

Lesson Plan Title: Airplanes of the Future!

Grade Level(s): Kindergarten through 4th grade

Field of Specialization: Visual Art

Duration: 45 minutes to an hour

Objectives: Students will be able to recognize and create artwork that celebrates technological achievements.

Visual Art Standard: Historical, Cultural, and Social Contexts

Benchmark: Identify and describe the different purposes that people have for creating works of art.

Visual Art Standard: Creative Expression and Communication

Benchmark: Use the elements and principles of art as a means to express ideas, emotions, and experiences.

Visual Art Standard: Analyzing and Responding

Benchmark: Apply comprehension strategies to respond to a range of visual artworks.

Vocabulary:

Advertisement – an image or message designed to show the best qualities of an event or article.

Barnstorming – an air show featuring stunts and feats in the air.

Materials: Paper, pencils, crayons, markers, color pencils.

Procedures: The instructor will begin by having students look at several examples of posters celebrating aviation events in the early 1900s. *Looping the Loop* has several examples.

Ask students to identify some of the different types of airplanes in the pictures, and to compare and contrast their characteristics. Ask students what capabilities they think particular airplanes might have had (does it look like a fast or slow plane, or could it fly upside down or land on water?). Have them explain which features on the airplanes would support particular abilities.

Following this conversation, ask students to think about modern airplanes, and airplanes of the future. You might possibly discuss the *White Knight*, and other

Lesson Plan Title: Clay Stamps

Grade Level(s): Kindergarten through 3rd Grade

Field of Specialization: Visual Art

Duration: 45 minutes to an hour

Objectives: Students will be able to create a repeating pattern using a stamping process.

Visual Art Standard: Historical, Cultural and Social Contexts

Benchmark: Recognize and describe visual art forms and artworks from various times and places.

Visual Art Standard: Creative Expression and Communication

Benchmark: Demonstrate knowledge of visual art materials, tools, techniques and processes by using them expressively and skillfully.

Vocabulary:

Motif – an element used to create a visual pattern.

Pattern - a design in which lines, shapes, and/or colors are repeated in a visual sequence.

Texture – the arrangement of materials on the surface of an object.

Materials: Clay, pencils, clay-working tools, plastic texture blocks, construction paper, water-based printmaking inks, brayers, trays for printing ink, newspaper.

Procedures: Students will look at the printing press in the Wright brothers' workshop and discuss how it was used. The instructor will explain the working process, and describe the types of work that the Wright brothers created in the workshop.

The instructor can also describe how the printing process has been used in other cultural settings. For example, in Ghana, stamping is used to create the traditional Adinkra cloth, and a similar idea is used in Nigeria for the Adire cloth. Students can be asked where else they might have seen printed patterns or designs (wrapping paper, tablecloths, textiles, quilts, and similar materials have similar design qualities).

Students will be asked to develop a design or set of designs to create a

patterned paper. The instructor will need to demonstrate the process before allowing students to begin.

First, take a small plug of wet clay, about an eighth of a pound, and roll it into a small coil. Press one end of the clay against a table to flatten it. A design can be drawn into this surface with a pencil, or carved with clay-working tools. If plastic or rubber texture plates are available, or items like potato mashers, the bottoms of sneakers, etc, then clay can be pressed against them to create a textured design. Objects like paper clips, washers, and tongue depressors can also be used to create interesting designs in the clay.

Designs can be pressed into on or both sides of the clay plug. If students like, they can create two or three different designs to use in a pattern.

When satisfied with the design in the clay, roll out a thin layer of paint or printing ink on a tray. Press the clay into the ink and then press it against the paper.

Try to create a pattern by arranging the clay stamps in rows. A single clay stamp can be repeated over and over, or two or three stamps can be alternated back and forth.

Set papers aside to dry, and discard clay plugs.

Assessment:

The success of this project can be ascertained through the quality of the artwork. The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child's performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned
Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	
Clean Up	20	

Adaptations (For Students with Special Needs): It might help to have clay plugs rolled out before beginning. The plugs can be stored in a plastic bag to keep them from drying out. Children who have difficulty controlling fine motor skills can still be successful with this project if they are given a variety of textured materials to press clay against. Students with special needs may require extra

supervision as they work with the stamping process.

Possible Connections to Academic Subjects: Social Studies – The group can explore how stamping is used in the Japanese art form known as Gyotaku.

Math – Students can try to identify patterns in numbers and number sequences.

Resources:

www.adinkra.org

Art From Many Hands, by Jo Miles Schuman

Clay Fun: How to Work with Clay, by Carolyn Davis and Charlene Brown

Polymer Clay: 30 Terrific Projects to Roll, Mold, and Squish, by Irene Semanchuk Dean

Super Simple Clay Projects: Fun and Easy-to-Make Crafts for Kids, by Karen Latchana Kenney

Lesson Plan Title: Paint a Hero

Grade Level(s): 5th through 8th Grade

Field of Specialization: Visual Art

Duration: 45 minutes to an hour

Objectives:

Vocabulary:

Materials:

Procedures: The instructor will ask one student to read the following stanzas of the Paul Laurence Dunbar poem, "Frederick Douglass."

Through good and ill report he cleaved his way.
Right onward, with his face set toward the heights,
Nor feared to face the foeman's dread array,--
The lash of scorn, the sting of petty spites.
He dared the lightning in the lightning's track,
And answered thunder with his thunder back.

...

No miser in the good he held was he,--
His kindness followed his horizon's rim.
His heart, his talents, and his hands were free
To all who truly needed aught of him.
Where poverty and ignorance were rife,
He gave his bounty as he gave his life.

The place and cause that first aroused his might
Still proved its power until his latest day.
In Freedom's lists and for the aid of Right
Still in the foremost rank he waged the fray;
Wrong lived; his occupation was not gone.
He died in action with his armor on!

If possible, the stanzas should also be projected or written in large format, so that they can be read by the group as well.

The instructor will lead students in a discussion about Frederick Douglass, his accomplishments, and his contributions to American society.

Students will be asked about the visual imagery in the poem, and will brainstorm

ideas for showing these images in a picture.

The instructor will ask students to reflect on modern heroes, and what kinds of contributions they make to society. Students will discuss these ideas as a group.

The instructor will ask students to select their own hero, and try to draw an image that reflects the qualities that

Assessment:

The success of this project can be ascertained through the quality of the artwork. The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child's performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned
Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	
Clean Up	20	

Adaptations (For Students with Special Needs):

Possible Connections to Academic Subjects:

Resources:

Frederick Douglass: From Slavery to Statesman, by Henry Elliott

Frederick Douglass: A Noble Life, by David Adler

Lesson Plan Title: Family Tree

Grade Level(s): 4th through 8th grade

Field of Specialization: Visual Art

Duration: 45 minutes to an hour

Objectives: Students will be able to depict relationships between individuals in a work of art.

Visual Art Standard: Connections, Relationships, and Applications

Benchmark: Apply and combine visual art, research and technology skills to communicate ideas in visual form.

Vocabulary:

Materials: Paper, pencil, color pencil, or marker.

Procedures: The instructor will begin by taking the group of students to the Wright brother's photo album room in the Dayton Aviation Heritage National Historic Park. The instructor will ask the group to identify the Wright brothers, and then to decipher the relationships between the people in the other photographs. The instructor can discuss the important role that family played in the Wright brother's personal and public lives, and ask the group if they have personal relationships that have deep meaning to them.

The group will also visit the album room for Paul Lawrence Dunbar. A similar discussion will take place here.

After these discussions, the group will return to an activity room. The instructor will show the group a few examples of family trees that show the relationship between the people represented. The group can also work through the process of creating a family tree from scratch.

Once the group has a good understanding of the process, the students will be asked to create a family tree showing their immediate families, and any uncles aunts or grandparents they are familiar with. Students can also be asked to reflect on the role that the people on their family trees play in their lives, and to try to develop symbolic means of showing the importance of the individuals in their family trees.

Students can begin in pencil, and add crayon, color pencil, or marker as the instructor sees fit.

Assessment:

The success of this project can be ascertained through the quality of the artwork (authentic assessment). The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child's performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned
Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	
Clean Up	20	

Adaptations (For Students with Special Needs): A blank family tree can be drawn out, so that students only need fill in the appropriate spaces. Students who are unwilling to share their true family trees might be allowed to create an imaginary one. If students are making up a family tree, then magazine pictures might be used to replace student drawings.

Possible Connections to Academic Subjects: The group could experiment with the game 'Seven Degrees of Separation.'

Resources:

Climbing Your Family Tree: Online and Offline Genealogy for Kids, by Ira Wolfman

Me and My Family Tree, by Joan Sweeney

Lesson Plan Title: *Homage to Bleriot*

Grade Level(s): Kindergarten through 4th grade

Field of Specialization: Visual Art

Duration: 45 minutes to an hour

Objectives: Students will be able to interpret and create visual symbols to communicate ideas.

Visual Art Standard: Historical, Cultural, and Social Contexts

Benchmark: Identify art forms, visual ideas, and images and describe how they are influenced by time and culture.

Visual Art Standard: Creative Expression and Communication

Benchmark: Develop a range of subject matter and ideas to communicate meaning in two- and three-dimensional works of art.

Visual Art Standard: Analyzing and Responding

Benchmark: Identify and describe the visual features and characteristics in works of art.

Vocabulary:

Materials: Reproduction of Robert Delaunay's *Homage to Bleriot*, pencils, sketch paper, color pencils, marker, or pastel

Procedures: The instructor will show the group a large reproduction of *Homage to Bleriot*, and ask to reflect on the work. The instructor will ask what shapes, colors, and designs are being used in the painting. Students will also be given an opportunity to tell the group what each of these items means in his or her interpretation.

The instructor will take a few moments to explain what the symbols in the painting meant to the artist. The entire work was a celebration of technological progress, as represented by the airplanes and Eiffel tower. Bleriot's flight across the English Channel was a significant event in Europe. The circles represent the movement of propellers, the sun, and the rose windows in cathedrals. The variety of colors are intended to represent the idea that unity is present even in opposites.

The instructor will brainstorm with students on recent important technological

innovations. Examples might include the Internet, cell phones, solar panels, renewable fuel systems, smart cars, and other innovations.

Students will be asked to create a painting that celebrates one of these technological achievements. The instructor may ask students to start by sketching out ideas on practice paper, or may have students begin drawing directly on the final paper.

Assessment:

The success of this project can be ascertained through the quality of the artwork. The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child's performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned
Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	
Clean Up	20	

Adaptations (For Students with Special Needs): Peer groups can be used to assist students who struggle to develop ideas, or have difficulty expressing themselves in a visual format.

Possible Connections to Academic Subjects: Graphic design – The group might explore the idea of graphic design, and consider how their ideas could be used on a variety of materials and products. Robert Delaunay's wife, Sonia Delaunay-Terk, used many of the color and shape patterns she and her husband developed on articles of clothing. Students could think about how to transpose the images they used in their paintings on shirts, pants, or shoes.

History – The group could explore other technological innovations, and the ways that artists have celebrated them in a visual form.

Resources:

The Eiffel Tower, Robert Delaunay, by Milos Cvach and Sophie Curtil

Robert Delaunay, by Michel Hoog

Sonia Delaunay: Artist of the Lost Generation, by Axel Madsen

Sonia Delaunay: Fashion and Fabrics, by Jacques Damase

Lesson Plan Title: Mapping a Neighborhood

Grade Level(s): 4th through 8th grade

Field of Specialization: Visual Art

Duration: 45 minutes to an hour

Objectives: Students will be able to recognize, identify, and draw significant landmarks on a map.

Visual Art Standard: Creative Expression and Communication

Benchmark: Create two- and three-dimensional original artwork that demonstrates personal visual expression and communication.

Vocabulary:

Compass – a tool used to identify which directions are north, south, east, and west, using a magnetic needle.

Landmark – a significant object or building in an environment.

Map Legend – a collection of symbols used to read a map.

Materials: Pencils, sketch paper, clipboards, drawing paper, crayons, markers, color pencils.

Procedures: Before taking a walk through the neighborhoods surrounding the Dayton Aviation Heritage National Park, identify six significant landmarks in the area (for example, the bicycle shop, Ed Sines' house, Lorin Wright's house, the family landsite, the site of the original Mike Sells home and factory, etc). Familiarize the group with the four directions of the compass, and point out which directions are north, south, east, and west as they are standing on the plaza. Challenge the group to create a map of the six sites you have identified, and begin the neighborhood tour.

It might also help to show the group a few examples of some basic maps, which show significant objects in relation to one another, but are not cluttered with too much detail. Depending on their skill level, the group could also work through some basic map-drawing skills prior to taking the walk.

The instructor will ask the group to point out which direction they are taking at each turning (Are we going north now?). Allow students to make quick sketches

along the walk. If compasses are available, they might be fun. If only one or two are available, a student can be appointed to act as direction finder.

At each of the significant sites, identify the location and provide some background information about its importance.

When the tour is over, allow students to use the sketch they made to create a new map. Ask them to show all six sites on their map, and to try to place them in relation to one another.

Assessment:

The success of this project can be ascertained through the quality of the artwork (authentic assessment). The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child's performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned
Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	
Clean Up	20	

Adaptations (For Students with Special Needs): Students can work as a team to help increase success. Alternatively, a basic map of the neighborhood, leaving the areas of the six sites blank, could be drawn out, copied, and passed out to the group. The starting point of the tour can be identified on this map, and the basic route sketched out. Students would then only need to identify the stops made along the route.

Possible Connections to Academic Subjects: History – Students will be learning the historical significance of individual landmarks. This can be expanded into a research project, where students are encouraged to explore the history of the people associated with the landmarks, or to find other historically significant landmarks.

Students could explore the history of mapmaking, and discover how maps have been used throughout time.

Math – Students can enhance their maps using a grid and attempting to use spatial relationships and scale to create a more accurate map.

Resources:

Maps and Mazes: A First Guide to Mapmaking, by Gillian Chapman and Pam Robson

Maps in History, by Walter Oleksy

Walk Around the Block, by Ginny Graves, Karen Dell Schaubert, Punky Beasley, and Dean W. Graves

What's in a Map?, by Sally Cartwright, illustrated by Dick Gackenbach

Lesson Plan Title: Make Your Own Monument!

Grade Level(s): K-8

Field of Specialization: Visual Art

Duration: 45 minutes to an hour

Objectives: Students will be able to interpret and develop visual symbols to celebrate personal and public achievements.

Visual Art Standards: Creative Expression and Communication

Benchmark: Demonstrate knowledge of visual art materials, tools, techniques, and processes by using them expressively and skillfully.

Visual Art Standard: Analyzing and Responding

Benchmark: Apply comprehension strategies to respond to works of art.

Vocabulary: Hero

Monument

Symbol

Materials: Sketch paper, pencils, ModelMagic, sculpture tools

Procedures: The group will assemble in front of the ceramic mural in front of the Dayton Aviation Heritage National Historic Park. The instructor will lead a discussion in which students are asked to identify the symbolic images in the mural, and to guess what those symbols are supposed to mean to the viewer. Some of those symbols might include a printing press, a quill pen, an inkwell, a bicycle, and a book. The group should also discuss the individuals depicted in the mural.

If the group is looking at pictures of the monument, they might also look at pictures of the sculpture of Orville Wright holding a propeller, the Wright Memorial in Dayton, Ohio, and others. Students can be asked to dissect these monuments in terms of their symbolic imagery and the historical references they contain as well.

Following this conversation, the group will assemble in an art space. The instructor will ask all students to select their own historical hero. If students like,

they can use Paul Laurence Dunbar, the Wright brothers, or another local hero. Students will need to reflect on the contributions that their hero has made to society, and to develop a symbol or symbols to express their contributions. Students can sketch ideas for a monument on paper first, or begin sculpting their ideas in ModelMagic. The group will be given 20 to 30 minutes to work on a small model of their own memorial to a local hero.

Assessment:

The success of this project can be ascertained through the quality of the artwork. The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child’s performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned
Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	
Clean Up	20	

Adaptations (For Students with Special Needs):

Possible Connections to Academic Subjects:

Resources:

Children Make Sculpture, by Elizabeth Leyh

Make Sculptures!, by Kim Solga

1, 2, 3 I Can Sculpt!, by Irene Luxbacher

Lesson Plan Title: Mood Masks

Grade Level(s): Kindergarten through 4th grade

Field of Specialization: Visual Art

Duration: 45 minutes to an hour

Objectives: Students will be able to create visual representations of a range of emotions.

Visual Art Standard: Historical, Cultural and Social Contexts

Benchmark: Recognize and describe visual art forms and artworks from various times and places.

Visual Art Standards: Creative Expression and Communication

Benchmark: Demonstrate knowledge of visual art materials, tools, techniques, and processes by using them expressively and skillfully.

Vocabulary:

Emotion -

Materials: Construction paper, scissors, glue, markers, crayon, string, fabric pieces, craft materials, copies of Paul Laurence Dunbar's *We Wear the Mask*.

Procedures:

Direct Instruction (10 minutes): The group will listen to a few stanzas of *We Wear the Mask*. Students will try to interpret the message of the poem. The instructor may share the social context in which Dunbar lived, and its implications for African-Americans.

The instructor will ask students if they have ever been angry or upset, but unable to express their emotions. The class will discuss the idea of having a visual representation of their mood, or of having an artwork with the power to change someone's emotions from one to another.

Students will discuss their favorite emotions, and what kinds of images best represent them.

Individual Work Session (30 minutes): The instructor will demonstrate some mask-making techniques, and let students begin creating their own mood masks. After selecting an emotion, students will cut a mask base out of construction paper. Facial features and ornamentation can be cut and glued with other colors of paper, or drawn on with crayon and marker. Additional ornamentation can be

added with string, buttons, fabric pieces, or other craft materials.

Clean Up (5 minutes): Wet masks will need to be stored on a drying rack or flat surface, scraps stored in a bucket or discarded, and scissors, glue, and other materials put away.

Assessment:

The success of this project can be ascertained through the quality of the artwork. The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child's performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned
Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	
Clean Up	20	

Adaptations (For Students with Special Needs): Mask forms can be cut and ready for use before the project begins. Simple shapes can also be cut and made available. Students could also use pictures from magazines to make features on their masks.

Possible Connections to Academic Subjects: Social Studies – The group could examine the use of totems in Native American and other cultures.

Resources:

Complete Poems of Paul Laurence Dunbar, by Paul Laurence Dunbar

Crafty Masks, by Thomasina Smith

Hour of Freedom: American History in Poetry, compiled by Milton Meltzer

Making Masks, by Renee Schwarz

Making Masks, by Violane Lamerand

Masks!, by Alice Flanagan

Masks Tell Stories, by Carol Gelber

Lesson Plan Title: Printmaking - Landscapes

Grade Level(s): 5th through 8th grades

Field of Specialization: Art

Duration: 45 minutes to an hour (This project may work better in two 45 minute periods)

Objectives: Students will become familiar with the printmaking process, and be able to recognize and create landscapes and seascapes.

Visual Art Standard: Historical, Cultural, and Social Contexts

Benchmark: Compare and contrast the distinctive characteristics of art forms from various cultural, historical, and social contexts.

Visual Art Standard: Creative Expression and Communication

Benchmark: Achieve artistic purpose and communicate intent by selection and use of appropriate media.

Vocabulary:

Printmaking – a process for making multiple copies of an image, using a print block and ink.

Landscape – a picture showing a large area of land, and depicting various features of local geography.

Seascape – a picture showing a large area of water, showing aspects of its surface or inhabitants.

Materials: Inovart printfoam or scratch-foam blocks (Styrofoam trays cut into rectangles also work), manila paper cut size of printblocks, white construction paper or printmaking paper cut to same size, water-based printing inks, brayers, barens or wooden spatulas, large tray with water, stack of large newsprint to use a blotter paper, trays for spreading ink, newspaper.

Procedures:

Direct Instruction (10 minutes): Have students examine the landscape print that Orville Wright made as a young man. Ask them to identify some its features, and try to describe the process that was used to create it. Share examples of other landscape and seascape prints, like those by Katsushika Hokusai. Have students brainstorm some ideas for making their own landscape pictures.

Individual Work Period (20 minutes): The instructor will need to demonstrate the printmaking process.

First, the artist makes a sketch on practice paper. Once the artist is satisfied with the image, the same picture is drawn on the Styrofoam block (you can use tracing paper, and trace the image on the block, but I have not been happy with this process).

Draw very lightly with a pencil or pen, and then press the lines more deeply into the block. If the lines are too shallow, the image will not transfer onto the print paper.

Point out that the image will be reversed in the final print. As a result, words may pose a significant challenge. The instructor may not want to allow the use of words. A finished example of a print block and final print can help illustrate this point.

Once the block is finished, place a piece of white construction paper or printmaking paper in the tray of water. Let it soak briefly, then drip dry. When the excess water has drained off, place the paper in the large newsprint and press it lightly to dry. The paper needs to be damp, but not soaking wet in order to successfully take the ink from the print block. Experiment with this process prior to working with a group of students.

Using a brayer, spread a thin layer of ink on a tray. Roll in perpendicular lines to get good coverage. Roll the ink onto the print block, again using perpendicular lines.

Place the damp paper on top of the print block carefully, and press it down. Rub the entire surface with a wooden spatula or baren to get an even print transfer. Pull the print off of the block and place on a drying rack or table.

Students can clean and alter their block, or make additional prints with different colors of ink or paper.

Clean Up (10 minutes): Students will need to wash print blocks, and place all wet materials on a drying rack.

Assessment:

The success of this project can be ascertained through the quality of the artwork. The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child's performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned

Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	
Clean Up	20	

Adaptations (For Students with Special Needs): Some students may need assistance from an adult or responsible peer walking through the steps of the process. The nature of the image can be altered as well. Some students may only be able to draw a series of lines. A print can be made from any image, so long as the lines are sufficiently deep in the print block.

Possible Connections to Academic Subjects: History – The group can explore the importance of the printing press, and the impact it had on the publication and spread of books.

Students can also explore the impact of Japanese prints on the Impressionist artists in the late 1800s.

The instructor might ask students to think about other technological advances that have changed the way artists think about and create art (cameras, televisions, film, the internet, and so on).

Resources:

The Man Who Painted A Mountain, by Deborah Kogan Ray

Hokusai: Prints and Drawings, by Matthi Forrer

Simple Printmaking, by Peter Weiss

The History of Printmaking, by Jennifer Riggs

Lesson Plan Title: Rose Window (Radial Design)

Grade Level(s): Kindergarten through 4th grade students

Field of Specialization: Art

Duration: 45 minutes to 1 hour (two separate 45 minute sessions would be ideal).

Objectives: Students will be able to recognize and create radial designs, and identify specific cultural artifacts that utilize radial designs.

Visual Art Standard: Historical, Cultural and Social Contexts

Benchmark: Recognize and describe visual art forms and artworks from various times and places.

Visual Art Standards: Creative Expression and Communication

Benchmark: Demonstrate knowledge of visual art materials, tools, techniques, and processes by using them expressively and skillfully.

Vocabulary:

Symmetry - a composition in which two sides are equally balanced.

Radial design – a composition in which equal parts spread out from a central point.

Materials: Wax paper cut in circles, watered-down glue, watercolor brushes, colored tissue paper cut into small squares, buckets, black construction paper cut in squares, scissors.

Procedures:

Direct Instruction (5 to 10 minutes): The instructor will have students look at the bicycle gears in the Wright brothers' bicycle shop. Students will be asked to identify elements of the designs in each gear. As part of this conversation, students can identify and define the terms 'symmetry' and 'radial design.' The instructor will then show the group photographs of rose windows, and ask students to compare the designs in the windows with those of the bicycle gears. After comparing and contrasting the two forms, students will be asked to create their own rose window.

Individual Work Period (20 minutes): The instructor may need to demonstrate

some of these steps. Students will cover a circle of wax paper with cut tissue paper squares. The tissue paper can be glued using brushes to spread watered-down glue. Once the entire sheet of wax paper is covered, the students will cut a rose-window design out of the construction paper.

Fold the black square into a triangle. Take one bottom point and fold it between the top and opposite bottom points. Fold the opposite side over this angle, keeping all sides even. The result should be a triangle with three separate points sticking out of the top.

Cut the top points off in the shape of an arc. You want the shape to result in a circle. You can test your success by opening the shape, and refolding it to proceed. Cut shapes out of both sides. The more cuts you make, the more interesting your design will look. Students may need to practice on a few separate sheets before mastering the process and finding a design they like. For large groups and short periods of time, some folding and cutting may take place before students arrive.

Glue the construction paper on top of the tissue paper. If possible, wait until the tissue paper has dried, but this is not necessary. Student names can be written on manila tape and placed on the back of the wax paper, or written in white color pencil on the black construction paper.

Dried rose windows can be stacked and pressed under books to flatten out, and then be placed in a glass window for display.

Clean-Up (5 minutes): All wet materials will need to be stored on a drying rack similar device, brushes should be washed out, and used glue dumped or poured into a container.

Assessment:

The success of this project can be ascertained through the quality of the artwork. The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child's performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned
Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	

Clean Up	20	
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Adaptations (For Students with Special Needs): The instructor can assist students with folding and cutting as needed, or ask a responsible peer to assist students with special needs. If paraprofessionals are available, they can work alongside these students.

Possible Connections to Academic Subjects:

Social Studies – The group can explore the role of churches and church ornamentation in Europe.

History - Students might also explore the evolution of industry in America. The Wright brothers built the bodies of their bicycles from scratch. Compare their production process with contemporary bicycle production, and with the introduction of the assembly line in automobile production. How did the assembly line revolutionize American industry? Who was responsible for this dramatic change? What connection did he have with the Wright brothers?

Resources:

The Rose Window, by Painton Cowen

www.fotosearch.com/photos-images/rose-window.html

privately owned aircraft that have the potential to go into low-earth orbit. Ask the students to imagine their own kinds of aircraft. Could an airplane go underwater? Could you fly a car to the moon? As a group, brainstorm some ideas for showing how an airplane could do something special.

Have students select a special kind of plane, and create an illustration showing its capabilities.

The conversation might also focus on the barnstorming features of early aviation events. The group could discuss how these events demonstrated the capabilities of the aircraft, and compare them to events like the Dayton Air Show and the Rhinebeck Aerodrome.

Assessment:

The success of this project can be ascertained through the quality of the artwork. The instructor can also ask a series of questions regarding the objectives of the lesson to determine how well students have comprehended the material.

Alternatively, the rubric below can be used to rate each child’s performance during the working period.

Art Rubric		
Category	Possible Points	Points Earned
Craftsmanship	20	
Time On Task	20	
Following Assignment Guidelines	20	
Use of Materials	20	
Clean Up	20	

Adaptations (For Students with Special Needs): N/A

Possible Connections to Academic Subjects: History – The group can explore how the Wright brothers approached air shows, and how their achievements were celebrated in posters, advertisements, and other visual works of art.

Science- Students can research how engineers experiment with airplane design, and achieve particular results with their aircraft.

Resources:

The History of the Airplane, by Barbara Somerville

Looping the Loop: Posters of Flight, by Henry Serran Villard and Willis M. Allen, Jr.

Return to Rhinebeck: Flying Vintage Aeroplanes, by Mike Vines

Space and Flight Experiments, by Louis V. Loeschig

www.olderhinebeck.org