

Teaching Sustainability in the Arts
Art Methods for Elementary and Middle School
Educ 303
Professor Aurora Cortes

I. Selection of the course

I selected Educ 303: Teaching Art in Elementary and Middle School (Spring Semester 2015) to integrate the concept of sustainability. For Unit 7, my students had to identify how to approach the notion of interdisciplinary education in the arts. As they considered including art as a way of teaching reading, math or science, they also had to think of incorporating sustainability in their art projects.

II. Plan to incorporate sustainability into my course

As we were getting ready to begin Unit 7, I asked my students to reflect on the concept of sustainability. They discussed the concept and then they came to the conclusion that it was important to engage students' creative practices with the social and ecological issues facing the world today.

Then they posted their reflections in D2L as they discussed the significance of integrating the concept of sustainability in their art projects. I have included a few of my students' reflections, which express the importance of incorporating sustainability in the teaching of art in Elementary and Middle school.

I feel that sustainability is a very important concept to teach our students. Our world suffers when resources are used too quickly to supply. This is not only a great concept to teach in terms of resources, but I also believe it contributes to their development as a person. In teaching students not to waste resources when unnecessary, we are subconsciously training them to realize when they are wasting things or taking to much advantage of offered materials. If students are aware that they have a limit in terms of what materials they can use or how much of it they can use, that will hopefully shape their attitude toward all things they come across whether it be food, materials, money etc. This is a great mindset for humans to have in this world - learning how to save, preserve, and avoid waste in all situations. In an art classroom, students particularly need to learn how to be sustainable when using materials because sometimes the budget simply cannot go very far with materials being wasted.

Also, teaching students that they can create art using

natural materials rather than going out and purchasing materials is essential for that reason. Being that budgets can take advantage of our vast ideas of projects by limiting our materials, as teachers we should collect found objects that can be used for our lessons. In doing this, we are teaching students to become familiar with their surroundings and valuing the Earth, all materials (reused and new) are important to use to our benefit.

Student 1 (Spring 2015)

Teaching sustainability in the classroom today, no matter what the grade level is, is very important! Children get educated and they receive a sense of connection with the Earth we live on today and hopefully gain information from the lesson to keep Earth healthy for generations to come. For example my lesson plan on science and sustainability dealt with making your own garden, this promotes healthy eating and a clean way to use the environment to its fullest potential. Other examples of sustainability are reduce, re-use recycle, walking and riding your bike more rather than using a car polluting the environment, electricity use etc. These sustainability options can all be examples and art projects taught in the classroom. Students can create their own garden using math measurements and then color the organic vegetables and fruit they want to grow in it. They could also create unique and colorful recycling bins around school that promote recycling, catching students eyes to not forget to recycle and save the environment. Sustainability is very important thing to learn and art can be the key to promoting it with innovative ideas and motivated people.

Student 2 (Spring 2015)

Sustainability is a very important subject for all students to learn about in school. I also believe that sustainability is also more important than just celebrating it one day a year with Earth Day. Students need to know the importance of their own actions and understand that everything they do will affect everything in their future. Something as simple as recycling their papers instead of throwing them in the trash can make a difference, whether they think so or not. The resources we have in the world are not endless, so the sooner each student learns about the importance of sustainability, the sooner we can start making a difference.

Student 3 (Spring 2015)

I think it's important to integrate sustainability into art projects and lessons for three reasons. Firstly, by having concepts like "sustainability, recycle, going green" and

the like, children grow up comfortable with these terms and the lifestyle they represent. This allows these vital terms to be respected and not made fun of, or ignored. Secondly, if every school in the entire United States (or even the world) had even just a third of their art projects made in a sustainable way that would have an incredible impact on the environment. Classroom teachers (those that teach traditional subjects and those that teach only art) that commit to having a majority of their art projects be sustainable can greatly impact the environment; and save some big money! Lastly, teachers that teach and practice sustainable art projects challenge their students to think creatively about design. Teachers and peers still surprise me when they take used egg cartons or empty milk jugs and turn them into something so unique and special. I believe they also inspire students to look more closely at the material in their life to see what can be made with something that would have been thrown out before.

Student 4 (2015)

You're absolutely right. It's essential to teach younger children, what it means to act in a sustainable manner. Developing these nature friendly habits early in life, will help to ensure that the world's resources are protected for future generations. Giving students a variety of materials and then asking them to complete a particular task, such as an art project, is a unique idea. Such a task would require students to apply both creative and critical thinking in order to solve the problem at hand. I also like how you described that incorporating sustainability into other subjects, such as art, is a great example of lesson integration.

Student 5 (Spring 2015)

I like how you mentioned the need for students to be taught the importance of sustainability while their young; I wasn't really introduced to the topic until college!

Student 6

Then they incorporated sustainability in their lesson plans and they actually taught their lessons to the class.

I have included 3 lesson plans to demonstrate the integration of sustainability in the teaching of art in elementary and middle schools.

Lesson Plan 1

Title: A Tree is a Friend

Grade Level: 5

Teaching Approach: open-ended

Content Learning Objective: Students will learn that trees produce many things, including wood, paper, and oxygen.

Key Academic Language:

- Renewable
- Resource
- Reduce
- Reuse
- Recycle

Guiding Question:

- How important is a tree?

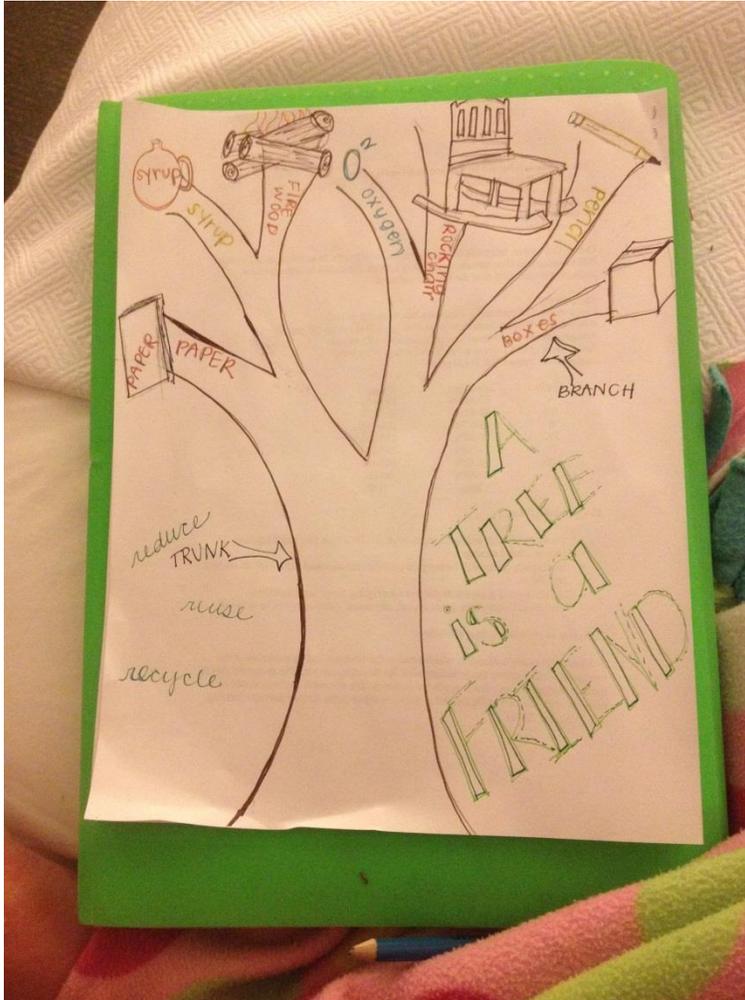
Activities/Procedures:

- Introduction: Read aloud “A Tree is Nice.”
- Procedure: In small groups, brainstorm ways trees help us
- Discuss as a class and generate a list of ideas
- Read aloud “A Tree is a Friend.”
- Have students get computers and research as many products as possible that are made up by a tree.
- Closing: Have students create their own tree, via paper or computer, with branches representing their findings.
- Review the parts of a tree.
- Review the 3 R’s and discuss energy needed to make products from wood. Remind the students it takes less energy to recycle than it does to make new products.
- On the students’ trees, have them also circle the items that they drew that can be recycled.

Materials:

- Art supplies

Assessment: Students will demonstrate their research abilities by representing their findings on a sheet of paper by drawing a tree and the benefits human receive from them.



Lesson Plan 2

Lesson Topic:

- Exploring sustainability by working with the different parts of a plant / flower.

Grade Level/Stage:

- 2nd Grade

Teaching Perspective:

- Subject Centered

Teaching Instruction:

- Close Ended

Goals:

Students will explore sustainability through plants.

Standards:

- Wisconsin Teaching Standard 1: The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

Content Learning Objectives:

- Students will be able to understand what sustainability is, and how planting plants help our environment.
- Students will be able to apply/use different art elements to create a flower to label and describe.

Key Academic Language Objectives:

- Sustainability: is the potential for long-term maintenance of well-being, which has ecological, economic, political, and cultural dimensions.
- Germination: the stage in the life cycle of a plant when the seeds first begin to grow.
- Minerals: special food in the soil. Plants need mineral to help them grow.
- Pollination: the movement of pollen from one flower to another.

Guiding Question:

- How does planting flowers/plants help the environment we live in?

Supply Distribution:

- After lesson is complete, students will be dismissed by tables to pick up the flower template, leaves/stem template from the back table. While students are working on coloring and cutting out flower petal, leaves/stem the teacher will come around and give each student the roots (pipe cleaners), cupcake liner, seed, and sunflower seeds. Extras will be put on the back table.

Introduction to Lesson:

- Introduction: Today, we are going to look at the different parts of a plant and how plants grow. I know that you guys have been working with plants, and have planted your own plants, and are observing how they grow. With a partner next to you, turn and talk about why do you think it is important we continue to reuse seeds from plants, and continue to plant flowers and plants?

- I am going to read you a non-fiction book called “From Seed to Sunflower” I want you to listen for the different stages that a plant goes through to reach the stage of becoming a flower.

Activities/Procedures:

- After introduction, let’s look at the different parts of the flower, when planting, what do we need to start with? After planting the seed, the seed starts to develop roots in the bottom of the soil. Roots are hidden underground but are very important to the plant. Roots hold the plant steady in the ground, suck up water and nutrients from the soil even store food for the future. The stem supports the plant and carries water, nutrients and plant chemicals up and down to all parts of the plant. Next is leaves, Leaves have little openings that let air and water come and go. Leaves catch energy from sunlight and use it to turn the air and water into food. Flowers attract pollinators (such as bees) and make seeds that will someday grow into new plants. The part of the flower that holds the seed is called the ovary. After pollination, the petals fall away and the ovary develops a fruit. The fruit protects the developing seed.
- We are going to do a little activity so you as scientists can identify the different parts of a sunflower. (Show them cultural exemplar) So the first step for you to complete is cutting out all of the parts of the sunflower (green and yellow construction paper), glue the white seed above the brown paper, next start gluing the roots (brown pipe cleaners) to the soil (brown construction paper), glue the stem and leaves in place, and then glue the petals (yellow construction paper) together, glue the white cupcake liner to the middle of the petals. Once you have everything glued into I will come around and give you some sunflower seeds for you to glue into the middle of your sunflower. (Put steps on board)
- Now that you have your sunflower complete, let’s identify the growing process of the flower, and label them. Label the seed, roots, leaves, and flower.
- Thinking about the plants we planted and the different parts, what parts of the flower can we reuse to help our environment? How does planting flower/plants help our environment? (People, animals, insects)

Wrap-Up: Review over the parts and definitions of words, with the label put definition on post-it note. Asking: What is the seed? What is the root? Where would we see germination take place? What are the leaves? What is the stem? What does the flower do? Have students share their flowers with their classmates at their tables. Have students clean up any scrap paper throwing any scraps into the recycle bin. Putting scissors, glue, and other art materials used away. Any extra material from the project should be placed on the back table.

Materials:

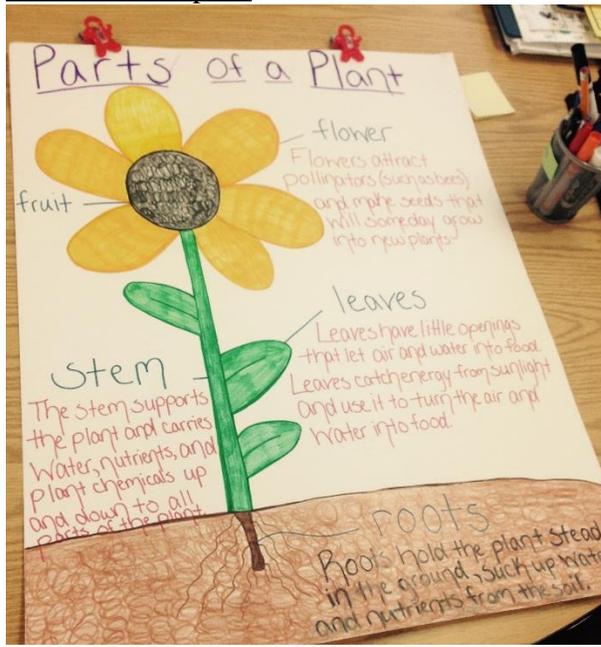
- Chart of Parts of Plant
- Book: From Seed to Sunflower

- Blue, Yellow, Green Construction Paper
- Little Cupcake Liners
- Sunflower Seeds
- Template of Sunflower Leaves, and Flower
- White Bean (For Seed)
- Brown Pipe Cleaners
- Glue
- Scissors
- Labels of Parts of Flower

Assessment:

- Students will be assessed on how they were able to label and describe the different parts of the plant and their understanding of how to reuse seeds to help the environment.

Cultural Exemplar:



Lesson Plan 3

Lesson Topic: Creating Tipis with Found Objects

(Social Studies and Art – Sustainability: Reusing and Recycling)

Age Level: 3rd Grade

Teaching Approach: Subject Centered – Students will be expected to create a specific structure using found objects.

Teacher Perspective: Close Ended Activity – Students will all be expected to make a Tipi out of a brown paper bag and sticks gathered from the outdoors. They are free to use leaves and flowers to decorate as well. All of the Tipis will look similar to each other.

Standards:

- D.4.3: Know that the environment influences the look and use of art, architecture, and design.
- K.4.3: Use what they are learning about life, nature, the physical world, and people to create art.

Content Learning Objectives:

- Students will learn the topic of sustainability and how they can contribute by creating art out of found objects.

Key Academic Language Objectives and Concepts:

- Sustainability through reuse – We can reuse found objects in order to remain productive rather than purchasing and creating materials for our art projects.
- Found Objects – Objects that we discover, not create ourselves
- Tipi – A tent-like dwelling that is created through the use of animal skin and wooden poles.

Supplies/Equipment: The students will need a brown paper bag each, a sheet of paper, four or five sticks that have been collected from outside and flowers and leaves if they prefer to create a basic tipi. In order to assemble the tipi, they will need rubber bands, glue, and tape.

The teacher will need a computer and a projector in order to show the students visuals of tipis that were created by nomadic tribes of the past.

Activities/Procedures:

Introduction: To introduce this project, I will ask the students, “If you lived out in the wild in the woods, alone, what types of materials would you use in order to create a home for yourself to protect you from the weather?” They will probably respond with answers like sticks, leaves, and plants. I will then introduce the topic of nomadic tribes. I will teach them about these tribes that were constantly moving in order to find food and resources for them to live off of. They created new homes quite often, and their homes, which they called tipis were made out of animal skin, wooden poles, and things of that nature.

Instruction: I will explain to them that we are going to use found objects (sticks & brown grocery bags) and some rubber bands or glue to create our tipis. I will explain to them that



this art project pays homage to sustainability because rather than creating and purchasing items to create our work of art, we are simply using things that we can find in nature to create it instead. I will tell the students to each use 4 or 5 wooden sticks and one grocery bag. They will also have a sheet of paper to create their work on. The students will be using tape in order to tape their wooden sticks in a circular formation to their sheet of paper. They will then bunch the sticks at the top and place a rubber band around them to secure them. I will tell them that plant fibers could be used as well if we would like to keep our projects completely made of things from nature. After they are finished with the stick formation, I will then tell them to cut their brown paper bag into a circle. At this point I will notify them that they can create a simple design in black marker on the outside if they would like. They will then cut a hole in the middle that is about two inches in diameter, and then they will cut the circle open on one side of the hole. Where they cut their circle open will be the opening of the tipi. They will then use tape in order to secure the two sheets together. I will explain to them that when nomads created their tipis, they used animal skin instead of brown paper bags. At the end of the class period, I will have all of the students write their name on their sheets of paper.

Closure: Afterwards, I will ask that the students clean up their tables and return any leftover materials to the front of the room.

Evaluation: Students will be evaluated on their material usage – if they used found objects, such as sticks & brown grocery bags.

III. Evaluation of the effectiveness of the plan and its implementation

Student teachers recognize the significance of teachings sustainability to elementary and middle school children. UWGB students expressed that we as a society are not taking care of our environment, as we should. They identified different ways we should adopt and model sustainability to future generations. They all had fun integrating this concept into their teaching of art and they all agreed this component will be a part of their teaching philosophy.

I believe this program was successful because the first step in sustainability is awareness. Once our future teachers are aware of this valuable asset, they will introduce it to our young children with the hopes that sustainability will become a life long way of life.