



The creation of this curriculum has been funded in part through a N.O.A.A. Outreach and Education Grant.

## Lesson 9: Resourcefulness in a Bottle

**Description:** A continuation of the study of using art as a language, focused on creating lines through processing materials.





**Upon completion of this lesson students will be able to:**

**Demonstrate how everyday objects and debris can become art supplies.**

## Concepts:

1. Artists use the language of the arts to communicate.
2. Resourcefulness is creating something of value out of something seemingly worthless.
3. Creativity is thinking in new ways about old ideas.

## Outcomes:

**Upon completion of this lesson students will be able to:**

1. Demonstrate an understanding of how lines can be used to communicate.
2. Demonstrate how everyday objects and debris can become art supplies.
3. Change the form of objects to fulfill a new function.

---

## Outline:

- I. Set up (20 min.)
  - II. Introduction (10 min.)
    - a. Learner Level Assessment
    - b. Behavior Guidelines
  - III. Processing Materials (30 min. See timing note in this section)
    - a. Looking at Materials in a New Way
    - b. Technique Stations
  - IV. Conclusion and Review (5 min.)
  - V. Follow-up Activities
    - a. Repurpose Your Own Debris
  - VI. Additional Resources
    - a. Sources
    - b. Vocabulary
-



**In order to prepare for this lesson, complete the giant masks templates.**

## I. Set up (20 min.)

Masks have been made from various materials in many cultures over thousands of years. They have been used for protection, disguise, entertainment, rituals, storytelling, to scare off enemies, in ceremonies and in theaters. They have also been used as symbols of certain attributes of people, animals or ancestors.

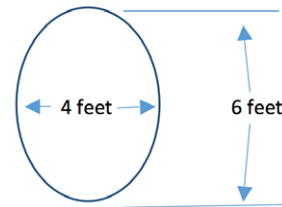
Through this curriculum, we are going to create a giant plastic mask and a giant eco mask. The plastic mask represents the habits of the throwaway lifestyle that have resulted in plastic pollution in nearly every ecosystem on earth. The eco mask represents the alternatives to the throwaway habits that can stop plastic pollution at its source. These masks will serve as reminders in the classroom to create earth friendly habits.

In this lesson, we will begin creating the masks by making the hair and eyes for both.

The lesson requires a screen and projector to show visuals to the class. Before this lesson, make sure to download the Art Lessons IAMDC PowerPoint. You will be using slides ten through fourteen.

In order to prepare for this lesson, complete the giant masks templates. These can be created by cutting out two large cardboard ovals roughly four feet by six feet. Size can be adjusted based on class size. The suggested size works well for a group of roughly 20 students. These cardboard templates can be cut from one large box or several small boxes taped together.

Cardboard blank should be in the shape of a face, roughly four by six feet:



Before this lesson, as a class decide on the colors and shapes of the masks' eyes and attach them. Place the eyes on the mask for size and placement and modify as necessary before securing. We'll attach both sets of eyes using the buttonhole technique described below.

### To create the eyes of the plastic mask:

Choose thin white plastic from the materials set collected for this curriculum and cut it into the shape you would like to use for the eyes of the plastic mask. Yogurt containers cut into an oval often work well for the whites of the eyes. Use thick water bottle bottoms for the iris and pupil. These bottoms should be thick enough that they have a distinct center that is darker than the surrounding plastic. If this cannot be found, you may want to use a black bottle cap as the pupil. Attach the eyes by using the buttonhole technique. Using a power drill, drill one set of holes through the bottle bottoms, the plastic used for the whites of the eyes, and the cardboard mask backing. Secure the eyes firmly by twisting the wire behind the mask. As an alternative option, acrylic latex caulk can be used to secure the eyes to the mask as long as time is allowed for the caulk to dry before the hair is attached later in this lesson.

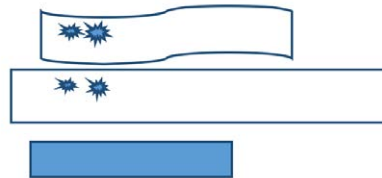
### To create the eyes of the eco mask:

Cut the recycled paper created in lesson seven into the shape you would like to use for the eyes of the earth mask. If your paper did not turn out, choose light cardboard packaging from the materials set to use as the whites of the eyes. Next, cut out paper or thin cardboard the color of your choice to layer on top of the whites of the eyes and serve as the iris and pupil of the eye. The three paper layers can be glued together and then attached to the earth mask using the buttonhole technique, or if each layer is thick enough all three can be layered and attached without glue using the buttonhole technique. Alternatively, the entire eye can also be glued to the mask if you prefer and can allow time to dry before attaching the hair.

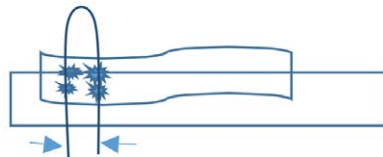


**In this lesson,  
 we will begin  
 processing  
 materials so  
 they can be  
 more easily  
 used to create  
 the lines, shapes,  
 and forms  
 that best suit  
 our work.**

**The buttonhole technique:** Punch two holes through the material you are attaching and through the cardboard you are attaching to. Use a nail to punch the holes and place a piece of Styrofoam packing material underneath to punch the nail into. These holes should be between 1/4" and 1/2" of an inch apart (about a finger width). If they are further, it will affect the appearance of the mask. If they are closer, the attachment won't hold. The holes should match up, so try to punch through both materials at once. Use a paperclip or small piece of 17 gauge wire bent into a U shape to push through both pairs of holes you create. Bend the paperclip or wire behind the cardboard to create a stable attachment. After it's complete, the attachment should look like a large staple. The ends of the staple can be twisted to create a more secure attachment if you choose.



Punch through the material you are attaching and the cardboard backing of your mask into a Styrofoam block using a sixteen penny nail.



Secure the material you are attaching to your cardboard by using wire or a paper clip to create a large staple.

**Additional Materials:**

- 1 t-shirt per student – from thrift stores or donations (washed)\*
- 2 - 3 empty water bottles per student
- Several plastic bags per student\*
- Strong sharp scissors – one per student
- 17 gauge wire cut into 12 " pieces, loop one end, one per student
- Several 16 penny nails
- Scrap large Styrofoam packing cubes
- Large paper clips (not scored) – to use as wire
- Wire cutters

\* The colors of the t-shirts and the plastic bags used will determine the color of the hair and eye-brows of the two giant masks. Decide as a class what colors you would like to use. Do not use more than three colors total. Consider what we learned about color in lesson two and try to choose colors that are complimentary.

**PLEASE NOTE:** DURING THIS LESSON, PARENT OR COMMUNITY VOLUNTEERS WILL BE NEEDED TO HELP AT EACH STATION. A MINIMUM OF 5-7 ARE REQUIRED TO HELP TEACH TECHNIQUES AND MONITOR SAFETY.





**Artists make choices to communicate their ideas.**

## II. Introduction (10 min.)

### Background:

Artists make choices to communicate their ideas. These choices include:

- **Design elements (the building blocks):** line, shape, form, color, texture, space, etc.
- **Design principles (how you arrange the building blocks):** repetition, pattern, balance, movement, focal point, contrast, unity, etc.
- **Materials:** paint, plastic, wire, clay, pencil, stone, canvas, etc.
- **Techniques:** painting, drawing, sculpting, photography, weaving, etc.
- **Expression:** ideas, issues, moods, etc.

Today, we are going to focus on learning more about how to intentionally use lines. This Washed Ashore graphic shows all the elements and principles of visual art for reference:

ELEMENTS AND PRINCIPLES OF ART	
<b>LINE</b> Line is the path of a point moving through space 	<b>PATTERN</b> Pattern refers to the repetition or reoccurrence of a design element, exact or varied, which establishes a visual beat. 
<b>SHAPE/FORM</b> Shape implies spatial form and is usually perceived as two-dimensional. Form has depth, length, and width and resides in space. It is perceived as three-dimensional. 	<b>RHYTHM/MOVEMENT</b> Rhythm or movement refers to the suggestion of motion through the use of various elements. 
<b>COLOR</b> Colors all come from the three primaries and black and white. They have three properties: hue, value, and intensity. 	<b>PROPORTION/SCALE</b> Proportion is the size relationship of parts to a whole and to one another. Scale refers to relating size to a constant, such as a human body. 
<b>VALUE</b> Value refers to relative lightness and darkness and is perceived in terms of varying levels of contrast. 	<b>BALANCE</b> Balance is the impression of equilibrium in a pictorial or sculptural composition. Balance is often referred to as symmetrical, asymmetrical, or radial. 
<b>TEXTURE</b> Texture refers to the tactile qualities of a surface (actual) or to the visual representation of such surface qualities (implied). 	<b>UNITY</b> Unity is achieved when the components of a work of art are perceived as harmonious, giving the work a sense of completion. 
<b>SPACE/PERSPECTIVE</b> Space refers to the area in which art is organized. Perspective is representing a volume of space or a three-dimensional object on a flat surface. 	<b>EMPHASIS</b> Emphasis refers to the created center of interest, the place in an artwork where your eye first lands. 



**Spiral cutting involves cutting a bottle from the bottom up in such a way that you turn the bottle into a long strip of material.**

### **a. Learner Level Assessment**

Hold up a water bottle and challenge the students to make it as tall as they are. Arrange students in groups of two to four to quickly brainstorm. Hand out a few water bottles to each group for students to experiment with. See if students can find any solutions just using the bottles to start. Next, ask students if there is a tool they could use to make this task more achievable. Hand out scissors to the students so that they can continue their experiments.

After the students have had some time to experiment, demonstrate spiral cutting a bottle to make it as tall as you.



Spiral cutting involves cutting a bottle from the bottom up in such a way that you turn the bottle into a long strip of material. The only bottle parts that aren't part of this long strip are the very top and very bottom. Begin a spiral cut by pushing the scissors into the side of the bottle just above the bottom. Careful of your hands! You may want to set the bottle down to create this initial plunge cut.

*Assessment (Outcome 3) Ask students to create as long a strip as possible from one bottle and brainstorm what they could do with this plastic strip.*

### **b. Behavior Guidelines**

Some lessons and activities in this curriculum require tools and/or physical activity, so there may be a need to discuss behavior expectations before activities. In this lesson, students will be using scissors. Sharp scissors will work best and can be dangerous if students are not familiar with how to use them. If they don't have much experience with scissors, or if you're teaching this lesson to younger students, you may want to go through scissor etiquette and technique when you reach that point in the lesson.

Scissor etiquette and technique points include:

- Don't ever cut toward your hand. Demonstrate how to move the object and cut from the other direction.
- If possible, keep the material you're cutting stretched tight.
- It will be easier to cut with scissors using the back of the blade, closest to the handle.

Students will also be using nails to poke holes in cardboard. Discuss keeping hands out of the way of the sharp end of the nail.



**A line is a path that we can visually follow. Lines create the boundaries of shapes and forms.**

### III. Processing Materials (30 min. see timing note below)

**Timing note:** the goal of this lesson is to help students learn two techniques that will be used to create the giant mask and also to learn how to attach their created materials to the cardboard mask blank. The time of thirty minutes for this section refers to the time it will likely take students to learn these skills. While it is possible that students may complete this work in one lesson, it is likely additional class time will be needed to complete this stage of the mask before the next art lesson, lesson 11. Plan to spend two to three class periods on the activities described in section “B” below.

#### a. Looking at Materials in a New Way

A line is a path that we can visually follow. Lines create the boundaries of shapes and forms. In the previous art lessons, we have been using whole, unmodified objects as art supplies. This has sometimes made it difficult to create new lines in our work because the objects we were using already had their own lines. In this lesson, we will begin processing materials so they can be more easily used to create the lines, shapes, and forms that best suit our work.

Use slides ten through fourteen of the Art Lessons IAMDC PowerPoint to show how water bottles are used for the Washed Ashore Project. Work through the questions on the slides. Ask students why Washed Ashore uses so many water bottles. Refer to the ICC chart from lesson eight. (Bottles are one of the most commonly found trash items on the beach).

*Assessment (Outcome 1) Project slide fourteen and ask students if it looks like any of the jellies could be in motion. As a class, discuss how the direction, thickness, and length of a line can be used to communicate a sense of movement. Are there other ideas that lines can communicate besides movement and direction?*

#### b. Technique Stations

Before beginning this activity, cardboard mask blanks should be cut out and ready to use. Eyes should be attached and mouths should be sketched in pencil as place holders.

Students will rotate between five stations to learn techniques of braiding, knotting, spiral cutting and wiring trash kabobs.

Before setting up stations, note that the colors of the t-shirts and the plastic bags used will determine the color of the hair and eye-brows of the two giant masks. Decide as a class what colors you would like to use. Choose a maximum of three colors for each type of hair.

**PLEASE NOTE:** PARENT OR COMMUNITY VOLUNTEERS WILL BE NEEDED TO HELP AT EACH STATION. A MINIMUM OF 5-7 ARE REQUIRED TO HELP TEACH TECHNIQUES AND MONITOR SAFETY.

**Allow 15-30 minutes to teach your volunteers the techniques before they work with students.**

**Space needed:** Set up five stations with a large table for each technique. These stations can stay up longer than the lesson and students can work at them when time allows. Teachers or volunteers should demonstrate techniques at each station before students begin.

##### Spiral cutting station

- Supplies:
- Water bottles
  - Scissors ——SAFETY FIRST – DO NOT CUT TOWARDS FINGERS!

Use the spiral cutting technique described in the “Grabber” section of this lesson to turn plastic bottles into long strips at least one inch wide that will be used by the trash kabob station.

##### Tearing fabric and cutting bags station

- Supplies:
- Plastic bags
  - T-shirts
  - Scissors

Tear and rip t-shirts into fabric strips no more than two inches wide. This is most easily done by snipping the end of the shirt with scissors to create a place to rip from. Cut plastic bags widthwise to create strips no more than two inches wide. These plastic and fabric strips will be used separately by the braiding station to create hair for our masks.



**The time of thirty minutes for this section refers to the time it will likely take students to learn these skills. While it is possible that students may complete this work in one lesson, it is likely additional class time will be needed.**

#### **Braiding and knotting station**

- Supplies:
- Fabric strips from T-shirt tearing station
  - Plastic strips created from plastic bags

Tie three fabric or three plastic strips together and braid them until you run out of material. Leave enough to tie at the finished end and complete the braid. It may be helpful to work with a partner to hold the knotted end of the strips while they are being braided. Do not mix the plastic with the fabric in the braid. These two materials must remain separate.

**Teaching braiding** – If students are not familiar with braiding, here is one way to explain it: There are three strands of material, one on each side and one in the middle. The ones on the outside are always arguing with the one in the middle, alternating sides say, “No I want to be in the middle!”, and jump over the middle strand into the middle. Then the other one says, “No I want to be in the middle!”, and jumps over. The argument continues until the strands are all braided and they say, “Wow, look what we made by working together!”

**Teaching Knotting** - Knotting the fabric rather than braiding can be an effective alternative for anyone challenged by braiding. Simply tie two strands together, overlap over and under and pull tight, then repeat. These knotted strips can add a nice texture to the hair.

#### **Ribbon kabob station**

- Supplies:
- Spiral cut plastics from spiral cut station
  - Sixteen penny nails to create holes in the plastic
  - Styrofoam to punch into
  - Pre-cut 12 inch sections of 17 gauge wire, looped and twisted on one end

Use a nail to punch holes into the spiral cut plastic strips in a repeated sequence, 2-3 inches apart. Use a pre-cut 12 inch section of 17 gauge wire with a loop on one end as a needle and thread the wire through the holes, (down up down up down up, etc.) Continue threading plastic strips onto the wire until the plastic is tightly bunched. Finish this kabob by creating a loop on the open end to hold the plastic on.

**Option:** create flat kabobs in addition to the ribbon kabobs. There are several types of trash kabobs. We just created a ribbon kabob. Try the others to see which you prefer to use on your mask. To create flat kabob, cut the spiral cut plastics into diamonds or squares and thread each piece separately like a bead.

#### **Attachment station**

- Supplies:
- Braids and kabobs from the other stations
  - Cardboard masks cut outs with eyes attached
  - Paperclips bent into U shapes or two to three inch sections of 17 gauge wire
  - Sixteen penny nails
  - Styrofoam to punch into

In this station, use the buttonhole technique described in the “Set-Up” section to attach the braids and kabobs to the cardboard blanks as hair. We are creating two masks with two distinct sets of material. For one masks, use only plastic materials. For the other, used only cardboard and fabric.

*Assessment (Outcome 1 and 2) Students successfully braid two sections of hair, spiral cut a water bottle and make one “trash kabob” from repurposed materials, focusing on how to create intentional lines by processing materials.*





**During this lesson students learned how to be resourceful by using objects usually thrown away to create art supplies.**

#### **IV. Conclusion and Review (5 min.)**

During this lesson students learned how to be resourceful by using objects usually thrown away to create art supplies. They practiced techniques used by Washed Ashore to create community art and began to create the giant masks they will focus on for the rest of the art lessons in this unit. Finishing the hair for both masks may take more time than is allowed for in this lesson. If that is the case, leave stations set up in the back of the class for students to work at independently or arrange for an additional lesson with these stations.

*Assessment (Outcome 1, 2, and 3) Students work together to complete the hair of both masks using repurposed materials while keeping design elements and principles in mind.*

---

#### **V. Follow-up Activities**

##### **a. Repurpose Your Own Debris**

Work with students to craft a letter about recycling and reusing items that you can send home to parents. Emphasize the positive aspects of the projects we have been working on in class and try to stay away from negative or judgmental language. Ask parents to help students collect and clean items that were bound for the trash so that students can create their own recycled art project at home. After students' projects are complete, ask them to bring them into class and have a recycled art show. If students need ideas and inspiration, watch Washed Ashore's, "The Making of Turtle Ocean." This video details the process of Angela Pozzi creating a Washed Ashore exhibit for the Smithsonian National History Museum.

*Assessment (Outcomes 2 and 3) When students present their work to the class, ask them go through the process of what they used, how they chose their materials, and the idea behind their art. Have the students talk about the techniques and design ideas they used and if they used any of the ideas from the mask lessons.*



**Resourcefulness:  
Creating  
something of  
value out  
of something  
seemingly  
worthless.**

## **VI. Additional Resources**

### **a. Sources**

- **NOAA Marine Debris:**  
<http://marinedebris.noaa.gov/>
- **United Nations World Ocean Assessment:**  
<http://worldoceanassessment.org/>
- **Washed Ashore**  
[www.washedashore.org](http://www.washedashore.org)
- **YouTube, The Making of Turtle Ocean**  
[https://youtube.com/watch?v=E4V\\_RZ-p9-Y](https://youtube.com/watch?v=E4V_RZ-p9-Y)

### **b. Vocabulary**

In this lesson, these are words that may be unfamiliar to students. In this context, they have the following definitions:

**Line:** A line is a path that we can visually follow. Lines create the boundaries of shapes and forms.

**Process Materials:** Change the form of objects by cutting, folding, compressing, or other techniques.

**Resourcefulness:** Creating something of value out of something seemingly worthless.

**Language of the Arts:** At Washed Ashore, we believe that the arts are a language that can be learned and used to communicate with, just as any other language can be with practice. In visual art, design elements are the letters of this language, and design principles are the words.

**Design elements:** The building blocks of visual art, which include line, shape, form, color, texture, space, etc.

**Design principles:** These are ways to arrange the building blocks which include repetition, pattern, balance, movement, focal point, contrast, unity, etc.

**Materials:** Items or substances used to create visual art.

**Techniques:** Methods of creating visual art including painting, drawing, sculpting, photography, weaving, etc.

**Expression:** The underlying ideas, issues, and moods communicated through visual art.



## 2016 Washed Ashore Fact:

**Plastic pollution is becoming one of the most common items in the sea and has entered the bottom of the ocean food chain.**

## Washed Ashore Mission Statement:

Washed Ashore builds and exhibits aesthetically powerful art to educate a global audience about plastic pollution in oceans and waterways and spark positive changes in consumer habits.

## How We Fulfill Our Mission:

Our travelling exhibit of sculptures made completely of marine debris moves around the country in order to reach as many people as possible. Through both educational programs and interactions with our art and signage, we help audiences understand the problems of plastic pollution and marine debris. We offer educational programming at exhibit sites and support materials to educators interested in spreading awareness about plastic pollution through community art.

In order to create the sculptures we build, we first collect trash that has been removed from beaches through community beach cleanups and individual volunteers. This trash is then washed, sorted and prepared for the creation process. Each sculpture is designed and directed by a lead artist and then created through a collaboration of Washed Ashore team members, volunteers, students and artists.

## Washed Ashore Facts as of 2016:

- Over 65 giant sculptures have been created.
- Over 35,000 pounds of marine debris have been processed.
- Over 12,500 volunteers have contributed to this project.

## Marine Debris Facts as of 2016:

- Every ocean and every marine environment contain pieces of our trash.
- 80% of marine debris comes from land; from streets to streams to rivers to oceans.
- Plastic pollution is becoming one of the most common items in the sea and has entered the bottom of the ocean food chain.

## **National Standards Addressed:**

### **National Core Art Standards**

**Creating: Conceiving and developing new artistic ideas and work.**

- **Anchor Standard #1:** Generate and conceptualize artistic ideas and work.
- **Anchor Standard #2:** Organize and develop artistic ideas and work.
- **Anchor Standard #3:** Refine and complete artistic work.

**Presenting (visual arts): Interpreting and sharing artistic work.**

**Producing (media arts): Realizing and presenting artistic ideas and work.**

- **Anchor Standard #4:** Analyze, interpret, and select artistic work for presentation.
- **Anchor Standard #5:** Develop and refine artistic work for presentation.
- **Anchor Standard #6:** Convey meaning through the presentation.

**Responding: Understanding and evaluating how the arts convey meaning.**

- **Anchor Standard #7:** Perceive and analyze artistic work.
- **Anchor Standard #8:** Interpret intent and meaning in artistic work.
- **Anchor Standard #9:** Apply criteria to evaluate artistic work.

**Connecting: Relating artistic ideas and work with personal meaning and external context.**

- **Anchor Standard #10:** Synthesize and relate knowledge and personal experiences to make art.
- **Anchor Standard #11:** Relate artistic ideas and works with societal, cultural and historical context to deepen understanding.