

# STRAWS



## Discovery Education Earth Day Virtual Viewing Party featuring STRAWS

Sparked by research that plastic straws are among the top-five beach litter items collected, the documentary *STRAWS* outlines the history of straw use around the world; the issue and impact to marine life, the ocean, and our environment of how we discard single-use plastic items; and actionable steps we can all take to create sustainable change.

In this virtual viewing party, students discover how a viral video of a sea turtle and a straw led to a movement that is helping to reduce plastic waste in the ocean and preserve the health and habitats of marine life around the world. In 2011, it was determined that roughly 8 million metric tons of plastic waste enter our oceans each year, mainly due to trash and debris in urban runoff. It is estimated that 175 billion plastic straws end up in landfills each year, many of which can end up in our waterways along with other types of plastic trash. Plastic takes decades to degrade in the ocean, breaking down into small pieces called microplastics. Wildlife, such as sea turtles, can ingest these microplastics, which can leach toxins and attract other pollutants in marine ecosystems.

During the Discovery Education Earth Day virtual viewing party, students will meet:

- *STRAWS* producer/director Linda Booker and learn why the issue of single-use plastics is so important for us to address.
- Jackie Nunez, the founder of *The Last Plastic Straw*. Jackie explains how the sight of plastic waste in her beloved oceans inspired her to act.
- Eleven-year-old Max Machum whose *No Straw Challenge* in Costa Rica encourages restaurants and businesses to hand out plastic straws only by request and to provide eco-friendly plastic straw alternatives, such as stainless steel or paper straws that can be reused or are biodegradable.

We can all join in the movement against the plastic waste that is impacting our oceans by making choices that reduce the amount of plastic we throw away every day and encouraging our friends, families, and communities to do the same. Happy Earth Day!

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## Before the Viewing Party

Explain to students that this virtual viewing party will focus on a movement that is helping to reduce plastic waste in the ocean. Use the following questions to see what students already know about this topic.

- What is “your water?” What are memories or experiences you’ve had with water (oceans, lakes, rivers) that makes it important to you?
- Why do people use straws? For what were they invented? What problem is the use of straws trying to solve?
- How many straws do you think you use in a week? How many do you think end up in landfills each year?
- Do you think plastic straws are recyclable?
- How does plastic waste get into our oceans?
- What problems do you think plastic waste in the ocean might cause?

## During the Viewing Party

Use the strategy [Vocab Scavenger Hunt](#) to focus students on key concept words presented during the video. Guide individual students to divide a piece of paper into eight pieces. Ask them to write a vocabulary word or phrase on each piece. Use the following words: biodegradable, recyclable, disposable, mass production, viral, imposter, stainless steel, coastline. Students should then be directed to mix them up. In small groups of 3–4, have students discuss which words are familiar and share their understanding of the meanings. As a whole group, invite students to share and review the words and their meanings. Explain to students that, as they watch the viewing party, they will work with a partner to place the vocabulary words in order as they are heard. After the video segment concludes, challenge students to use the vocabulary words to summarize the main ideas presented.

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## After the Viewing Party

### ELEMENTARY - Sea Sculptures

Repurpose plastic waste at your school into pieces of art with a conservation message. Ask students to bring in plastic waste from home or collect plastic waste at the school, including plastic straws. (All plastic pieces should be rinsed and dried prior to the activity.)

Challenge students to use the plastic waste that otherwise might have ended up in the trash -- along with glue, markers, paint, and other simple art supplies -- to create a three-dimensional art piece or sculpture that encourages people to protect marine life by reducing their plastic waste. Students can work in pairs or small groups to create their art pieces. Once creation is completed, direct students to write a series of sentences or a story that explains the process and materials they used to create their piece, statistics about waste in the ocean, and what the viewer should learn from the piece about the dangers of plastic waste for marine wildlife. Encourage students to create an art show and gallery walk to share and discuss their pieces and the meanings behind them.

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## MIDDLE SCHOOL - Reinventing the Juice Box

Thanks to campaigns like *The Last Plastic Straw*, many cities and companies are committing to reducing and/or stopping distribution of plastic straws. Share with students that several companies have pledged to phase out disposable plastic straws entirely. One solution to replace straws is the design of a plastic lid for cold drinks that can be recycled (unlike plastic straws).

Ask students to consider what problems straws solve and what was covered in the virtual viewing party about why straws were invented in the first place. Conversations may lead to the fact that straws are helpful for babies and young children to help them drink and eliminate spills. Just like sodas and frappes that too often use straws, millions of juice boxes are sold each year that include plastic straws. Ask: Is there a way to design a new juice box that can eliminate the use of plastic disposable straws and still help to reduce spills and make drinking easy?

Invite students to form groups and use simple materials such as cardboard, paper, glue, and scissors to design and create a 3-D prototype model of a new “plastic strawless” juice box for kids. They should think about the shape of the box and how it will make drinking easier. Will it have some type of straw alternative? What recyclable materials will it be made of? Direct groups to first create sketches of their ideas and label the materials they would use. Then, using the available materials, guide students to build their prototypes. Remind students that their prototypes will help show how their products will look and function. This can help work out kinks before going to market. Encourage students to present their products to the class for feedback that can help refine their ideas for future iterations.

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## HIGH SCHOOL - Interactive Ocean Infographics

Ask students how the story of single-use plastic use and its impact can be told in one graphic. One solution to helping an audience understand a complex problem is by creating an infographic.

Challenge students to use statistics, pictures, online articles, and videos to create an interactive infographic using online platforms or to create a 2-D oversized infographic on cardboard or poster board. Student-created infographics should inform the reader about a subject relating to the prevalence and types of waste in our oceans, and the danger to marine life this waste presents.

Students should first decide what message they want their infographic to convey. They may choose to focus on a broad topic, such as the types and amounts of plastic waste in the ocean, and how long it takes to break down (if it breaks down at all). They may choose to focus on the impact of plastic waste on a specific marine species or ecosystem, such as a coral reef; or they may choose to teach their audience about a topic such as nanoplastics or innovations and movements that are helping to combat plastic waste in the ocean.

Encourage students to use the internet to research facts related to their chosen topic or focus. These facts, along with pictures, articles, videos, and music can be added to their infographics to create interactive elements that allow the user to use technology to control the flow of information and learn about a topic using different types of media. Students can share their completed infographics with each other to interact with and learn about the various topics related to plastic waste in the ocean.

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## Take Action Ideas

After viewing the clips, students may be looking for concrete ways they can take action. Here are some ideas to ignite action in your school or community.

- Work with the cafeteria managers and administration at your school on ways to reduce the use of straws during lunch.
- Buy a reusable straw and use it around your friends and family!
- Visit local cafes and restaurants to encourage them to only give customers straws by request or to look for alternatives to plastic straws.
- Create a class or personal social media campaign through Twitter, Facebook, or Instagram that will inform people about topics and news related to plastic ocean waste
- Volunteer to participate or host a beach or environmental cleanup through an organization such as [OceanBlueProject.org](https://www.oceanblueproject.org) or [OceanConservancy.org](https://www.oceanconservancy.org).

To learn how you can access the full *STRAWS* film and Next Generation Science Standards STEM/STEAM curriculum, go to [VideoProject.com/Straws-Edu.html](https://www.VideoProject.com/Straws-Edu.html).