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2021-2022

Ideas With **IMPACT**



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**ECO Weaving:
Mandalas**



ECO Weaving: Mandalas

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#1371

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goals

to raise awareness of real-world issues

to examine the impact of plastic on the environment

to reuse, reduce, and recycle materials

to transform single use plastic bags into an art project

to experiment with a variety of weaving techniques

to create a sustainable woven textile

to explore ideas for a large-scale installation

to assess art making skills, techniques, and processes

objectives

participants will explore ecological issues

participants will look for ways to reduce the negative impact of plastic

participants will make a circular loom from recycled cardboard

participants will develop Plarn, yarn from single-use plastic bags

participants will learn weaving techniques: Tabby, Egyptian, Soumac and Interlocking

participants will create ECO Weaving Mandalas using single-use plastic

participants will explore fence weaving ideas at their school site or work location

participants will assess their woven textile project experiences

florida state standards

Science

Nature of Science

1 SC.5.N.1.1

The Practice of Science

Define a problem, use appropriate reference materials to support scientific understanding.

Technology

Textile production and the use of portable looms.

Engineering

Design new and innovative textiles made of fibers and polymers.

Visual Art

Skills, Techniques, and Processes

VA.5.S.3.5, VA.68.S.3.5, VA.912.S.3.5

Create multiple works that demonstrate thorough exploration of subject matter and themes.

Organizational Structure

VA.5.O.2.4, VA.68.O.2.4, VA.912.O.2.4

Concentrate on a particular style, theme to develop artwork for a portfolio, display, or exhibition.

Historical and Global Connections

VA.5.H.1.1, VA.68.H.1.1, VA.912.H.1.1

Analyze the impact of social, ecological, economic, religious, and/or political issues on the function or meaning of the artwork.

Innovation, Technology, and the Future

VA.5.F.1.1, VA.68.F.1.1, VA.912.F.1.1

Use divergent thinking, abstract reasoning, and various processes to demonstrate imaginative or innovative solutions for art problems.

Mathematics

Measurement

MA.5M.1.1

Convert measurement units to solve multi-step problems.

course outline

I. ECO Weaving Mandala

A. Environment

B. Art Project

II. Circular Loom

A. Cardboard

B. Notches Odd Numbered

III. Plarn

A. Single-Use Plastic

B. Strips/Yarn

IV. Weaving Techniques

A. Tabby

B. Egyptian

C. Soumac

D. Interlocking

V. Fence Weaving

A. Installation

B. Collaboration

VI. Self-Assessment

A. Reflective Writing

Overview

This workshop serves as an introduction to ECO Weaving: Mandala, a sustainable woven textile project. Participants will weave an eco-friendly Mandala, a circle design and make their own circular loom from recycled cardboard. Together we will create Plarn, yarn from single use plastic bags and experiment with a variety of weaving techniques including Tabby, Soumac, Egyptian, and Interlocking to achieve form, texture, and pattern. Participants will examine the impact of plastic on the environment and raise awareness of this important social issue. We will investigate ways to extend the ECO Weaving Mandala textile project to a large-scale installation to execute a fence weaving mural at their school site or work location.

Title: ECO Weaving: Mandalas	
Contributor: Susan Feliciano	Email: susanfeliciano@dadeschools.net
School: Marjory Stoneman Douglas Elementary	County: Miami-Dade
Level of Lesson: Elementary/Middle/High/Museum	Lesson Length: 90 minutes
Essential Questions	
<p>1 How do objects, places, and design shape lives and communities?</p> <p>2 How do artists and designers determine goals for designing or redesigning objects, places, or systems?</p> <p>3 How do artists and designers create works of art or design that effectively communicate?</p>	
Objective	
Participants will engage in a sustainable woven textile project ECO Weaving Mandala, explore circular looms, employ plarn, experiment with weaving techniques, examine the impact of plastic on the environment, extend textile weaving project and execute fence weaving mural at a site or location.	
Procedures:	
<ol style="list-style-type: none"> 1. Trace and cut circular template onto cardboard with a pencil and scissors. 2. Measure and cut an odd number of notches into the circular loom 1 inch apart. 3. Fold plastic bags lengthwise and cut handles and ends. 4. Cut plastic bags into 1-inch strips. 5. Open each strip and cut loop now you have plarn. 6. Tie one end of the plarn with a knot and thread it through a notch on the loom. 7. Wrap the plarn over the front and slip into a notch then bring it over to the next notch. 8. Wrap warp crossed over the front and side stitch it on the back side. 9. Continue until the front looks like a starburst. 10. Gather the center threads and tie with a small piece of plarn. 11. Tie a new piece of plarn to one thread and begin weaving using the different techniques. 12. Continue weaving in a circular fashion starting from the inside 13. To add more plarn tie two ends together. 14. When you reach the outer edge tie a knot. 15. You can slip the woven textile off the loom by pulling at the side stitched threads. 	
Self-Assessment/Rubric:	
Self-Assessment/ Visual Arts Rubric	
Supplies/Resources:	
Plastic Bags / Cardboard / Rulers / Scissors / Pencil / Circular Template	
ESOL Strategies:	
Visual Clues / Model Task / Hands-on Activities / Cooperative Learning / Use Graphs	



inquiry questions

1. what do artists make?
2. why are recycling practices essential?
3. why is design thinking important?
4. how would you define sustainability?
5. why are eco-friendly products critical?
6. If you could create a new material, what material would it be?

visual art rubrics

Category	Essential Question	Criteria	0 No Work	1 Needs Work	2 Average	3 Meets	4 Exceeds	Score
Composition	How is it organized?	<input type="checkbox"/> Color/Texture <input type="checkbox"/> Pattern						
Completion	How is it finished?	<input type="checkbox"/> Mastery <input type="checkbox"/> Participation						
Content	How is it communicated?	<input type="checkbox"/> Soumac <input type="checkbox"/> Egyptian <input type="checkbox"/> Tabby <input type="checkbox"/> Interlocking						
Creativity	How is it different or new?	<input type="checkbox"/> Originality <input type="checkbox"/> Impact						
Craftsmanship	How is it made?	<input type="checkbox"/> Quality <input type="checkbox"/> Presentation						
GRAND TOTAL								

self-assessment

1. describe **three** things you liked about this learning activity.
2. explain what part of this activity you would like to learn to do better.
3. discuss what part of this learning activity was the most difficult.
4. identify **three** new ideas, skills, or information you learned.
5. if you could do this activity over again state what you would do differently. Why?

glossary of terms

- Assessment • to evaluate
- b
- circular • the shape of a circle
- Cardboard • a thick paper
- Craftsmanship • skilled work made by hand
- d
- Egyptian Knot • wrapping threads under and over
- Eco • not harming the environment
- f
- g
- Horizontal • level to the ground
- Interlocking • threads that overlap one another
- Installation art • large scale construction in a specific location
- j
- Knot • tie a piece of thread
- Loom • a device to create fabric
- Mandala • circle with geometric designs
- Materials • cloth or fabric
- n
- o
- Plarn • plastic yarn
- Plastic • synthetic material made up of polymers
- q
- Recycle • transform into a reusable material
- Reuse • use more than once
- Reduce • less in amount
- Soumak • wrapping threads over and under
- single use plastic • used once then thrown away
- Sustainability • to maintain an ecological balance
- Tabby • plain weave
- Techniques • the way to perform a task
- u
- Vertical • top to bottom
- Weaving • interlacing threads to form fabric
- Warp • the horizontal or weaving threads
- Weft • the vertical threads
- x
- Yarn • spun thread
- z

educational resources

books

books and books
barnes & noble

booksandbooks.com
barnesandnoble.com

visuals

davis publications
scholastic arts

davis.org
scholastic arts.org

supplies

jerry's art-a-rama
blick art materials

jerrysartarama.com
blick.com

materials

Ocean Bank Warehouse

educationfund.org

museums

Museum of Contemporary Art
Frost Art Museum
Perez Art Museum Miami
met
museum of modern art
Guggenheim museum

mocanomi.org
frost.fiu.edu
pamm.org
met.org
moma.org
guggenheim.org

fieldtrips

Miami Dade Public Library System
Fairchild Tropical Botanic Garden
oolite arts

mdpls.org
fairchildgarden.org
oolite.org

organizations

National Art Education Association
Florida Art Education Association
Dade Art Educators Association

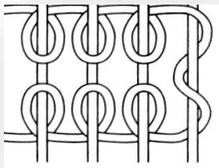
naea.org
faea.org
daea.org

videos

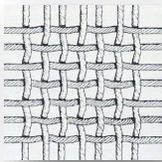
art21
ted ed visual art

art21.org
teded.org

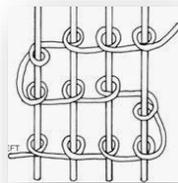
weaving techniques



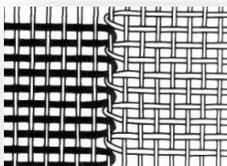
egyptian knot weave



tabby plain weave



soumac weave



interlocking weave

weaving procedures

egyptian knot weave

Pull weft thread UNDER warp thread and bring around OVER and UNDER the same weft thread. UNDER/OVER/UNDER/PULL each warp thread.

tabby/plan weave

Pull weft thread UNDER the first warp thread then OVER the second warp thread, and UNDER the third warp thread. UNDER first/OVER second/UNDER third/ and so on until you complete a complete circle.

soumac weave

Pull weft thread OVER warp thread and bring it UNDER and OVER the same weft thread. OVER/UNDER/OVER/PULL each warp thread.

interlocking

Pull weft thread like tabby. To add another color thread, you can interlace or interlock it alongside another tabby weave. Begin above one thread and weave across. The next row begins under the other colors row. Continue until both sides reach the end.



materials

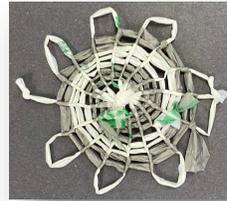
circular loom

- cardboard
- pencil
- scissors
- circular template
- ruler

plarn

- plastic bags
- scissors

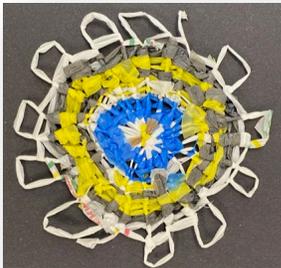
student work



2nd Grade



3rd Grade



4th Grade



5th Grade

Fence Weaving



Students made over 200 mandalas from plastic bags. They wove each mandala onto the fence using plarn and weaving techniques. This area leads to the outside garden and is located near the parking lot. When parents or guests arrive at the school, they see the mural. Not only is this work beautifying the school it is telling a story. This large-scale installation is a reminder of the transformative power of creativity turning trash into works of art.

