



FOR EXCELLENCE IN MIAMI-DADE PUBLIC SCHOOLS

2023
2024

Ideas with

IMPACT

STEAM

**ECO Sprouts:
Recycled Plantable
Seeded Paper**

IDEA PACKET SPONSORED BY:



ASSURANT®



ECO Sprouts: Recyclable Seeded Paper

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#1371

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DEDICATION

This curriculum packet is dedicated to ALL artists/scientists who are curious about the natural world, citizen scientists who are the caretakers of the planet, and educators who inspire their students to learn about their place in it.

GOALS

- To raise awareness of environmental issues
- To think like an artist/scientist
- To experiment as citizen scientist
- To examine the impact of planting on the environment
- To use materials made from nature
- To assess visual art skills and processes
- To explore ideas for biodiversity

OBJECTIVES

- Participants will explore paper making processes
- Participants will experiment with natural materials
- Participants will create recyclable seeded paper
- Participants will produce a min planet earth
- Participants will identify plants and pollinators
- Participants will plant wildflowers
- Participants will assess the project

FLORIDA STATE STANDARDS

Science Standards:

Nature of Science

SC. 5. N.11/ SC.68. N.11/ SC.912. N.11

The Practice of Science

Define problems, use appropriate reference materials to support scientific understanding.

Technology

Paper making production and sustainable practices.

Engineering

Phases of production include recycling, reusing, and reducing.

Visual Arts Standards:

Skills, Techniques, and Processes

VA.5. S.1 / VA.68. S.1 / VA.912. S.1

The arts are inherently experiential and actively engage learners in the processes of creating, interpreting, and responding to art.

Organizational Structure

VA.5. O.1 / VA.68. O.1 / VA.912. O.1

Understanding the organizational structure of an art form provides a foundation for appreciation of artistic works and respect for the creative process.

Historical and Global Connections

VA.5. H.3 / VA.68. H.3 / VA.912. H.3

Connections among the arts and other disciplines strengthen learning and the ability to transfer knowledge and skills to and from other fields.

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.

Math

Cluster 2: Represent and interpret data.

MAFS.5.MD.2.2 A data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions to solve problems involving information given different measurements of liquid. Cognitive Complexity: Level 2: Basic Application of Skills & Concepts.

COURSE OUTLINE

I. ECO Sprouts: Recyclable Seeded Paper

- A. Recycle Colored Paper
- B. Paper Making
- C. Explore Sustainable Practices like a Citizen Scientist

II. Planet Earth

- A. Reuse Plastic Lids
- B. Make a Mini Planet Earth
- C. Paper Molds

III. Planting and Documenting

- A. Reduce Carbon Footprint
- B. Plant Wildflower Seeded Paper
- C. Document Observations in Sketchbook/Journal Like an Artist/Scientist

IV. Wildflowers and Pollinators Chart

- A. Promote Biodiversity
- B. Provide Food and Habitat for Pollinators
- C. Identify Wildflowers and Pollinators of Florida

OVERVIEW

This Earth Day art project promotes biodiversity! In this eco-friendly workshop students will develop sustainable practices using the 3 R's, reuse, recycle, and reduce, as they create ECO Sprouts: Recycled Plantable Seeded Paper. Students get to make paper from recycled materials and use it to design a mini planet earth from molds reusing plastic lids. Additionally, students will add wildflower seeds to their paper pulp. Within a few days tiny sprouts will emerge. When the paper is planted a flower grows and leaves no waste behind.

ECO Sprouts: Recycled Plantable Seeded Paper works on three levels. First it lowers paper waste by recycling paper. Second, students will prevent carbon dioxide gasses from entering the atmosphere by planting seeds that sprout into flowers. Third, the wildflowers increase biodiversity by providing food and habitat for pollinators.

The aim of this workshop is to have students of all ages and skill levels invest in their planet through sustainable practices. The ultimate goal is to teach students that they are caretakers of the planet and planting seeds makes a positive impact on the environment and in a cyclical manner their personal achievement. Best of all ECO Sprouts: Recycled Plantable Seed Paper can be molded or adapted to any SHAPE commemorating any DAY.

INQUIRY QUESTIONS

1. What do artists/scientists make?
2. Why is observation essential?
3. How does science and art connect?
4. Why is it important to think like an artist?
5. Why are ECO friendly products critical to the environment?
6. What are ways this project explores citizen science ideas?

VISUAL ART RUBRIC

STUDENT NAME			LESSON TITLE				DATE
CATEGORY	QUESTION	CRITERIA	4 Excellent	3 Good	2 Fair	1 Limited	TOTAL
Composition	How is it organized?	Elements of Art Principles of Design					
Completion	How is it finished?	Realized Accomplished					
Content	How is it communicated?	Subject Media					
Creativity	How is it innovative or new?	Unique Interesting					
Craftsmanship	How is it made?	Presentation Quality					
GRAND TOTAL							
FEEDBACK							

EDUCATIONAL RESOURCES

apps

iNaturalists

bookstores

books and books

booksandbooks.com

barnes and noble

barnesandnoble.com

field trips

fairchild tropical botanic garden

fairchildgarden.org

pinecrest gardens

pinecrestgardens.org

miami beach botanic gardens

mbgarden.org

materials

ocean bank warehouse

educationfund.org

museums

frost art science museum

frostartsciencemuseum.org

organizations

national art education association

naea.org

supplies

jerry's art-a-rama

jerrysartarama.com

blick art materials

blick.com

videos

met kids

metkids.org

tate kids

tatekids.org

ted ed

teded.org

visuals

davis publications

davis.org

scholastic arts

scholasticarts.org

SELF ASSESSMENT

Name	Date
Questions	Answers
Describe three things you enjoyed about this project?	
Explain what part of this project you would like to learn to do better?	
Discuss what part of this project was the most difficult?	
Identify three new ideas, skills, or information you learned?	
State what you would do differently if you could do this project again? Why?	

GLOSSARY OF TERMS

- Assessment • to evaluate an outcome.
- Botany • the scientific study of plants.
- Citizen Scientist • conduct experiments, collect data, results, and solve problems.
- Color • the hue, value, and intensity.
- D
- Earth • the planet, the world.
- Eco • not harming the environment.
- F
- G
- H
- Inquiry • to ask information.
- J
- K
- Lid • top of a container.
- Mold • a hollow container that gives a form.
- Natural Materials • plants, animals, stones, minerals, or metals.
- O
- Paper • material made from the pulp of wood.
- Plant Based • fruits, vegetables, grains, beans, nuts, seeds, herbs, or spices.
- Pollinator • carries pollen from one plant to another.
- Pulp • wet, soft, mass of a material.
- Question • to ask.
- Recyclable • transform into a reusable material.
- Reuse • use more than once.
- Reduce • less in amount.
- Rubric • set of guidelines.
- Seeded • having seeds.
- Sprouts • a shoot of a plant.
- Sustainability • to maintain a balance.
- Techniques • the way to perform a task.
- Tool • an instrument or device used by the hand.
- U
- V
- Wet • saturated with water.
- X
- Y
- Z

MATERIALS LIST

Natural Materials	Supplies	Tools	Equipment
Blue Paper Green Paper Brown Paper White Paper Water Flower Seeds	Plastic Bags Sharpie Markers Manilla Paper Newsprint Paper Towels Plastic Lids Plastic Containers Sponges	Scissors Measuring Cups Stainless Steel Pots Bowls Wire-Mesh Strainers	Blenders Food Processors
Ask parents to donate the flower seeds.	Ask parents to donate the plastic containers, lids, and sponges.	Get these items from the Dollar Store or Thrift Store.	Get them from a Thrift Store.
Plastic is best in the classroom.			

LESSON PLAN: ECO Sprouts: Recyclable Seeded Paper PAPER MAKING

Visual Art	Level	Grades 2-5, 6-8, 9-12
Lesson	Title	ECO Sprouts: Recyclable Seeded Paper
Theme	Topic	Environment
Media	Medium	Paper Making
Genre	Subject	Landscape
Objective	Outcomes	This eco-friendly Earth Day art project factors in the 3 R's- Recycle, Reuse, and Reduce where participants explore sustainable practices. The students will recycle colored paper blue, brown, green, and white and make pulp. Then infuse the pulp with wildflower seeds to make recyclable seeded paper.
Procedure	Steps	<ol style="list-style-type: none"> 1. COVER workspace with newsprint 2. SET UP blenders 3. DIVIDE students into 4 groups 4. EACH group receives a plastic container and colored paper 5. CUT colored papers into smaller pieces with scissors 6. MEASURE a cup of water in each container 7. PLACE colored paper in container 8. ALLOW the papers to soak for 2 or 3 minutes 9. HAVE each group pour paper mixture into a blender 10. ADD more water as necessary 11. SUPERVISE blender use 12. BLEND until paper turns into pulp 13. PLACE a large bowl/pot under wire mesh strainer 14. POUR pulp onto strainer 15. USE strainer to separate excess water from pulp 16. PUT pulp into plastic containers 17. ADD a handful of seeds to pulp and mix
Essential Question	Big Idea	How does engaging in creating art enrich people's lives?
ESOL Strategies	English Learners	Visual Clues, Model Tasks, Hands-on Art Activities, Cooperative Learning
Assessment/ Rubric	Evaluation	Self Assessment, Observation, Visual Art Rubric
Sketchbook/ Journal	Practice Skills	Note Taking, Recording Observations, Drawing Pictures

LESSON PLAN: Planet Earth PAPER MOLDS

Visual Art	Level	Grades 2-5, 6-8, 9-12
Lesson	Title	Planet Earth Project
Theme	Topic	Environment
Media	Medium	Paper Molds
Genre	Subject	Landscape
Objective	Outcomes	This eco-friendly Earth Day art project factors in the 3 R's- Recycle, Reuse, and Reduce where participants explore sustainable practices. The student will reuse plastic lids as molds to make a mini planet earth. They will design the earth's surface using blue, green, white, and brown pulp made from recycled paper. They will press it into plastic lids that serve as circular molds. Within a few days tiny sprouts will emerge.
Procedure	Steps	<ol style="list-style-type: none"> 1. COVER workspace with newsprint 2. DIVIDE students into 4 groups 3. EACH group receives plastic containers colored pulp 4. SHOW students images of the planet earth from space 5. PRESS small amounts of pulp into the lid 6. DEMONSTRATE how to recreate the earth's surface 7. START with blue for the water 8. ALLOW students to soak up any excess water with a sponge 9. MOVE into green for the land 10. PINCH the blue and green pulp to make it bind together 11. SUPERVISE how much pulp each group uses 12. FOLLOW with brown for the desert 13. PLACE white in small amounts on top to create clouds 14. SOAK up water in and around the lid with sponges 15. USE a separate container to squeeze out excess water 16. DISTRIBUTE paper towels to dry hands and table surfaces 17. KEEP pulp in lids to dry over the next 3 days 18. USE rubric to assess students works
Essential Question	Big Idea	How do objects, places, and design shape lives and communities?
ESOL Strategies	English Learners	Visual Clues, Model Tasks, Hands-on Art Activities, Cooperative Learning
Assessment /Rubric	Evaluation	Self-Assessment, Observation, Visual Art Rubric
Sketchbook/ Journal	Practice Skills	Note Taking, Recording Observations, Drawing Pictures

LESSON PLAN: PLANTING and DOCUMENTING

Visual Art	Level	Grades 2-5, 6-8, 9-12
Lesson	Title	Planting and Documenting
Theme	Topic	Environment
Media	Medium	Drawing and Journaling
Genre	Subject	Landscape
Objective	Outcomes	This eco-friendly Earth Day art project factors in the 3 R's- Recycle, Reuse, and Reduce where participants explore sustainable practices. The student will plant their mini planet earth seeded paper in their neighborhood to reduce their carbon footprint and help combat the causes of environmental climate change. They will document their observations in a sketchbook/journal referring to the wildflower and pollinator chart for identification purposes.
Procedure	Steps	<ol style="list-style-type: none"> 1. DIVIDE students into 4 groups 2. EACH group receives their mini planet earth 3. DISTRIBUTE plastic bags, flyer, and planting instructions 4. LABEL plastic bags with students name 5. HAVE students carefully place mini earth in plastic bag 6. ADD flyer and planting instructions 7. SUPERVISE packing making sure everything lies flat 8. EXPLAIN planting wildflowers reduces carbon footprint 9. GO over planting instructions 10. HANDOUT the wildflower and pollinator chart 11. REVIEW names of wildflowers and pollinators on the list 12. PASS out Sketchbooks/Journals 13. DIRECT students to record observations in their journals 14. SHOW students how to note take and draw pictures 15. EXPLAIN that artists and scientists document observations 16. ASSESS students journal entries
Essential Question	Big Idea	How does art preserve aspects of life?
ESOL Strategies	English Learners	Visual Clues, Model Tasks, Hands-on Art Activities, Cooperative Learning
Assessment/ Rubric	Evaluation	Self-Assessment, Observation, Visual Art Rubric
Sketchbook/ Journal	Practice Skills	Note Taking, Recording Observations, Drawing Pictures

WILDFLOWERS AND POLLINATORS CHART

DIRECTIONS

In your Sketchbook/Journal practice drawing pictures, note taking, and recording observations of the wildflowers and pollinators that grow in your neighborhood, backyard, or garden. Develop your artist/scientist skills by using this chart to help identify your findings and to label your drawings.

WILDFLOWERS	POLLINATORS
Aster	Ant
Black Eyed Susan	Bat
Blazing Star	Beetle
Coreopsis	Bumble Bee
Cornflowers	Cloudless Sulphur Butterfly
Cosmos	Firefly
Dune Sunflower	Green Metallic Bee
Florida Green Eyes	Gulf Fritillary Butterfly
Goldenaster	Hawk Moth
Marigold	Honey Bee
Milkweed	Hummingbird
Purple Coneflower	Lady Bug
Purple Passion Flower	Monarch Butterfly
St. John's Wort	Queen Butterfly
Verbena	White Peacock Butterfly
Wild Petunia	Zebra Longwing Butterfly

GALLERY OF IMAGES



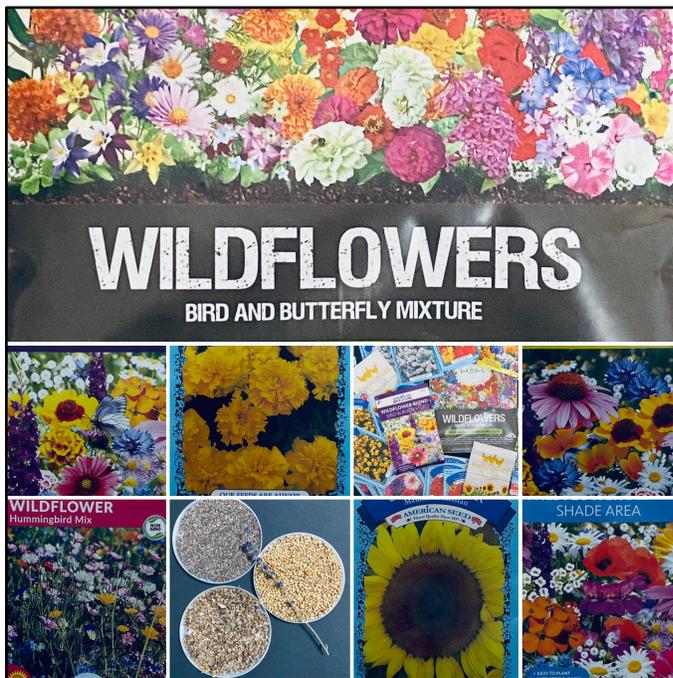
Students recycled blue, green, brown, and white paper into pulp.



Students created ECO Sprouts packets to commemorate Earth Day.



Seeds began to sprout from the mini planet earth seeded paper.



Parents donate packets of wildflower seeds for the ECO Sprouts project.

BIBLIOGRAPHY

American Forest and Paper Association <https://www.afandpa.org/news/2021/history-paper>

Earth Day.org, <https://www.earthday.org/>

Fairchild Tropical Botanic Garden, <https://fairchildgarden.org/>

Florida Museum, <https://www.floridamuseum.ufl.edu/wildflowers/wildflower-search/>

Florida Wildflower Foundation, <https://www.flawildflowers.org/>

National Core Arts Standards, <https://www.nationalartsstandards.org/>

National Geographic, Plant a Pollinator Garden,
https://www.youtube.com/watch?v=M76sB_YPoU0

National Park Service, <https://www.nps.gov/subjects/pollinators/what-is-a-pollinator.htm>

Neddo, Nick, *The Organic Artist: Make Your Own Paint, Paper, Pigments, Prints and More from Nature*, Massachusetts, Quarry Books, 2015.

PBS Kids for Parents, <https://www.pbs.org/parents/crafts-and-experiments/make-your-own-paper>

PBS Nature, The Power of Pollinators, <https://www.youtube.com/watch?v=eDxZojp9yNg>

Science World, <https://www.scienceworld.ca/resource/pollinators/>

TED TALKS,

https://www.ted.com/talks/louie_schwartzberg_the_hidden_beauty_of_pollination

EARTH DAY

April 22, 2023



INVEST IN OUR PLANET

EARTH DAY
April 22, 2023



INVEST IN OUR PLANET

Dear Parents,

In celebration of Earth Day, students will be making recycled plantable seed paper. Students will recycle items made of natural materials and turn it into plantable seed paper. ***When the paper is planted a flower grows and leaves no waste behind.*** This art lesson teaches students to reduce their carbon footprint, help the environment, and invest in our planet.

We need your help to make this project a success. If you would be willing to donate towards our wish list, your contribution will be very much appreciated.

Wish List:

1. Packet of Flower Seeds
2. Sponges
3. Plastic Containers with Lids

Please note that your contribution is ***optional.***

Thank you in advance.

Susan Feliciano
Art Educator

EARTH DAY
April 22, 2023



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In celebration of Earth Day, students will be making recycled plantable seed paper. Students will recycle items made of natural materials and turn it into plantable seed paper. ***When the paper is planted a flower grows and leaves no waste behind.*** This art lesson teaches students to reduce their carbon footprint, help the environment, and invest in our planet.

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Thank you in advance.

Susan Feliciano
Art Educator

DÍA DE LA TIERRA
22 de abril de 2023



INVIERTE EN NUESTRO PLANETA

Estimados padres,

En celebración del Día de la Tierra, los estudiantes harán papel reciclado con semillas para sembrar. Los estudiantes reciclarán artículos hechos de materiales naturales y los convertirán en papel con semillas para sembrar. Cuando se planta el papel, crece una flor y no deja residuos. Esta lección de arte les enseña a los estudiantes a reducir su huella de carbono, ayudar el entorno e invertir en nuestro planeta.

Necesitamos tu ayuda para que este proyecto sea un éxito. Si está dispuesto a donar a nuestra lista de deseos, su contribución será muy apreciada.

Lista de deseos:

1. Paquete de semillas de flores
2. Esponjas
3. Contenedores de Plástico con Tapas

Tenga en cuenta que su contribución es **opcional**.

Gracias de antemano.

Susan Feliciano
Educador de Arte

DÍA DE LA TIERRA
22 de abril de 2023



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Gracias de antemano.

Susan Feliciano
Educador de Arte

FINAL NOTE

I hope you enjoyed this eco-friendly Earth Day art project. I would love to hear how you used the 3 R's- Recycle, Reuse, and Reduce and how you adapted this project to explore sustainable practices. What are the ways that you designed a project to reduce your students' carbon footprint? What response did you receive from your students about planting wildflower seeded paper in their neighborhood? Do you have photos of the mini planet earths, sprouts, flowers, or pollinators? Did you adapt this project to commemorate another day? Would you kindly share your ideas, thoughts or photos?

Please contact me at my school email address at: susanfeliciano@dadeschools.net