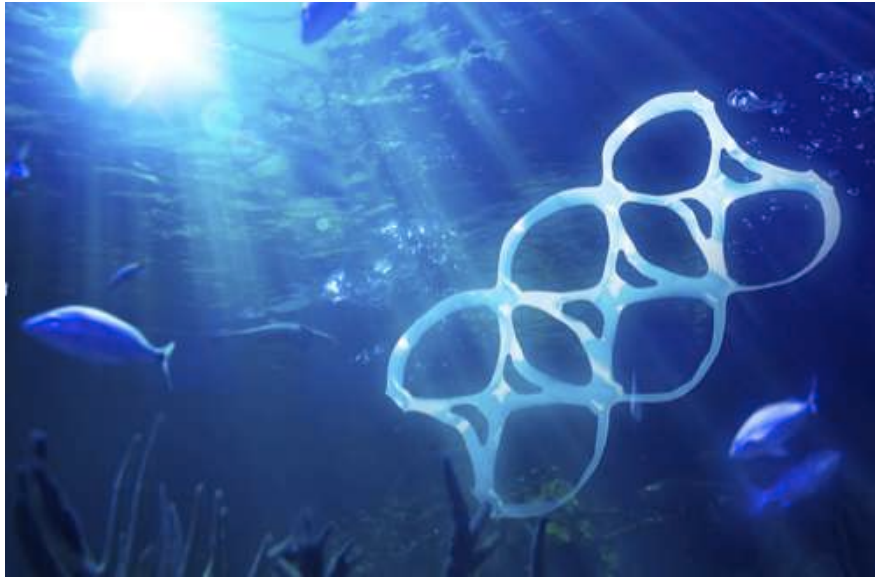


Once is Not Enough: Single Use Disposable Plastic is Changing Our Oceans



OBJECTIVE:

Students will examine how human behavior, and a culture of convenience is disrupting the environmental balance and future stability of our planet. They will examine bottle consumption, and research the detrimental ramifications from plastic on our oceans, waterways and marine life. Students will collaborate on community solutions and see how single use plastic can be upcycled to create cooperative art.

PURPOSE:

Students will examine their own part in the sustainable use of plastic, and they will orient themselves to the lifecycle of a plastic bottle. Students will learn that plastic bottles do not biodegrade, but photodegrade, and how the broken down nondigestible microplastic debris affects marine life. They will examine the American trash epidemic, and understand that many bottle caps are not recycled, and why. Students will collaborate to upcycle bottle caps into a class mural, and share awareness of the sustainable disposal and use of plastic in their school community. Students will examine how creativity and collaboration can encourage awareness, and recognize how their mural can educate and inspire change within their community.

VOCABULARY:

Mixed-Media Art, Mural, Color Theory, Collaboration, Contrast, Unity, Balance, Landscape, Horizon Line, Depth, UpCycle, Biodegrade, Photodegrade, Nurdles, Microplastics, Reduce, Recycle, Landfills, Renewable, Nonrenewable, Petroleum, Fossil Fuels, Energy Conservation, Perspective

TIME NEEDED: 3 Classes, 60 minutes each

GRADE LEVEL: 2nd-8th

MATERIALS:

- Paper/Pencils for design
- Large piece of board (flat foam board /cardboard) or plywood for a permanent installation
- Non-toxic glue or glue gun
- Examples of images (landscapes, endangered marine animals) to inspire design
- Multicolored/sized plastic bottle caps

DISCUSSION:

Why must all nations work together on ocean conservation?

Why do all countries share the responsibility of protecting marine resources?

Why should we stop using so many single use, disposable plastic bottles?

What is the origin of most packaging and how does it affect natural resources?

How can students encourage community recycling, and what can they do to prevent bottle caps being properly disposed of or recycled if possible?



Why are most bottle caps not recycled?

What happens when fish or other marine life ingest small pieces of plastic?



When we throw something away, where is “away”?



PROCEDURE:

- Teachers will educate students on the production process of plastic, and that it is made from the nonrenewable resource, petroleum.
- Teachers will launch a school campaign to collect colored bottle caps.
- Students will learn that plastic is not biodegradable, but photodegrades (breaks down into small bits of plastic, or nurdles, which are mistakenly eaten by marine life.) Humans then, in turn, consume seafood, and students will brainstorm on the potential cause and effect of this food web.



- Teachers will explain that often recycling facilities do not process bottle caps, as they are usually made from a different type of plastic from the bottle, and the caps are difficult to sort:

<http://www.npr.org/templates/story/story.php?storyId=92510162>

- Teachers will set up a “cleaning station” and students will rinse the caps with soapy water and let to dry.
- Students will then sort the bottle caps by color.



- Small groups will take turns painting the predetermined landscape, marine animal, or design on the board. Once the paint has dried, the bottle caps can be laid out and arranged.
- In small groups, students can begin to glue down and attach the bottle caps to the board. (In a permanent installation mural, there is also the option for bottle caps to be drilled with small screws into the plywood board with the use of parent volunteers.)





- Once the glue is dried, the murals are hung in a visible part of the school.
- Teachers facilitate a discussion on the “message” of the class art, and teachers assist the students to collaboratively write an artist statement regarding their mural, which should be hung next to the art.



- Bottle caps may also be attached on their “side” to achieve the desired effect of a contour line or detailing:



ART ELEMENTS:

- Color
- Space
- Shape

- Form

ART SKILLS:

- Drawing
- Collaboration
- Painting
- Collage

INTERDISCIPLINARY CONTENT

- Connection to science while addressing environmental water and climate issues
- Social studies connection regarding global responsibility to environmental efforts.

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 5: Reflecting upon and assessing the characteristics and merits of their work and the work of others