Weather
integrated art/science lessons
first grade

Developed by Art Integration Mentor participants:
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An Educational Service District 105 ArtFusion Art Integration project
The Art-Science Integration project

Art Integration Mentor Project
The ArtFusion Art Integration Mentors (AIM) project, in collaboration with Allied Arts of Yakima, provides regional classroom teachers with in-depth art integration training. AIM engages classroom teachers in the arts by delivering hands-on visual arts experiences that teach the elements of art and principles of design. Teachers team up with a regional art mentor who assists classroom educators in developing and implementing an integrated art lesson to their students. Teachers demonstrate an understanding of the elements of art and principles of design, which allows them to equip students on those skills through integrated arts instruction.
Find more information at http://www.artfusion.us.

What is Art Integration?
Art integration is instruction that integrates content, skills and specific state outcomes from the arts—dance, music, theater, and the visual arts—with other core subject area outcomes. Art integration occurs when there is a seamless blending of the content and skills of an art form with those of a co-curricular subject.

Within the AIM project, art integration involves teachers of non-arts subjects working alongside arts specialists and local artists to create collaborative lesson plans that infuse the visual arts into non-arts subjects such as math, science, language arts and social studies. In arts integrated classrooms, students score higher on achievement tests and demonstrate an increase in critical thinking skills, self-confidence and retention. Visit our Arts Education Research page at the ArtFusion website (www.artfusion.us) for more information.
Lesson Title - Using Art Elements with Clouds in Weather

Author(s) - Charlene Scott & Julie Fry

Grade - 1

Art EALRs - 1- The student understands and applies arts knowledge and skills in visual arts

Visual Arts Component - 1.1: Understands and applies arts concepts and vocabulary, 1.2: Develops arts skills and techniques

Art GLE - 1.1.1-line, 1.1.2-shape & form, 1.1.3-value, 1.1.4-texture, 1.1.5-space, 1.1.6-color

Integrated Subject - Science 1- Systems

Subject EALR - Systems thinking makes it possible to analyze and understand complex phenomena. Systems concepts begin with the idea of the part-to-whole relationship in the earliest grades, adding the ideas of systems analysis in middle school and emergent properties, unanticipated consequences, and feedback loops in high school.

Searchable Keywords - Weather, cirrus, stratus, cumulus, classification, similarities, differences, color, size, shape, texture

Visual Art Objective - Students will understand how to use art elements to draw and/or sculpt realistic cirrus, cumulus and stratus cloud representations.

Integrated Subject Objective - Students will understand how to classify clouds based on their properties.

Vocabulary - Color, size, shape, texture, height from ground, line, form, value, space, clouds, cirrus, cumulus, stratus

Materials - White construction paper (9 X 18) pre-folded into thirds, cotton balls, bottled white glue, crayons, blue construction paper from science kit (also pre-folded in thirds), blue tempera paint or water color (watered down for easy coverage), wide paint brushes, cups for tempera, drawing pencils, paper towels

Historical Connection

1. Make observations of images from a general Google search of the word ‘Clouds’. In large group, discuss cloud properties: color, size, shape, texture, height, contour lines, form, value and space.

2. View “La Prominade” by Claude Monet 1876 on the Art Fusion Timeline. In large group, discuss cloud properties in the background.

Assessment Criteria

Students will use their art piece while discussing properties of clouds, naming at least 4 of the 6 art elements.
Teaching Procedure

Proceed with Weather kit’s lesson 13 up to ‘Final Activities’. Adapt Final Activities by using one or both of the following lessons:

**Lesson 1: Sculpting with Cotton**

a. State learning target, “Students will understand how to use art elements to sculpt realistic cirrus, cumulus and stratus cloud representations”.

b. Make observations of cloud images from Art Fusion Timeline and on Google images.

c. Pre-fold the 8 1/2 X 11 blue construction paper from the science kit into thirds. Give each student 1 sheet, bottled white glue and 3 cotton balls (one for each cloud type).

d. Ask students to lay paper horizontally on their desk. Model for students how to sketch a horizon line across their paper using a drawing pencil. Model how to draw mountains, trees and tall building using various types of line.

e. Model how to unroll 1 of the cotton balls and stretch it out to represent cirrus clouds. Discuss properties of these clouds, long lines, wispy, high from the ground, and usually white. Glue cloud at the top of the 1st third, above all images on the horizon.

f. Model how to unroll and sculpt a cumulus cloud model, with a poofy top and flat bottom. Discuss properties. Students may create realistic images they have seen in the past. Glue near the middle of the next third but still not touching anything on the horizon.

g. Next, model with the last cotton ball how to sculpt a thick, heavy shape of a stratus cloud. Glue in the last third, covering part of the horizon images to depict how these low clouds sometimes cover mountains, buildings and trees.

h. Finally, have students label each cloud in the upper section of each third.

**Lesson 2: Crayon Relief with Color Wash**

a. State learning target, “Students will understand how to use art elements to draw realistic cirrus, cumulus and stratus cloud representations”.

b. Make observations of cloud images from ArtFusion Timeline and on Google images.

c. Pre-fold 12 X 18 white construction paper into thirds. Give each student 1 sheet, access to crayons and drawing pencils.

d. Ask students to lay paper horizontally on their desk. Model for students how to lightly sketch a horizon line across their paper using a drawing pencil. Model how to draw mountains, trees and tall buildings using various types of line. Have students add color to details using crayons.

e. Using a drawing pencil, model how to lightly sketch cirrus clouds in the upper first third. Discuss properties of these clouds, long lines, wispy, high from the ground.

f. Using a drawing pencil, model how to lightly sketch cumulus clouds with a poofy top and flat bottom, near the middle of the next third but still not touching anything on the horizon. Discuss properties of these clouds. Students may create realistic images they have seen in the past.

g. Next, using a drawing pencil, model how to draw a thick, heavy shape of a stratus cloud, in the last third, covering part of the horizon images to depict how these low clouds sometimes cover mountains, buildings and trees.

h. When sketches are complete, model how to completely cover the cloud sketches with a white crayon. (It would be appropriate to use a gray crayon when tracing the stratus cloud image.) *Remind students to completely cover images with heavy crayon coverage because they are going to ‘wash’ the whole paper with blue paint in order to reveal their clouds.

i. Finally, have students label each cloud in the upper section of each third.

j. Set out cups of watered-down blue tempura or water color paint for the washing step. Lay out paper towels so that students fully cover the edges of their skies.

k. Model how to brush the background from side to side with long sweeping brush strokes.
Lesson Title - “Four Seasons” play with movement to music in Weather

Author(s) - Charlene Scott & Julie Fry

Grade - 1

Art EALRs - 3- The student communicates through the arts.

Visual Arts Component - 1.1: Understands and applies arts concepts and vocabulary, 1.2: Develops arts skills and techniques, 1.4: Understands and applies audience conventions in a variety of arts settings and performances, 2.1: Applies a creative process in the arts, 2.2: Applies a performance process, 2.3: Applies a responding process

Art GLE - 1.4.1-Audience conventions, 2.1.1-Creative process, 2.2.1-Performance & process

Integrated Subject - Science 1- Systems

Subject EALR - Systems thinking makes it possible to analyze and understand complex phenomena. Systems concepts begin with the idea of the part-to-whole relationship in the earliest grades, adding the ideas of systems analysis in middle school and emergent properties, unanticipated consequences, and feedback loops in high school.

Searchable Keywords - Weather, seasons, spring, summer, fall, winter, temperature, clouds, cirrus, stratus, cumulus, precipitation, rain, snow, win

Visual Art Objective - Students will create and perform a play using improvisational dance movements to depict weather from the four seasons to music.

Integrated Subject Objective - This could be used as a culminating project after the Weather unit. Students will use their knowledge of typical weather patterns to create a play.

Vocabulary - Weather, seasons, spring, summer, fall, winter, clouds, cirrus, stratus, cumulus, precipitation, rain, snow, hail, wind, sun beams, lightning, thunder, temperature

Materials - Music - “Four Seasons” by Vivaldi, excerpts from all four pieces (especially the ending storm sequence in “Summer”) Visual art-”The Star” by Degas (Art Fusion timeline) Materials to create props and costumes: construction, butcher, and crepe paper, scissors, gray or white blankets

Historical Connection
“Four Seasons” by Vilvaldi, “The Star” by Degas
Teaching Procedure

1. Tell the students their learning objective: I can create and perform in a play using improv dance movements to depict weather from the four seasons.

2. While viewing the Degas painting, “The Star”, from the Art Fusion timeline, play excerpts from Vivaldi’s “Four Seasons”, prompting them to listen for changes in the music tempo and mood when the season changes.

3. Brainstorm with students to list typical weather patterns from the four seasons such as:
   - **Fall**: sunny but with colder temperatures, some wind, some precipitation (rain) & cloudy days (stratus)
   - **Winter**: sunny but with cold to freezing temperatures, some wind, some precipitation (rain & snow) & cloudy days
   - **Spring**: sunny but with cool to warm temperatures, some wind, some precipitation (rain & hail) & cloudy to partly cloudy
   - **Summer**: sunny and warm to hot temperatures, some wind, thunder/lightening storms, partly cloudy (cirrus)

4. Divide the class into four groups—one for each season. Have each group pick a season randomly out of a hat to determine their first season to ‘act out’.

5. Have the students think of a symbol that would represent their respective season. Have each student draw shapes on construction paper to create their own version of the symbol. ie: fall leaves, raindrops, snowflakes, flowers, cirrus, cumulus & stratus clouds, sun beams (yellow streamers) and lightning bolts.

6. Have students think of a movement for their props.

7. Play music selection and teacher narrate the changing of the seasons while each group creates impromptu movements with their props.

8. To extend lesson, groups or individuals could select a season and have the class guess what season they think they are acting out based on their movements alone.

**Assessment Criteria**
Students actively participate in movement and creation of the props. Students indicate by their movements when a season changes.
Lesson 1

Lesson 2
Elements of Art

The elements of art are the components that artists use to create visual art.

**Line** - The path of a point through space. There are many different types of lines, i.e. thick, thin, short, vertical, horizontal, boken, etc. Contour lines show the edges of an object, either exterior or interior.

**Shape** - Two-dimensional area enclosed by a line: geometric (square, rectangle, star, etc.) and organic (closed curved lines).

**Form** - Three-dimensional object that has height, width and depth, i.e. sphere, cube, prism, cylinder, cone, etc.

**Color** - The visible range of reflected light made up of hue (color name), intensity (brightness or dullness) and value (lightness or darkness).

Tint = color with white, Shade = color with black

**Value** - The lightness or darkness of a line, shape or form.

**Texture** - The perceived surface quality of an artwork, i.e. hatching, cross-hatching, scribbling, stippling, etc.

**Space** - The area around, below, above, and within and artwork; the illusion of depth or space on a flat surface, i.e. overlapping, 1-point perspective, positive and negative space, etc.

Visit the ArtFusion website at www.artfusion.us for more information

Principles of Design

The principles of design describe how the elements of art listed above can be arranged and organized.

**Repetition and Pattern** - The repeated use of an art element to create a pattern.

**Contrast** - Emphasizing differences in art elements, i.e. light/dark, rough/smooth, etc.

**Emphasis and Dominance** - Emphasizing a focal point or highlighting an art element in a artwork.

**Variety** - Combining art elements differently to create interest, detail and focus.

**Balance** - The distribution of art elements to provide visual weight in an artwork (symmetrical, asymmetrical and radial)

**Movement/Rhythm** - Creating a sense of direction to move the viewers eye across an artwork.

**Proportion** - The relationship of art elements to the whole artwork and to each other.

**Harmony/Unity** - Emphasizing specific aspects of art elements to unify elements in an artwork.

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