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Lesson Overview

Lesson Plans
Designed to extend and enhance the learning experience of our exhibits while linking to core curriculum subject matter.

Lesson Objectives
- To identify environmental artists, learn about their ideas, processes and specific use of media.
- To understand the history of painting materials and properties.
- To experiment with making natural pigments.

Core Curriculum Tie-Ins
Sixth through Eighth Grade: Science, Social Science, Visual Art.

Lesson Overview
On the ARTS tour, students will learn about the work of Sibylle Szaggars Redford: Summer Rainfall and how artists can bring awareness to environmental issues through art making. This lesson extends that learning and explores other ways of using natural elements to create artwork.

Length Of Lesson
One to Two Class Sessions.

Supplies
• White paper (heavy cardstock/paper for painting).
• Water/egg yolk/glue (paint binder).
• Pencils to take notes.
• Paint brushes.
Core Curriculum Tie-Ins

SCIENCE CORE CURRICULUM (7th grade)

Standard 5: Students will understand that structure is used to develop classification systems.

Objective 1: Classify based on observable properties.
   c. Defend the importance of observation in scientific classification.
   d. Demonstrate that there are many ways to classify things.

Objective 2: Use and develop a simple classification system.
   a. Using a provided classification scheme, classify things (e.g., shells, leaves, rocks, bones, fossils, weather, clouds, stars, plants, etc).
   b. Develop a classification system based on observed structural characteristics.

SOCIAL SCIENCE CORE CURRICULUM (7th grade)

Standard 1: Students will understand the interaction between Utah’s geography and its inhabitants.

Objective 2: Examine the interrelationship between Utah’s climate, location, landforms, and life.
   c. Assess how climate influences life in Utah.
   d. Explain how natural forces shape the living environment and landscape.
   e. Investigate how natural forces shape the local environments.

Objective 3: Assess how natural resources sustain and enhance people’s lives.
   a. Recognize the impact of water, minerals, wildlife, and forests on people.
   c. Analyze how natural resources improve the quality of life.
   d. Assess the importance of protecting and preserving natural resources.
VISUAL ART CORE CURRICULUM (6th grade)

Standard 4: (Contextualizing): The student will interpret and apply visual arts in relation to cultures, history, and all learning.

Objective 1: Compare the arts of different cultures to explore their similarities and diversities.
   a. Compare/contrast art forms, past or present, in terms of subject matter, culture, and history.
   b. Infer ways the availability of resources, technologies, and social conditions have affected artworks.
About Sibylle Szaggars Redford: Summer Rainfall

Summer Rainfall is the culmination of over five years of collaborating with the monsoon rains of Northern New Mexico, the gentle rains of the Napa Valley and the mountain rains of Utah. The works in this exhibition represent Sibylle’s continuing efforts to expand the vision of this collaboration through the use of various media; from Rain Paintings on watercolor paper, printing onto Silks and creating her Desert Silks, mixed media printing of intense radiant colors, to digital manipulation and photographic expressions laminated between plexi. In addition, you can experience her Rain Art Films on her website www.sibylleszaggars.com, and here at the Kimball Art Center.

With each interpretation of Original Rain Art, Sibylle has never lost her mission as an Environmental Multimedia Artist in order to raise awareness of our changing climate and weather patterns by presenting something beautiful through this collaboration of Artist and Rainfall.
Lesson Plan

1. Using the resources below (videos and images of environmental artists) introduce the idea of an artist who creates work about the environment, climate change, weather patterns, etc. Have students think about what environmental issues concern them and brainstorm on how they could affect a change through visual art.

2. Look specifically at Sibyle Szaggars Redford: Summer Rainfall Series. Talk about her process (pigment and rain water). How does she collaborate with nature? Discuss how her painting is a record of her collaboration with rain.

3. Talk about other artists that use natural materials from the earth to draw attention to our environmental impact (see resources—good example: John Sabraw http://hyperallergic.com/190453/painting-with-toxic-sludge/).

4. What are pigments? Discuss the history of painting materials, when dyes and paints had to be obtained from the natural world, directly from animals, minerals, and plants. Mud is the source of some of the earliest artist’s pigments. Historically, the best red was obtained from cochineal or kermes (both derived from the blood of an insect). In artists’ studios of the past (18th century and earlier) grinding and preparing pigments for paints was traditionally the duty of an apprentice. To bind the pigments and create a paint, various mediums have been used over the centuries. The most popular being egg yolk, or different oils (linseed, turpentine etc.). Milk was also commonly used.

5. What colors can you obtain from the natural resources around you? Consider taking a walk outside to collect material from which students can extract color. Take the time to point out and notice colors in nature. (http://playfullearning.net/2016/06/backyard-science-colors-nature/) If this is not an option, bring potential materials to the classroom, or supplement with materials that are not easily available (like berries for example).
Suggestions:
Brown – Natural soil or earth. The color obtained will vary depending on the local geology.
Purple/pink/red/lilac/blue – Berries, or beetroot. Try blackberries, blueberries, elderberries, blackcurrants, redburrants,
Red/Orange – Paprika, chilli powder.
Black – Soot or charcoal.
Grey - Woodash (or mix charcoal and chalk).
White – Chalk.
Yellow - Flowers plants.
Blue – A difficult color to get is a good bright blue. In the past, the best blue was obtained from the semi-precious stone Lapis Lazuli.

6. Collect materials in plastic bags or cups. Powders such as dirt and spices can mix with different binder easily in a cup using a spoon to mix and create a paint. Other materials like fruit can also be mashed with a spoon. Materials can be cut into smaller pieces with scissors or crushed in a plastic bag with a hammer (heavy object). Students can mix pigments with water, glue (egg yolk, even milk?).

7. Part of the fun of this activity is experimenting! Instruct students to use paper and a pencil to create a diagram of the experiments, using a brush to apply the paint and creating an inventory of the natural pigments. Discuss classification systems. Student can also take it a step further and create a painting that addresses environmental issues.
## Lesson Plan continued

<table>
<thead>
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<th>Name of natural material</th>
<th>egg yolk</th>
<th>glue</th>
<th>milk or?</th>
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<tbody>
<tr>
<td>grass</td>
<td>![ Grass ]</td>
<td>![ Glue ]</td>
<td></td>
</tr>
<tr>
<td>Blueberries</td>
<td>![ Blueberries ]</td>
<td>![ Glue ]</td>
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Resources

ENVIRONMENTAL ARTISTS:

http://www.huffingtonpost.com/2014/07/15/environmental-art_n_5585288.html


CLIMATE CHANGE:

https://climatechangelive.org/index.php?pid=180#8

http://www.explainthatstuff.com/globalwarmingforkids.html

http://ilovehistory.utah.gov/topics/water/irrigation.html

http://utahrivers.org/2015/09/08/climate-change/

PAINT RECIPES:

http://www.naturalearthpaint.com/pages/resources-natural-paint-recipes
Vocabulary

**CLASSICAL ELEMENTS:** Classical elements typically refer to the pre-scientific concepts in Ancient Greece, of earth, water, air, fire, and aether, which were proposed to explain the nature and complexity of all matter in terms of simpler substances.

**CLIMATE CHANGE:** Climate change is a change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels. It refers to general changes in climate patterns, including temperature, precipitation, winds, and other factors. Global warming (as well as global cooling) - Refers specifically to any change in the global average surface temperature.

**NATURAL RESOURCES:** A natural resource is something that is found in nature and can be used by people. Earth’s natural resources include light, air, water, plants, animals, soil, stone, minerals, and fossil fuels.

**LAND ART:** Land Art is an art form that is created in nature, using natural materials such as soil, rock (bed rock, boulders, stones), organic media (logs, branches, leaves), and water.

**ENVIRONMENTAL ART:** Art that helps improve our relationship with the natural world and educates us about environmental problems.

**PIGMENT:** Pigment is a powder that is mixed with oil or water to make paint, ink, or other coloring material.

**BINDER:** A binder is a substance that holds loose substances together.