OBJECTIVE:

Students will be introduced to the largest landfill on earth, The North Pacific Subtropical Gyre, also known as the Great Pacific Garbage Patch. Students will examine which ecosystems are affected by plastic debris and microplastics, and who primarily creates the pollution. Students will discuss how the Nurdles of micro plastics create serious health hazards as the nondigestible debris is commonly mistaken for food, and consumed by marine life. Students will practice resourcefulness using everyday found materials to create mixed-media art, and will examine the detrimental effect that human plastic waste products have on our oceans.

PURPOSE:

Students will raise their level of social consciousness, and demonstrate the art elements of line, texture and shape in their masks created from the reused materials of consumer waste single-use bottles and bags. Students will engage their creativity, discuss consumption, wastefulness regarding plastic waste; and acknowledge the overriding reality that our current usage is not sustainable. Students will acknowledge civic responsibility, personal consumption, wastefulness, and how our daily choices significantly impact our oceans. They will understand the relationship between creating the masks, and appreciating the deeper significance their artwork symbolizes.

VOCABULARY:

Gyre, Nurdles, microplastics, mixed-media art, Great Pacific Garbage Patch

TIME NEEDED: 3 classes, 60 minutes each
GRADE LEVEL: 5-8

MATERIALS:

• Collected Plastic Jugs
• Scissors
• Paint Brushes
• Tempera paint (for 2nd-5th)
• Glue/Water
• Pencils/Paper
• Plastic Bags, plastic wrappers (which can be cut up for collage)
• Variety of cut papers, tissue paper, tiny beads, feathers etc. for detailing

DISCUSSION QUESTIONS:

Who is largely responsible for creating the garbage?

Who is responsible for creating The Great Garbage Patch, and who should help clean it up?

Why is it important to stop producing so many single use, disposable plastic products?

What is the intended life cycle of most plastic packaging?

What are some unintentional consequences of human innovation?

How can students serve as community agents of positive change?

How can students promote environmental sustainability within their own schools and homes?

What is the origin of everyday packaging products and why do most come from limited, precious natural resources?

How do plastics end up all the way to the middle of the Pacific Ocean?

How can kids prevent trash from getting into waterways and help make sure that garbage is disposed of properly?

The teacher will introduce the project by stating the lesson objectives, and have “North Pacific Gyre”, “Microplastics”, and “Great Pacific Garbage Patch” posted.

The teacher will educate the students on the Great Pacific Garbage Patch (GPGP). The GPGP is twice as big as the state of Texas, which floats in the ocean between California and Hawaii. Students will learn how plastic accumulates in the ocean, washes up on coastlines, entangles animals, and is ingested by marine life. They will
learn that the Garbage Patch is caught in a gyre, which is a circular or spiral ocean current. The teacher may choose to show students the following videos:

Gorilla in the Green House (Age appropriate for all grades):
https://www.youtube.com/watch?v=XV0fP4HuFCo

For older students:

The Bay vs The Bag:
https://www.youtube.com/watch?v=jSD21zp89zM

Good Morning America:
https://www.youtube.com/watch?v=WtewmJ78hzw

TED Talk addressing the Great Pacific Garbage Patch:

Students will learn how plastic breaks down into tiny, often minuscule bits, called nurdles, or micro plastics. This debris has catastrophic consequences on marine life. These particles greatly affect birds, fish, mammals and ocean ecosystems. When eaten, micro plastics cannot be digested by the animals and can cause blockage of the gastrointestinal tract. Marine life is also at risk as they “feel full” and intake less food, resulting in malnutrition and starvation. The micro plastics can poison the marine life due to the “leaching”, where toxic chemicals are absorbed after digestion. It is commonly noted that ninety percent of Laysan albatross chick carcasses are found with plastic inside of them.

Students will be shown photographs from around the world of plastic waste:
https://www.google.com/search?q=free+images+of+plastic+waste&biw=1395&bih=802&source=lnms&tbm=isch&sa=X&ved=0CAYQ_AUoAWoVChMI5sbliJuCxwLVkxeSCh1wuACW#tbm=isch&q=free+images+plastic+waste+in+ocean

Teachers will lead a discussion on ways to cut down plastic bottle and jug use, as well as brainstorm ideas to reuse and repurpose plastic jugs.

Teacher will present a variety of images of masks from around the world, and discuss traditional meanings of masks, various cultural examples, and a brief history of mask making.

Students decide upon a particular cultural look that most inspires them, and begin to make pencil plan sketches for their masks.

Students will understand how masks can evoke emotion and will brainstorm on the expression they would like their mask to communicate. The masks may represent the distressed faces, horrified, in response to environmental pollution. Or students may choose to design a happier mask, optimistic that proactive students will make wiser, more environmentally conscious choices. Student should be able to articulate what their expression choice signifies, whether their mask is horrified, or optimistic for the future.

The teacher will demonstrate examples of paper sculpting techniques that can be used to build onto the mask.
form in order to add character. The teacher will show examples of curling cut plastic for hair or detailing, and demonstrate adding unique characteristics to the 3-D masks.

Students will be given the collected plastic jugs, and be instructed how to carefully cut the plastic for the basic facial form of the mask.
The teacher instructs students to paint the background color of the mask with tempera paint before the students begin adding details. Teachers also could give students the option of using a glue/water mixture brushed on to adhere cut tissue paper, or plastic wrapping cut, in order to achieve a “collage background” colored look.

Teachers will show how to layer color, textures, patterns, and remind students to use sculpting techniques. Each three dimensional mask should exhibit design principals of balance, unity and repetition. Symmetry of the mask form, abstraction, layering of color, as well as unity should be discussed.

Students should introduce the concept of “breaking the form” and show examples of unique ways to extend beyond the edge of the mask, such as adding shapes, zig zag edges, hats, beard, hair, glasses, or horns. Teacher will show various ways of adding sculptural relief in order to change form. Students should be shown examples of distortion and exaggeration of basic geometric forms in design work.

Teachers will explain that students must exhibit and practice craftsmanship in gluing, cutting and designing. They will utilize the principles and elements of design to demonstrate balance, harmony and repetition.

Teacher will demonstrate finishing techniques and addition of possible final embellishments (tissue paper, paint, found plastic). Students will learn how to cut plastic bags into strips, to use as decorative detailing. Final additions of tiny bead like embellishment can be used to represent and symbolize micro plastics. Teacher will explain how some masks can display an emotion of sadness representing how the student my be distressed by
environmental pollution. Teacher can give the example that as a response to learning about the Great Pacific Garbage Patch, a mask may “cry” tears of micro plastics. As the collection of masks are hung in the school, there is opportunity for them to represent a body of emotional faces “watching over” the passing students, and reminding them to make more socially conscious choices.

INTERDISCIPLINARY CONTENT
- Connection to science while addressing environmental water, conservation, species and habitat
- Social studies connection regarding the geography of the North Pacific Subtropical Gyre

ART ELEMENTS
- Shape
- Form
- Color
- Space

ART SKILLS
- Drawing
- Painting
- Collaboration

NATIONAL STANDARDS:
- Visual Art Standard 1: Understanding and applying media, techniques, and processes
- Visual Art Standard 3: Choosing and evaluating a range of subject matter, symbols, and ideas
- Visual Art Standard 4: Understanding the visual arts in the relation to history and cultures