper to heighten the illusion of seamless movement. You should assemble the frames in shooting order, which is the same sequence as you drew them. Then, color the frames to add an emotive touch.

When finished, use a camcorder connected to a PC/MAC computer and *AnimAction* software to capture each frame individually. Film all frames then test your animation by watching it play. This is called a pencil test. Make adjustments to your drawings as needed by adding or removing frames. The more frames you add between key frames, the smoother and longer your animation will be. Finally, add complementary music to your short.

Reflection

Facilitate a final screening of the animations in class. Discuss the fun and difficulties of using drawing and technology to create animations. How might the process differ if you filmed the same story using live action characters and setting? How might the process be similar?

Elementary Connection

For lower grades, create an animation flipbook. First, draft the story on a storyboard. Every day for one month, ask students to draw one to two pages of the book. At the end of the month, bind the book together using hole punches and string then flip to bring the animation to life.

Classroom Activity

Monumental Mini Movies

Enduring Understanding	Filmmakers capture and manipulate the illusion of space, scale, and sound through set design techniques.
Grades	6–12
Time	Three class periods (production, filming, screening)
Visual Art Concepts	Line, space, size, scale, organic and geometric, contour and organic lines, two-dimensional and three-dimensional forms, linear and atmospheric perspective, staging, layering, and relative size.
Materials	Markers, crayons, colored pencils, glue, tape, cardstock and construction paper; iPad or video-enabled smartphone. Optional: <i>Tabletop Moviemaking Studio</i> , LED light kit with gels; Cityscapes Worksheet.pdf (provided on curriculum CD). <i>Tabletop Moviemaking Studio</i> is available at http://www.tabletopmedia.org .
Talking about Art	<p>View and discuss the <i>Metropolis</i> (1926) film stills included in the curriculum.</p> <p>The set for <i>Metropolis</i>, designed by Erich Kettelhut, was inspired by director Fritz Lang's first glimpse of the New York City skyline. Monumental scale was achieved by means of an ingenious special effect called the Schüfftan process, for which cinematographer Eugen Schüfftan placed a mirror at a forty-five degree angle between the camera and miniature models of skyscrapers. To create the illusion that the actors are interacting with a life-size set, he staged the actor in a precise location and looked at his/her reflection on the mirror. He then traced the actor's silhouette, cut the shape from the mirror, and then replaced the outline's shape with a regular piece of glass. Lang filmed only the actors, keeping the models and mirrors in place, thus capturing the actors and action against the world's first green screen.</p> <p>Look at the scale of people and buildings depicted in <i>Metropolis</i>. What shapes do they form? Analyze the contour lines of the buildings; are there straight lines with ninety degree intersections or are there organic lines? Compare these images of cities with the city or neighborhood that surrounds you. How have technology and new building materials changed the way the city looks? Do you think today's buildings will be around in 500, 1000, or even 2000 years? Why or why not?</p>

Imagine life in an ancient or futuristic city. In what ways might life be similar or different? Think about the environment in which you might live. How would living in a single-story mud and stone dwelling differ from living on the 100th floor of a glass and steel structure?

Making Art

In *Metropolis*, Kettelhut was able to create the illusion of space through set design and special effect techniques. In small groups, use simple drawing materials, an iPad or smartphone with a video camera, and the *Tabletop Moviemaking Studio* to create a short thirty-second film.

First, use cardstock and construction paper to create three separate planes that represent the set's foreground, middle ground, and background. If you are using the *Tabletop Moviemaking Studio*, compose a stage by clipping in a setting marked (C), two "wings" (B) for the middle ground, and a texture in the foreground (A). Look through the proscenium (stage opening) to see how foreground, middle ground and background combine to create a complete scene. Then, clip in the cityscape background, place the middle ground elements such as buildings, and place foreground elements in focus.

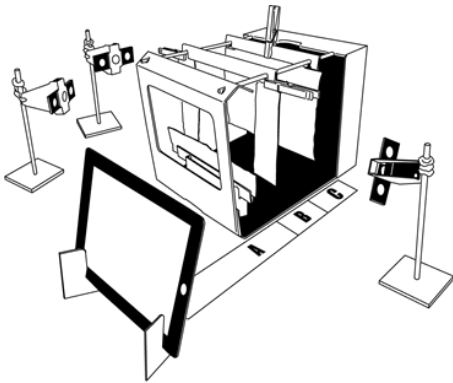
See the PDF "CityScapes Worksheet" to help you design the scale and perspective of the stage. Use the template to draw buildings to scale then work in groups to create a layered metropolis of overlapping buildings. Achieve depth by placing structures on different planes or distances from the proscenium. Place the tallest buildings in the rear to create a vanishing point effect. A combination of two-dimensional cutouts, two-dimensional cutouts with folds, and three-dimensional forms will help fill the frame and create a cityscape with depth. See the following instructional videos for a live demonstration of the process as well as the "Cityscape Tips" PDF saved on the curriculum CD.
Drawing and Coloring the Cityscape – <http://youtu.be/WxNROjwbSYo>
Creating the Pop-Up Background – <http://youtu.be/RJtuixwgewAI>
Staging a Scene – <http://youtu.be/c1kMmOwAm4A>

Reflection

Facilitate a final screening of the movies in class. Discuss the fun and difficulties of creating a set with the illusion of space and depth. How might the process differ if you used objects, backdrops, or real locations in the city to stage the setting? How might the process be similar?

Curriculum Connection

Turn the "Cityscapes Worksheet" into a mathematical grid by assigning values to the individual units. Explore the relative scale of various buildings using ratios to determine different heights.



Classroom Activity

German Expressionism: Art, Film, and History

Enduring Understanding	Artworks often respond to the historical context in which they were created, while artists draw inspiration from the social, political, and economic climate that surrounds them.
Grades	6–12
Time	One to two class periods
Visual Art Concepts	Line, shape, geometric and organic, composition, realism, mood, expressionism, color, collage
Materials	Construction paper, newspapers, magazines, glue, scissors
Talking about Art	View and discuss the <i>The Cabinet of Dr. Caligari</i> (1920) film stills included in the curriculum.

Expressionism was an avant-garde art movement that began in the early twentieth century. Today, the term unites a group of modern artists such as Ernst Ludwig Kirchner, Wassily Kandinsky, Franz Marc, and Paul Klee who used artmaking to express a subjective version of reality, as opposed to an objective or realistic representation. Their works are often characterized by bold, vigorous brushwork, forceful line, and bright color and they evoke feelings of an inner, emotional world. The movement, originating in Germany, responded to Europe's social, political, and economic climate following the death, destruction, and poverty created by World War I.

As with many art movements, expressionism spread to a wide range of art disciplines, including literature, music, theatre, and cinema. German filmmakers largely defined the characteristics of expressionist cinema. The country's political isolation and the government's ban on foreign films sparked demand for film production. One of the most influential German Expressionist films is *The Cabinet of Dr. Caligari*, directed by Robert Wiene and designed by Hermann Warm.

What is your impression of the *Dr. Caligari* set? What types of lines and shapes do you see? How does the angular pathway and triangular architecture guide the viewer's eye throughout the scene? Who are the characters and what action might be taking place? How does the overall composition, or arrangement of visual elements, evoke mood? Chart a list of synonyms that describe the feeling of this scene.

Set designer Hermann Warm worked with painters Walter Reimann and Walter Röhrig to create the disorienting space and perspective characterized by *Dr. Caligari's* aesthetic. Jagged forms, misshapen windows, and heightened shadows form an illogical, geometric composition that parallels the film's illogical narrative.

Compare and contrast this work of cinema with a German Expressionist work of art from LACMA's permanent collection, *Apocalyptic Landscape* by Ludwig Meidner (1913), pictured below. What compositional elements do you notice? What type of mood does the composition evoke? Describe the characters, action, and setting. If the characters were to speak, what would they say? If you were to title this painting, what title would you choose? What might have inspired Meidner to create this painting?



Ludwig Meidner (Germany, 1884–1966) , *Apocalyptic Landscape*, 1913, painting, oil on canvas, 37 1/2 x 31 5/8 in., gift of Clifford Odets (60.65.1b) LACMA

Making Art

Chart a list of issues that concern our contemporary world. What are the feelings surrounding these issues? How can you translate one of these feelings into a work of art?

Choose a piece of colored construction paper to serve as the background of your collage (cool colors, such as blue or green, evoke tranquility or melancholy while warm colors, like red or orange, evoke tension or excitement). Use source material from magazines and newspapers to design your scene. Include geometric or organic (curvy) shapes, cut from patterned paper, along with words. Arrange all of the visual elements on the background, trying different configurations. Once you have reached a desired composition and emotional effect, glue and layer the elements on top of each other.

Reflection

Mount collages in the classroom. Compare and contrast the final works with the original list of current events and emotions. Do the works evoke the intended message?

Curriculum Connection

Use this lesson as an entry point into a history or social sciences unit. Juxtapose works of art with informational texts and talk about the relative strengths and weaknesses of recording history through art versus journalism. Who, in society, witnesses historical events and how do they record their interpretations? What 21st-century tools do the media use today?