TEACHING RESOURCE PACKET

“ICON OF MODERNISM: REPRESENTING THE BROOKLYN BRIDGE, 1883-1950”
ABOUT THIS PACKET

This teacher resource packet is designed to accompany the exhibition “Icon of Modernism: Representing the Brooklyn Bridge, 1883–1950.” The materials in this packet have been developed for students in grades K–12 with activities that support National Performance Standards, as well as the core components of STEAM (Science, Technology, Engineering, Art and Mathematics). The suggested activity ideas are intended as a resource to help you extend your investigations. Please adapt lessons to suit your needs.

This packet includes:

- High-resolution, full-color reproductions of eight works of art from the exhibition
- Information about selected works of art in the exhibition
- Classroom Connections for selected works: ideas for classroom activities related to each work of art
- Lesson plan ideas for studio art, art history, language arts and other components of STEAM for the classroom
- Glossary of related terms

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ABOUT THE EXHIBITION: “Icon of Modernism: Representing the Brooklyn Bridge, 1883–1950”

In the words of scholar Alan Trachtenberg, “the Brooklyn Bridge symbolized and enhanced modern America.” From its opening in 1883 to the present day, artists have repeatedly depicted the bridge as a stand-in for both the city of New York and for the idea of modernity as defined by that city’s urban life. Such representation was particularly true during the period this exhibition treats, when artists were engaging with new forms of visual representation such as impressionism, cubism and precisionism.

Artists utilized newly built structures such as the bridge, the Woolworth building and the Flatiron building in conjunction with these innovative formal techniques to underscore the contemporary nature of their artistic production. By compiling a selection of works in varying media that feature the Brooklyn Bridge from artists on both sides of the Atlantic, this exhibition examines these modes of representation and how artists grappled with a particularly American brand of modernity as both positive and negative from U.S. and European perspectives.

This show features approximately 40 paintings, works on paper and photographs by major American and European artists, primarily borrowed from leading institutions and private collectors. Artists include Georgia O’Keeffe, Edward Steichen, Joseph Stella, George Luks, Jonas Lie, William Louis Sonntag Jr., Reginald Marsh, Louis Lozowick, John Marin, Childe Hassam, Ernest Lawson and Samuel Halpert, among others.

Curator
Sarah Kate Gillespie, curator of American art
ABOUT THE BROOKLYN BRIDGE

In Ken Burns’ 1981 documentary “Brooklyn Bridge,” Paul Goldberg notes “The thing about the Brooklyn Bridge, in the end, is it is just so beautiful.” The beauty of this iconic structure has inspired us for more than 130 years, since its opening in 1883.

The Brooklyn Bridge was designed by German civil engineer John Roebling. Hailed as the eighth wonder of the world, it was the longest suspension bridge and the tallest structure in the Western hemisphere when it was built. Measuring just under 1,600 feet between the two towers, it was 50 percent longer than any bridge previously built. The noble scale of the monument is balanced by its usability as it connects the boroughs of New York and Brooklyn over the East River. More than 120,000 vehicles, 4,000 pedestrians, and 3,100 cyclists cross the bridge each day. This wonder illustrated the possibilities of modern technology when it was built and still inspires us today.

After John Roebling’s ambitious and brilliant design was approved by the New York state legislature in 1867, it took the next 16 years to complete. Due to a series of accidents in the early phases of construction, three different people oversaw the construction of the bridge. John Roebling oversaw only the beginnings of the site survey, as he died from tetanus as a result of a foot injury. His son Washington Roebling then took over the project. Washington was later incapacitated when he suffered from decompression sickness, also known as “the bends,” in a deep underwater tank that was used to access the bottom of the East River. Washington then supervised construction from his bedroom window in an apartment in Brooklyn Heights. His wife, Emily Roebling, acted as liaison between her husband and the rest of the engineering crew, and she saw the construction of the bridge to completion. Over the course of construction, Mrs. Roebling learned about higher mathematics, the calculations of catenary curves, the strengths of materials, bridge specifications and the intricacies of cable construction. She was the first person to cross the bridge by carriage.
SELECTED WORKS
Esther Bubley (American, 1921–1998)

*New York Harbor, Painters at Work on the Brooklyn Bridge, November, 1946, 1946*

Gelatin silver photograph

10 3/8 x 10 1/2 inches (sheet)

Brooklyn Museum, Gift of Standard Oil Company, New Jersey 54.201.4
ESTHER BUBLEY, “NEW YORK HARBOR”

Esther Bubley had an early passion for photojournalism and documentary photography, even emulating the style of Life magazine when she was editor of her high school yearbook in Wisconsin. Bubley studied photography at the Minneapolis School of Art (now the Minneapolis College of Art and Design). After a brief stint as a photographer at Vogue magazine in New York, she worked as a microfilmer for the National Archives and Records Administration and then as a darkroom assistant at the Office of War Information (OWI). With the encouragement of senior photographers there, she moved to taking pictures for the OWI historical section, documenting life on the home front during the war. She won the Best Picture Sequence in the Encyclopædia Britannica/University of Missouri School of Journalism “News Pictures of the Year” in 1948 for her photographic series on the bus system in the Midwest and South. By 1947, Bubley began working for the Children’s Bureau, a federal child-welfare agency. Over the next several years, she contributed thousands of images to its files, and her work appeared on more than 30 covers of its journal, The Child.

In 1949, Bubley won the first-place award in the Encyclopædia Britannica/University of Missouri School of Journalism contest for a second time, for her photo essay on mental illness for the Ladies’ Home Journal. She continued working for the magazine, producing a dozen photo stories for its celebrated series “How America Lives,” which ran intermittently between 1948 and 1960. In 1951, Bubley started freelancing for Life, eventually contributing 40 photo stories, including two cover stories. Bubley was one of the first women to support herself working as a freelance photographer for the major magazines.

Bubley went on to produce many notable photo series, many in the world of medicine: one series documented the Pittsburgh Children’s Hospital, and another notable series featured a Moroccan program to treat trachoma for UNICEF. In 1954, Bubley became the first woman to win the international photo contest sponsored by Photography magazine. Her work was included in Edward Steichen’s monumental exhibition “The Family of Man” (1955, Museum of Modern Art), and Pan American World Airways sent her around the world twice to make images for its corporate photographic library.

In the late 1960s, Bubley reduced her workload, spending more time at home in New York City where she pursued projects of personal interest, producing two children’s books about animals and a book featuring macro photography of plants. In 1991 the Minneapolis College of Art and Design awarded Bubley an honorary doctorate. She died in New York City on March 16, 1998.
Consuelo Kanaga (American, 1894–1978)
Untitled (Pier 27), 1922–24, from the series Downtown New York, 1922–24
Gelatin silver photograph
9 3/4 x 7 1/4 inches (sheet)
Brooklyn Museum, Gift of Wallace B. Putnam from the estate of Consuelo Kanaga, 82.65.420
CONSUELO KANAGA, UNTITLED
(“PIER 27”)

Born in Astoria, Oregon, Consuelo Kanaga came from a family that valued ideals of social justice. After completing high school, she began writing for the San Francisco Chronicle in 1915. Within three years, she had learned darkroom technique from the paper’s photographers and become a staff photographer. She met Imogen Cunningham, Edward Weston and Dorothea Lange through the California Camera Club, and was interested in the fine-art photography in Alfred Stieglitz’s Camera Work. A series of three marriages and one canceled engagement precipitated Kanaga’s periodic relocations between New York and San Francisco, where she established a portrait studio in 1930. While not an official member of the f/64 group, her images were exhibited in its first exhibition at San Francisco’s M.H. de Young Memorial Museum in 1932.

Kanaga was involved in West Coast liberal politics, and when she returned to New York in 1935, she was associated with the leftist Photo League; she lectured there in 1938 with Aaron Siskind, then occupied with his Harlem Document. Her photography was championed by Edward Steichen, who included her in his exhibition “The Family of Man” in 1955 at the Museum of Modern Art. Kanaga’s work was featured in the 1979 ICP exhibition “Recollections: Ten Women of Photography,” and she was the subject of a retrospective at the Brooklyn Museum of Art in 1992.

In terms of photographic technique and depiction of subjects, romantic instincts characterize Kanaga’s work. An advocate for the rights of African Americans and other people of color, Kanaga distinguished her portraits from the documentary images of the Farm Security Administration by conveying her subjects’ physical comfort and personal pride. The tactile sense of volume in her work is reinforced by strong contrasts in printing light and dark forms.

(From https://www.icp.org/browse/archive/constituents/consuelo-kanaga?all/all/all/all/0)
Walker Evans (American, 1903–1975)
Brooklyn Bridge, October 28, 1929
Gelatin silver print
4 x 2 7/16 inches (image)
The J. Paul Getty Museum, Los Angeles, 84.XM.956.6
WALKER EVANS, “BROOKLYN BRIDGE”

Walker Evans became interested in photography as a child and took pictures of his friends and family with an inexpensive camera. Despite this early experience with his Canon, he pursued his passion for literature and aspired to be a writer when he lived in Paris in 1927. After he returned to the United States, he picked up the camera again and began applying his literary experience as well as the new concept of photography as a form of fine art, hoping to capture irony and lyricism as well as the strict geometries of modern art. From the windows of his apartment in Brooklyn Heights, Evans had a clear view of the Brooklyn Bridge.
Jonas Lie (American, b. Norway, 1880–1940)

*Bridge and Tugs*, 1911–15

Oil on canvas

34 1/4 x 41 1/2 inches

Georgia Museum of Art, University of Georgia; Museum purchase with funds provided by C.L. Morehead Jr.

GMOA 2001.179
Jonas Lie (pronounced Lee) began studying art when he was 12 years old in Norway. After his father died, he moved to New York to live with his mother’s family. He continued to study painting in New York and became very influential in the city’s growing art scene.

In a 1927 interview, Lie relayed that his “interest started in buildings, bridges, and city subjects” in about 1910. The bridge seemed to hold particular appeal for the artist, who painted it three times between 1910 and 1914. He tended to focus on the industrial power of the bridge and adjacent waterfront, chronicling the commercial marine activity vital to the city’s economy.

In this work, Lie does not use the light, airy colors one sees in some of his other works, but that may have to do with the subject. Lie portrays the Brooklyn Bridge with tugs beneath it, emphasizing the industrial growth of New York in the early 1900s. One can feel the energy of this scene in its thick, short brushstrokes. Lie’s association with the Ashcan school is also evident. The Ashcan school was a group of artists who worked in New York and sought to portray the realities of the working class and the industrialization of the city. They worked in “ashy” colors and used thick, quick brushstrokes.
Childe Hassam (American, 1859–1935)
*Brooklyn Bridge in Winter*, 1904
Oil on canvas
30 x 34 1/16 inches
Telfair Museum of Art, Savannah, Georgia; Museum purchase, 1907.2
American impressionist Childe Hassam depicted scenes of the urban landscape, including several views of the Brooklyn Bridge. Here, he captures a chilling haze surrounding the bridge. Snow-covered buildings occupy the foreground, and the cables of the bridge are barely evident, though the monumental, iconic Gothic arches remain visible. The opalescent colors of the winter sky reflect off the East River, contrasting with the gritty buildings below.
Joseph Stella (American, b. Italy, 1877–1946)
Study for *New York Interpreted: The Bridge*, 1917–22
Watercolor and pencil on paper
24 x 18 inches
Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington, DC
85.22
Throughout his career, Joseph Stella painted the Brooklyn Bridge, trying to convey the sense of awe he felt when he first saw it in 1896. As a symbol of modernity, it complemented Stella’s involvement in avant-garde movements, particularly futurism. For over two decades, he sketched and painted the bridge, abstracting its towering form. His exuberant strokes captured its energy even as they allude to the triumph of commerce and urban life over the natural world. Returning to the same subject allowed Stella to present his work as a new performance each time while framing it within his past efforts.
John Marin (American, 1870–1953)
*Brooklyn Bridge No. 6 (Swaying)*, 1913
Etching on off-white wove paper
10 3/4 x 8 13/16 inches
Terra Foundation for American Art, The Daniel J. Terra Collection, 1995.15
JOHN MARIN, “BROOKLYN BRIDGE NO. 6 (SWAYING)”

John Marin combined his love of New York City and his interest in modern European art in his repeated images of the Brooklyn Bridge. Marin spent over two decades experimenting with the bridge’s striking industrial composition. He used the geometric pattern of arches and cables as a frame for the city’s skyline, focused on pieces of the structure, or deconstructed it into abstraction. To him, the Brooklyn Bridge was a symbol of the entire city of New York, itself an emblem of modern progress. For Marin, the bridge was a tool to explore innovation, and he emphasized its originality through equally avant-garde methods of making art.
Georgia O’Keeffe (American, 1887–1986)

*Brooklyn Bridge*, 1949

Charcoal and chalk on paper

39 7/8 x 29 1/2 inches

Collection of Sarah and Elie Hirschfeld
GEORGIA O’KEEFFE, “BROOKLYN BRIDGE”

Born in Sun Valley, Wisconsin, Georgia O’Keeffe wanted to be an artist even when she was young. In 1905, she studied at the Art Institute of Chicago. She enrolled in the Art Students League in New York the next year, where she won the William Merritt Chase still-life prize in 1908. O’Keeffe worked briefly in Chicago as a commercial artist and spent a few years working as an art teacher in Texas.

O’Keeffe began to focus on her own work again in 1912 when she took a summer course for art teachers at the University of Virginia, Charlottesville, that was taught by Alon Bement of Teachers College, Columbia University, who introduced her to the teachings of Arthur Wesley Dow. Dow’s philosophy was influenced by the flat shapes and elegant compositions of Japanese woodblock prints. In the fall of 1915, she began teaching art at Columbia College in South Carolina. O’Keeffe’s work developed from Dow’s teachings, and she made a series of charcoal drawings that she sent to a friend in New York. Her friend exhibited the drawings to Alfred Stieglitz, owner of 291 Gallery and a photographer, who then showed them in his gallery.

O’Keeffe moved to New York, began working as a full-time artist, and eventually married Stieglitz. Her work included cityscapes, close-up views of plants and flowers and scenes from Lake George, where she spent her summers with Stieglitz. After a trip to New Mexico in 1929, O’Keeffe fell in love with the Southwest and began spending her summers there instead. Her work began to reflect her time in New Mexico through still-lifes of bones and landscapes of the desert and architecture of the region. When Stieglitz died, in 1946, she moved there permanently. She continued to work until the 1970s, when her sight deteriorated, but she was able to return to her art in 1973, through the help of Juan Hamilton, a ceramicist who assisted her with her work. O’Keeffe died at the age of ninety-eight.

Georgia O’Keeffe was one of the latest American modernists to treat the Brooklyn Bridge. Although better known for her natural subjects, she painted Manhattan repeatedly while she lived there. In 1949, just before her departure to New Mexico, O’Keeffe attempted her last known New York subject: the Brooklyn Bridge. O’Keeffe’s depictions of this iconic New York symbol can be read as an homage to the city that had been her home for so long.
CLASSROOM ACTIVITY IDEAS
STUDIO ARTS LESSON 1: Perspective

ADAPTABLE FOR GRADES K-12

➤ OBJECTIVES
• To create works of art focusing on a specific subject.
• To investigate different perspectives and interpretations.

➤ MATERIALS
• Scrap paper or sketchbooks
• Drawing pencils and erasers
• Pastels in assorted colors
• Charcoal
• Watercolors and paintbrushes
• 11 x 14-inch pieces of heavy drawing paper, one per student
• Drawing boards or pieces of smooth cardboard, larger than 11 x 14 inches, one per student if working outside
• Drafting tape
• A three-dimensional object, or structure (still-life objects, fruit, a chair, etc.)

INTRODUCTION
Since its opening in 1883, the Brooklyn Bridge has been celebrated as a wonder of American technological and artistic achievement. Painters, photographers and printmakers pictured it from varying angles and viewpoints in an effort to encapsulate an era. It can be interesting to see how each person’s interpretation of the same bridge can vary so much. By choosing to focus on the same object, as a class you will be able to see the different ways your classmates represent the object.

CLASS DISCUSSION
After looking at the different works of art in this packet, discuss how they are all inspired by the Brooklyn Bridge from 1883 to 1950. Each work in this exhibition shows the same subject—the Brooklyn Bridge—but they represent many different styles and artistic movements. Discuss the materials and style each artist used.

1. What are some of the differences and similarities you notice about the style each artist used? The materials? The mood?

2. What are some of the different viewpoints artists used in their depictions of the bridge?
3. Why do you think different artists chose to use different materials? What do these different materials change about how you view the bridge in each work?

4. How can the same object inspire different ideas?

**ACTIVITY**

This project will use a single object as the subject for all students’ work and will allow each student to interpret and respond to that object differently through different styles of art.

- Place the object in the center of the room where everyone can see it. Ask students to take a moment to contemplate the chosen object. Then, using scrap paper and pencils, students should start sketching details of it.

- Ask students to make a series of 10 sketches from different viewpoints as they investigate the object.

- Students should choose a sketch and viewpoint to use for their large work and identify the materials they think are most appropriate for what they want to express about the object.

- Students can begin their interpretation of the object. As they complete their works, ask them to think about what mood or idea they were trying to capture in their drawings. They should write a paragraph about this idea.

- Students should present their final work of art to the class in two to five minutes, using the ideas they wrote down.

**FOLLOW-UP DISCUSSION**

- After hearing from classmates about their final work, what are some of the differences you notice among the works?

- Are there works here that you think have similarities? These could be in style, materials or emotion conveyed.

- Do you think you would depict this object the same way in another work of art?

- Did seeing your classmates’ work reveal anything new about the object that you hadn’t noticed before?
STANDARDS

NATIONAL ARTS STANDARD 1:
Generate and conceptualize artistic ideas and work.

NATIONAL ARTS STANDARD 4:
Select, analyze and interpret artistic work for presentation.

NATIONAL ARTS STANDARD 7:
Perceive and analyze artistic work.
STUDIO ARTS LESSON 2: Line and Shape

ADAPTABLE FOR GRADES K-12

➤ OVERVIEW

• Students will understand line design by examining the designs created by the cables of the Brooklyn Bridge, incorporating math, design and art into one lesson.

➤ MATERIALS

• String Art Design worksheet
• Assorted colors of embroidery floss or string
• Thick cardstock cut into 6-inch squares
• Hole punches
• Scissors
• Rulers
• Compass
• Large plastic tapestry needles
• Masking tape

ACTIVITY

• As a class, look at various images of the Brooklyn Bridge, paying particular attention to the shapes and negative space created by the intersecting lines of the cables. Students will create string art that that mimics the designs seen in the works of art in the exhibition.

• Distribute String Art Design worksheet to each student. Students should take a few minutes using their rulers to create different lines through the circle to connect the dots. What kinds of shapes and patterns can they create by connecting different points?

• Distribute cardstock and 2 or 3 colors of string to each student. Students will use the compass to draw a circle at least 4 inches in diameter on the cardstock, then use the hole punch to punch 12 holes along the circumference of the circle.

• Students should choose one color of string to start with and thread it through the eye of the needle. Starting on the back side of the cardstock, they should push the needle through one of the holes and secure the end of the string to the back of the cardstock with a piece of masking tape.
• Students should look at their example sheet and notice where the lines connect on either end of the circles. They should ask themselves, “What kind of pattern do you want to make?”

• Students should continue layering different colors of string and connecting dots to create a pattern. They will share their completed designs at the end of the project.

STANDARDS

NATIONAL ARTS STANDARD 1:
Generate and conceptualize artistic ideas and work.

NATIONAL ARTS STANDARD 4:
Select, analyze and interpret artistic work for presentation.

NATIONAL ARTS STANDARD 7:
Perceive and analyze artistic work.
BROOKLYN BRIDGE STRING ART DESIGN WORKSHEET

Practice your string art line design!

Start at any dot and draw a line through the circle connecting the dots. Notice the different type of shapes and patterns you can create by connecting different points.
LESSON: Technology, Math and Photography

RECOMMENDED FOR GRADES 5–12

➤ OBJECTIVES
- To understand basic black-and-white photography skills.
- To explore technology using digital cameras and aspects of computing.
- To identify geometric shapes in architecture.

➤ MATERIALS
- Enough copies of the photographs in this packet for each student
- Colorful markers
- Rulers
- Digital cameras or cell phones with cameras
- Printer and photography paper
- Computer with an Internet connection
- Google for Education Teacher Account (https://www.google.com/edu/products/productivity-tools/)
- A building to walk around, like a school

INTRODUCTION

When the Brooklyn Bridge was finally finished, in 1883, it had taken nearly 16 years from concept to completion. John Roebling’s design for the bridge was accepted in 1867 and includes cables as well as towers made from limestone, granite and cement. These construction materials create geometric shapes that are especially clear in the three photographs included in this packet.

DISCUSSION

After looking at prints of the photographs included in this packet ask students to notice how each photograph captures a different view of the bridge. With a few exceptions, artists’ representations of the bridge can be divided into these three categories: 1) views of the long sweep of the bridge, as captured by Consuelo Kanaga; 2) a focus on the towers, as captured by Walker Evans; and 3) a scene viewed through the bridge’s grid of cables, as captured by Esther Bubley.

1. What do you notice about these three different photographs?

2. What shapes can you find in the lines created by the cables?
**ACTIVITY**

- Hand out prints of the photographs and color markers. Ask students to highlight 2 geometric shapes with the markers.

- Focusing on Esther Bubley’s photograph, have students use rulers to divide the image into thirds horizontally and vertically (by drawing two evenly spaced horizontal lines and two evenly spaced vertical lines). Notice where the lines intersect. The rule of thirds suggests that these points are the best places to position your subject in photography. Doing so will generally result in a balanced composition.

- Next, focusing on Walker Evans’ photograph, discuss how he uses leading lines to direct our eye to the tower and the skyline on the other shore.

- Have students take a nature walk around the school (or another building) to capture geometric shapes with the cameras. Focus on buildings and other human-made structures, and remember to practice using the rule of thirds and leading lines to balance your composition and direct the viewer’s gaze.

- Have each student select his or her best photograph to print.

- Print each photograph in black and white and display them so the class can take time to view them.

**FOLLOW-UP DISCUSSION**

1. Did you notice new things about the building during the photo walk?

2. How did you use the composition techniques used by Kanaga, Evans and Bubley in your own photography?

**STANDARDS**

**NATIONAL ARTS STANDARD 1:**
Generate and conceptualize artistic ideas and work.

**NATIONAL ARTS STANDARD 10:**
Synthesize and relate knowledge and personal experiences to make art.

**NATIONAL EDUCATIONAL TECHNOLOGY STANDARD 1:**
Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.
ENGINGEERING LESSON: Straw Bridge Design Challenge

RECOMMENDED FOR GRADES 3–12

➤ MATERIALS
- 50 plastic drinking straws per team
- 1 roll of Scotch tape per team
- 100 pennies per team (in a plastic cup, secured with a lid)
- Paper and pencils for sketching

INTRODUCTION

No engineering project is designed and executed by a single person. John Roebling worked with many other architects, engineers and designers to create the Brooklyn Bridge. Your challenge today is to work together as a team to design a bridge made out of plastic drinking straws and Scotch tape. Be sure to consider the look of your bridge. You may add additional decorative elements if you like, as long as they don’t interfere with the functionality of the bridge. The bridge must meet the requirements below.

ACTIVITY & DISCUSSION

- Divide students into teams of 5 and distribute supplies. Each team will have 30 minutes to design and build a bridge using only straws and tape that can support the weight of 100 pennies.

- Show students images of the Brooklyn Bridge and discuss the major components of a bridge.

- What do they notice about the design of the bridge? What do they notice about the way the bridge looks?

- Each team should take a few minutes to sketch bridge designs on the paper provided before starting to build with the straws and tape.
Requirements for the Challenge:

- The bridge must be built from only plastic straws and tape.
- The bridge must be free standing; it cannot be taped down to the tabletop.
- Try to make the bridge as long as possible.
- The bridge must support the weight of 100 pennies.
- The deck of the bridge must be wide enough to hold the plastic cup of pennies.

FOLLOW-UP & DISCUSSION

- Test each bridge to see if it can hold 100 pennies. Try adding more cups of pennies to see if the bridges can hold 200, 300, even 400 pennies!
- What was difficult about this challenge? What was easy?
- What would students do differently next time?
- How could students adapt their design to hold more weight?

STANDARDS

NEXT GENERATION SCIENCE STANDARD:
Engineering Design. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time or cost.
ONLINE RESOURCES AND GLOSSARY
ONLINE RESOURCES ABOUT THE BROOKLYN BRIDGE

Ken Burns’ “Brooklyn Bridge” for Educators
www.pbs.org/kenburns/brooklynbridge/educators/
A site that provides resources for educators related to Ken Burns’ documentary about the Brooklyn Bridge (lesson plans, links to more information, etc.)

Timeline
www.pbs.org/kenburns/brooklynbridge/timeline/
A timeline of events related to the construction of the Brooklyn Bridge

New York City Department of Transportation
A site that provides current information about the Brooklyn Bridge, including planned renovations

The Brooklyn Bridge: A World Wonder
www.brooklynbridgeaworldwonder.com
Information on the history, safety and cultural impact of the bridge

The History Channel
www.history.com/topics/brooklyn-bridge
Videos about the history and construction of the Brooklyn Bridge

*Because of the constantly changing nature of the Internet, we ask that teachers please look at these websites before showing them to their students.*
abstract
Art that looks as if it contains little or no recognizable or realistic forms from the physical world, with a focus on formal elements such as colors, lines or shapes. Artists often “abstract” objects by changing, simplifying or exaggerating what they see.

balance
The ways in which color, shapes and lines are distributed in a work of art.

bridge
A structure carrying a road, path, railroad or canal across a river, ravine, road, railroad or other obstacle.

caisson
A large watertight chamber, open at the bottom, from which the water is kept out by air pressure and in which construction work may be carried out underwater. These were used in building the towers of the Brooklyn Bridge and resulted in workers suffering from decompression sickness, or Caisson disease. At the time, the cause of the illness was unknown.

color
Light waves absorbed and reflected in the things around us. Color is created in paint and other art materials by mixing powdered materials or pigments with another material that will bind it to the canvas or paper.

composition
The way objects are arranged in a work of art.

decompression sickness (DCS)
Also known as the bends or Caisson disease; occurs in divers or high-altitude or aerospace events when the person changes barometric pressure too quickly and dissolved gases (mainly nitrogen) in the body create bubbles. The bubbles can damage just about any body area including joints, lung, heart, skin and brain.

emphasis
Specific parts of a work of art on which the artist wants the viewer to focus.

focal point
A part of the painting that the viewer first sees when he or she looks at a work of art and concentrates on more than the other components of the work.

geometric shapes
Shapes with regular contours and enclosed edges such circles, triangles, rectangles or squares. These shapes have perfect, uniform measurements and often appear in manmade structures.

Great Depression
A period during the 1930s of drastic decline in the economy characterized by decreasing business activity, falling prices and unemployment.

impressionism
This movement, whose name was coined by its critics around 1867 in France, captured the moment that a scene was taking place through light and color. Artists applied unmixed pigments to a canvas coated in pure white, thus increasing the luminosity of each color.

modernism
In art history, this term refers to the philosophies of art made in Europe and the United States during a period beginning in the 1860s, when certain artists began to take radical steps away from traditional art in order to be deliberately different, critical and innovative. Modern art is characterized by changing attitudes about art, an interest in contemporary events as subjects, personal artistic expression and freedom from realism. Modernism can be seen as an attempt to understand the urban, industrial and secular society that emerged during the 19th century in Western society.
**perspective**
1. The art of drawing solid objects on a two-dimensional surface so as to give the right impression of their height, width, depth and position in relation to each other when viewed from a particular point.
2. A particular attitude toward or way of regarding something; a point of view.

**photography**
The process and practice of creating photographs, or pictures made using a camera, in which an image is focused onto film or other light-sensitive material and then made visible and permanent by chemical treatment or stored digitally. There are two types of photographs: analog and digital.

**realism**
A style of art that represents nature accurately as seen by the human eye.

**symbolism**
The practice of using something, usually an object or sign, to represent something else, usually intangible, such as an idea or concept.

**urban**
Connected to a city; many people living in close quarters with businesses nearby