

3rd and 4th Grade Fraction Project

9 Week Arts Integration Unit

Standards:

3rd Grade Math NF #3: Explain equivalence of fractions in special cases and compare fractions by reasoning about their size using denominators of 2, 4, 6, and 8.

4th Grade Math NF #2: Compare two fractions with different numerators and different denominators, e.g. by creating common denominators or numerators or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with $>$, $=$, or $<$ and make conclusions by using a visual fraction model.

3rd Grade Visual Arts Produce #1: Utilize a variety of processes and media in the production of art work.

3rd Grade Visual Arts Produce #5: Demonstrate appropriate safety, care, and use of art materials and equipment.

4th Grade Visual Arts Produce #3: Apply the elements of art and principles of design, including rhythm, movement, and emphasis, in the creation of works of art.

4th Grade Visual Arts Respond #6: Compare different interpretations of the same subject or theme in art.

3rd Grade Language Arts

#23 Write informative or explanatory texts to examine a topic and convey ideas and information clearly. [W.3.2]

b. Develop the topic with facts, definitions, and details. [W.3.2b]

d. Provide a concluding statement or section. [W.3.2d]

#25 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.

#32 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. [SL.3.2]

4th Grade Language Arts

#23 Write informative or explanatory texts to examine a topic and convey ideas and information clearly. [W.4.2]

a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. [W.4.2a]

b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. [W.4.2b]

d. Use precise language and domain-specific vocabulary to inform about or explain the topic. [W.4.2d]

e. Provide a concluding statement or section related to the information or explanation presented. [W.4.2e]

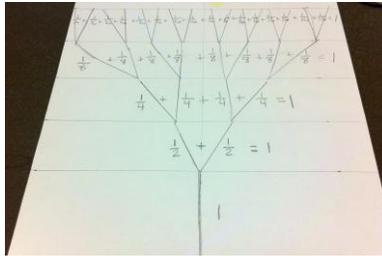
Review Activities:

Review multiplication tables for 2, 4, 6, and 8 in circle time activities including backwards counting and bean bag games. (covered in teacher workshop sessions) Ideally students will spend about 15 minutes a day on these activities for a week or two before the first art tree lessons and continue throughout the lessons. **3rd and 4th Grade Teacher Leaders

First Fraction Tree Lesson:

** See “Instructions for Initial Fraction Tree” hand-out and “Fraction Review Worksheet” hand-out. (1-2 class periods)

** 3rd and 4th Grade Teacher Leaders and Art Teacher Leaders



First Observational Drawing Lesson:

Materials: 9”x12” drawing paper, pencils, real tree or photos of trees

Students go outside (or look at a tree on the smartboard) and review the parts of a tree and sketch a tree from observation for 15 minutes. On the back of the drawing, ask the students to describe their experience with drawing each part. (1 class period)**Art Teacher Leaders

Lesson 2:

Materials: 12”x12” drawing paper, chalk pastels, tempera sticks, sharpened pencils or paperclips for scratching
Guide students through this chalk pastel drawing step-by-step. Start with yellow background, add blue to the bottom 1/4 of the paper to create green. Guide students to use tempera sticks overlapping red, yellow, and blue to form a brown trunk and symmetrically placed branches gradually thinning the width of each branch as they feather out across the page. Students will next use black or brown tempera sticks to draw an even number of birds’ nests on the outermost branches of their trees and use a paperclip to scratch through the nests for a sgraffito texture. Using various colors of tempera sticks, students will

add birds to the other outermost branches leaving at least one or two branches empty. (2 class periods)**Art Teacher Leader

Lesson 3:

Students will complete “My Tree Chart” with the guidance of both classroom and art teachers. Students and teachers read and solve the questions from the “Example Word Problems” as a whole group. Divide into small groups. Each small group will write a word problem using fractions to share with the class. (2-3 class periods) ** Both Classroom and Art Teacher Leaders

Lesson 4:

Materials: 12”x12” tracing paper, sharpies, finished tree drawings, list of art vocabulary

Students make a tracing paper drawing labeling the tree with art vocabulary as guided by the art teacher to introduce and review art vocabulary.

Art Vocabulary: symmetry, foreground, background, movement/direction (vertical, horizontal, diagonal), primary colors, secondary colors, neutral colors, blending. (1 class period) **Art Teacher Leader

Lesson 5:

Materials: 12”x12” drawing paper, chalk pastels, tempera sticks

Next the students will start a tree drawing that incorporates pattern, rhythm and blending techniques with chalk pastels and tempera sticks. Students will first create spirals in chalk pastels following the order of colors on the color wheel starting in the bottom left corner with red and working clockwise with purple, blue, etc. until color has been added throughout the design ending with orange next to the original red spirals. To complete the background, students will blend the colored lines to fill all white space, but maintain the integrity of each color. (1 class period) **Art Teacher Leader

Lesson 6:

Materials: same as Lesson 5, powerpoint slide show

Students will next study *Starry Night* by Van Gogh and analyze how the back light creates a silhouette of any object (such as the tree) that is between the light source and the viewer.

Students will look at Gustav Klimt's *Tree of Life* painting and compare the use of spirals in his work with the use of spirals in Van Gogh's work. Students will draw a curvilinear tree that emphasizes the curves of the spirals in the background using black tempera sticks on top of the spiral background. Images are part of a slide show that students will see again to continue comparing and contrasting the two works. (1 class period)**
Art Teacher Leader

Lesson 7:

Students review the two paintings from the slide show, and continue to compare and contrast the two pieces looking at each element of art as well as design principles such as balance and movement. Students work with a partner to complete a review worksheet. (1-2 class periods) ** Art Teacher Leader



Lesson 8:

Critique/Reflect: Compare and contrast the two finished pieces using a Venn diagram. (group activity- 20 minutes) Then use a web to plan a paragraph that describes one of the pieces including a topic sentence, three sentences that give specific details, and a concluding sentence. (2-3 class periods)**Students do the Venn diagram and start the web with the art teacher and the finished web and paragraph with the classroom teacher.

Lesson 9:

Final Assessment: Unscramble the steps of the artistic process and self-assess each step using a graphic organizer. (1 class period) **Both art teacher and classroom teacher

Lesson 10:

Post-Assessment visual art activity: Students will do another drawing of the same tree they drew at the start of the project. Students will write a final statement on the back addressing the differences between their first tree drawing experiences and this final drawing.

Teacher post-project assessments and activities: art teacher and classroom teacher will together create a display of the unit in the hallway or library to include: SAMPLES OF pre and post assessment tree drawings, chalk/tempera drawings, Venn diagrams, paragraphs, tracing paper drawings, math problems, and worksheets (at least one item from each student)

*** Placement of this exhibit should be predetermined with approval of administration

Additional Activities:

- ◆ **Guest Artist:** Bring in a guest artist who works with wood or trees/plants in some way to make their art. For example, the Montevallo artist that carves fallen tree branches with a chain saw could come do a group demonstration after the project. The students could show and tell their art projects/project display pieces to the guest artist before the demo.

- ◆ **Museum Field Trip:** (*Intersecting Lines* tour and studio lesson) **Described in additional attached documents

***Ideally we could videotape the teacher workshop session leading up to this unit, then videotape portions of the students working (with correct permission forms, etc.) and videotape the guest artist visit to share with the other schools in the system.