

# Materials for the Arts

**Sustainability Curriculum Guide**

# We love our planet.

**And right now our planet is facing many environmental problems.**



# Humans Affect the Environment

Human beings negatively impact our shared environment through:

- Pollution
- Deforestation
- **Burning fossil fuels**

These actions done on a massive global scale have led to many **negative environmental effects** including:

- Soil erosion
- Poor air quality
- Undrinkable water

...And much more.

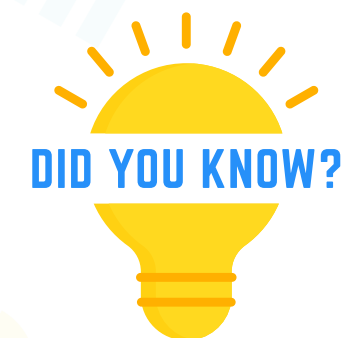




# Humans Produce Excessive Waste

Humans are responsible for producing several types of waste including:

- Municipal solid waste
- Hazardous waste
- Industrial non-hazardous waste
- Agricultural and animal waste
- Medical waste
- Radioactive waste
- Construction and demolition debris
- Extraction and mining waste
- Oil and gas production waste
- Fossil fuel combustion waste
- Sewage sludge



The average American produces **4.9 pounds** of waste per day, amounting to 1,788 pounds per year.<sup>1</sup>

1. "National Overview: Facts and Figures on Materials, Wastes and Recycling | US EPA."

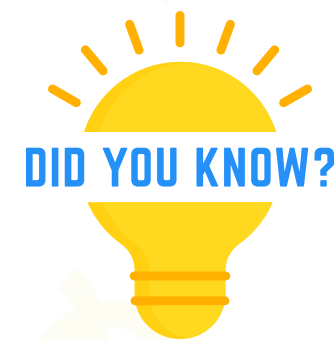
# Too Much Trash

Pollution from garbage and single-use plastic is invading our oceans. Every day, the equivalent of **2,000 garbage trucks** full of plastic are dumped into the world's oceans, lakes, and rivers.<sup>1</sup>



Americans make up 4% of the global population yet contribute 12% of the world's trash.<sup>2</sup>

Trash is disposed of in either landfills where it is buried or incinerators where it is burned. Both have negative environmental and social impacts.



NYC's trash is sent to landfills and incinerators in New Jersey, Pennsylvania, Ohio, South Carolina, Virginia, and upstate New York.<sup>3</sup>

1. "Plastic Pollution."

2. Smith, "US Tops List of Countries Fuelling the Mounting Waste Crisis."

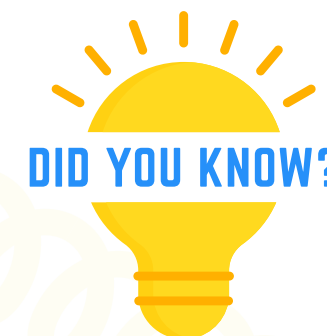
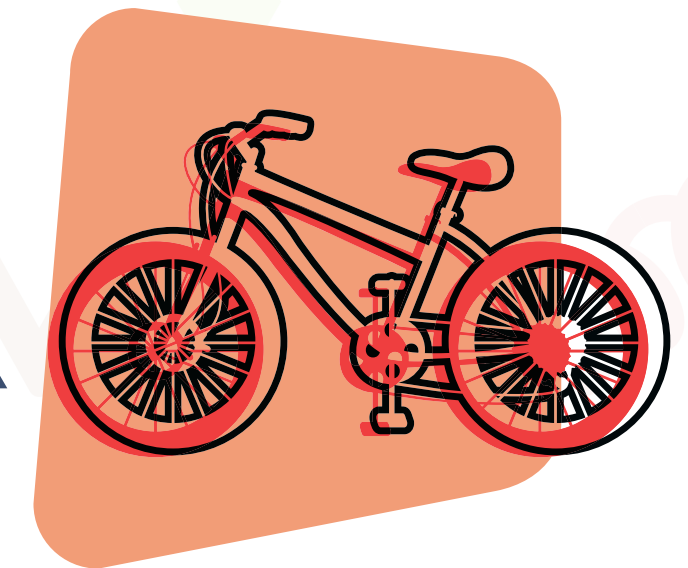
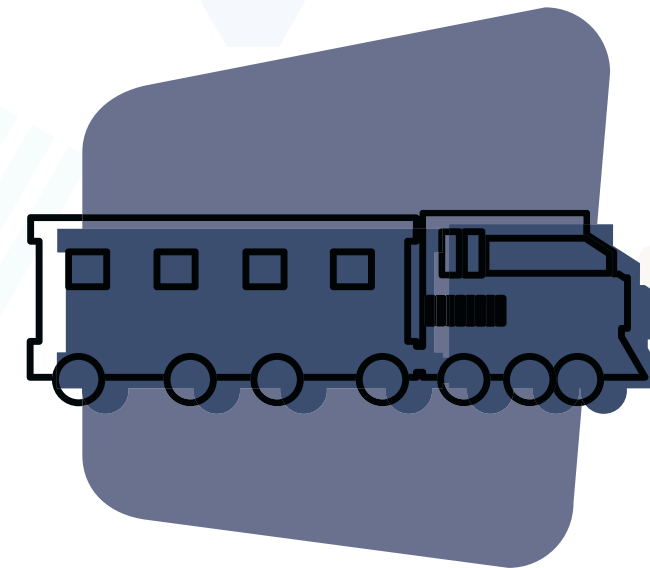
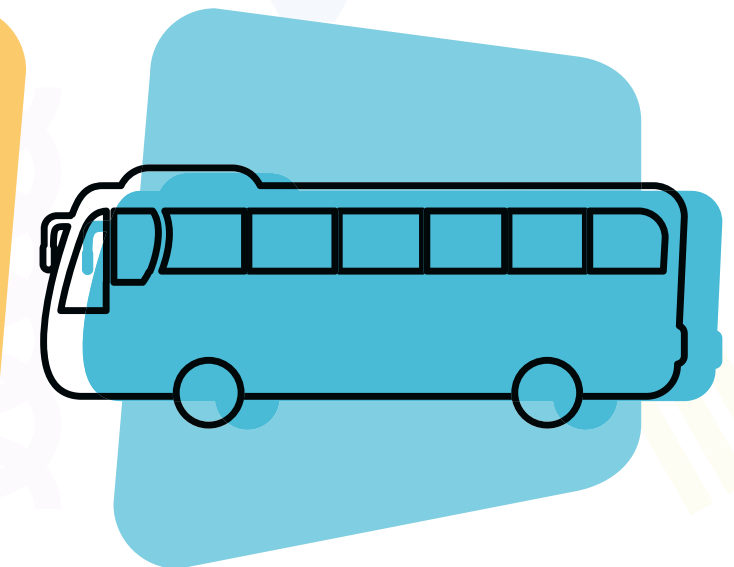
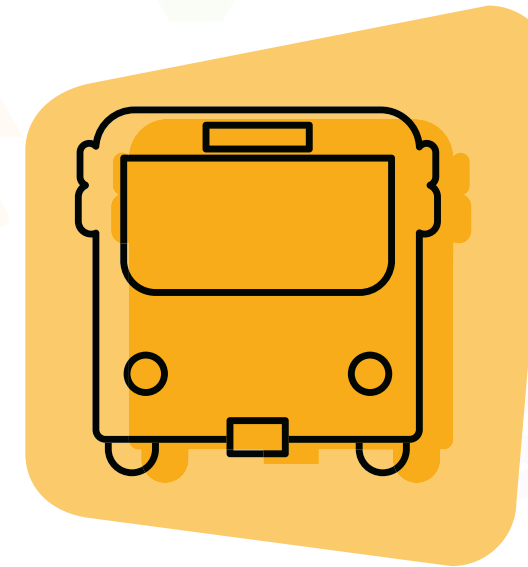
3. Waste 360 Staff, "The Impact of NYC's Trash on Other Communities."

# Our Lifestyles Contribute to Global Waste Production

The way we eat, commute, use energy, and discard our waste has a large impact on our environment. Think about whether you:

- Eat meat multiple times per day or mostly eat plant-based
- Drive when you can take public transportation, bike, or walk to your destination
- Use single-use plastics or reusable utensils when eating out
- Air dry your clothing or use the dryer
- Recycle/donate or just throw everything you don't need anymore into the trash

Large companies play a huge role in increasing waste production levels, but on an individual level, our actions make a collective difference as well.



A commercial flight from NYC to Paris produces over 1,000 pounds of carbon dioxide equivalent per person.<sup>1</sup>

1. "Travel Impact Model."

# We Can Fix It!

**The harm done to our environment can be mitigated by us, today, for those tomorrow.**



# The 4 R's to a Healthier Future



**Reduce**



**Reuse**



**Recycle**



**Rethink**



# Reduce

## HOW?

- We can stop waste before it is created
- We can avoid single-use objects by using reusable bags and containers
- We can opt-out of buying the latest trend

## WHO?



**Betty Beaumont - Conceptual Artist**

“In recent years, the fashion industry has had a massive negative impact on the environment.”<sup>1</sup>

1. Furnace, “Goings on | 01/17/2022.”

**Materials for the Arts**

## WHERE?

### **NYC Public Schools Office of Sustainability**

The NYC Public Schools Office of Sustainability promotes waste reduction by implementing Plastic Free Lunch Day. They also share resources to create more sustainable schools.



Commit to buying less and taking care of the things you already own. For example, if your boots are worn, take them to the cobbler to be fixed up instead of tossing them and buying a new pair.



# Reuse

## HOW?

- We can reuse items we frequently toss out
- We can donate items we no longer need in order to make them available to others
- We can create art by reusing materials

## WHO?



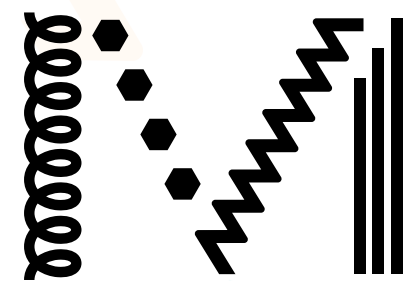
**Kate Rusek - Visual Artist**

“Reusing materials is a transformative act of care and a moment to slow down and reevaluate our perceptions. This practice allows us to imagine an abundant future.”

Materials for the Arts

## WHERE?

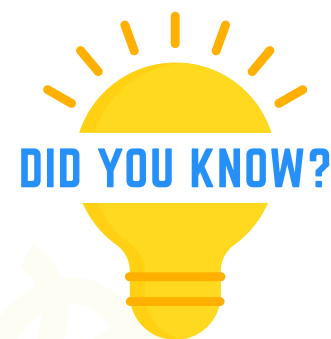
### **Materials for the Arts (MFTA) Creative Reuse Center**



**Materials  
for the Arts**

New York City  
Department of  
Cultural Affairs

We give unwanted items the opportunity to become something new through creative reuse, inspired education, and unlimited imagination.



MFTA hosts a creative reuse community event every third Thursday of the month. Anyone is welcome to attend!

# Recycle

## HOW?

We can reduce waste diversion by separating items:

- **Blue** Bin: Metal, rigid plastic, glass, cartons
- **Green** Bin: Mixed paper and cardboard
- **Brown** Bin: Organic waste that can be transformed into compost

## WHO?



Where does our plastic go? Track your trash!

### **Sto Len - Public Artist in Residence for DSNY**

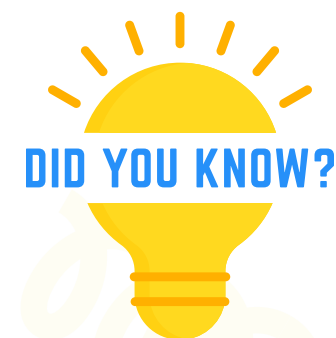
“When we throw something away, it doesn’t just go ‘away.’ Away is a place.”

1. Gardner, “On the Trail of New York’s Paper Waste.”

## WHERE?

### **Department of Sanitation (DSNY)**

DSNY keeps NYC clean, safe, and healthy by collecting, recycling, and disposing of waste, cleaning streets, attacking the scourge of illegal dumping, and clearing snow and ice.

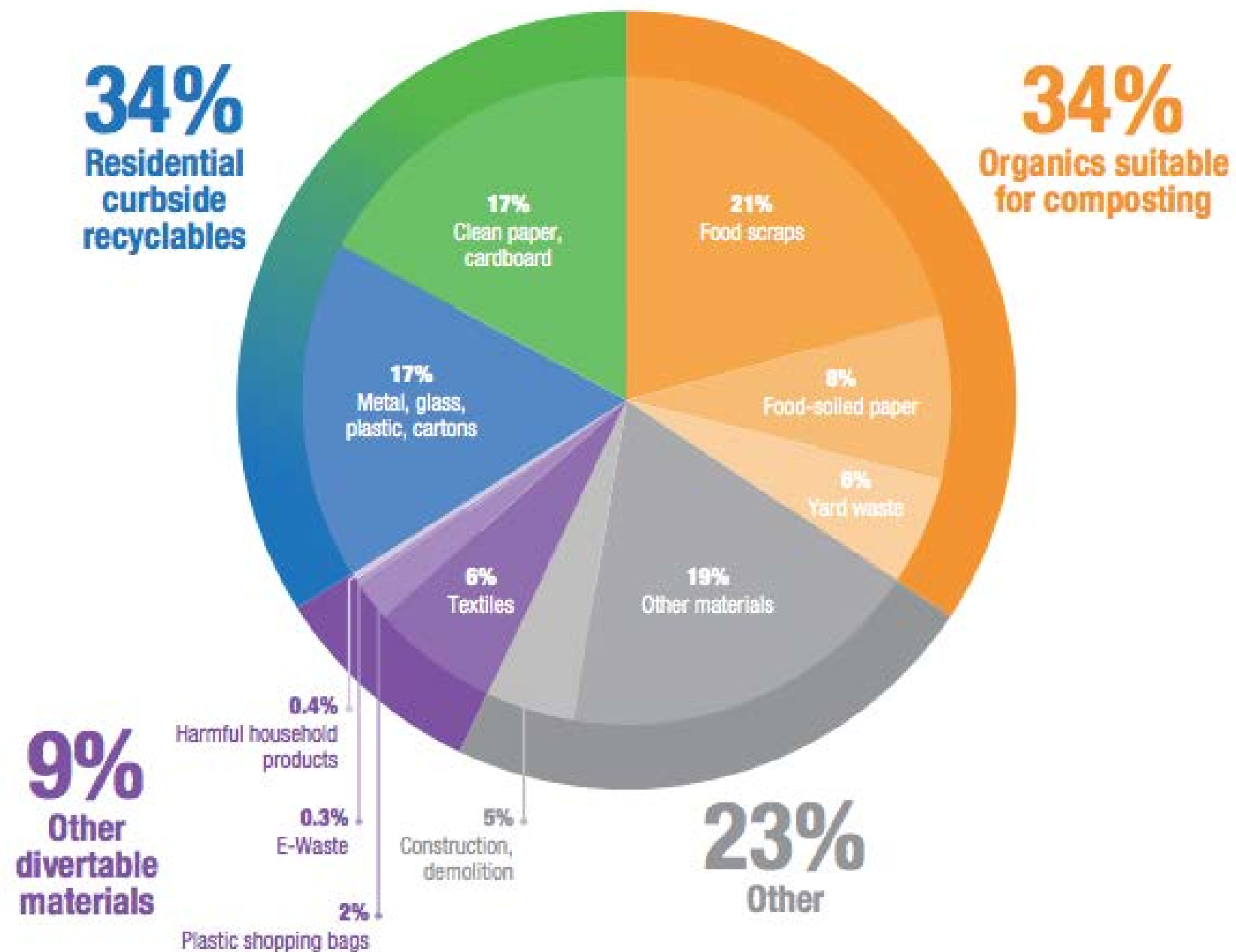


In NYC, paper and cardboard set out for recycling goes to Pratt Industries in Staten Island, where it is recycled into pizza boxes!<sup>1</sup>

# Recycle

## NYC Residential Waste Profile in 2017 <sup>1</sup>

2017 Composition of Residential Curbside Aggregate Discards



Around one-third of New York City's residential waste is recyclable, another third is compostable, and 6% consists of textiles.

If these materials were separated from regular trash, NYC could divert 74% of its waste away from landfills and incinerators.

Despite this potential, New York City's diversion rate has remained stagnant at about 17% for years.

There is a substantial disparity between the potential 72% diversion rate and the current 17%.

**What factors do you believe contribute to this diversion gap? How can we increase recycling, composting, and otherwise diverting?**

1. Kathryn Garcia, "2017 NYC Residential, School, and NYCHA Waste Characterization Study."

# Rethink

## HOW?

- Improving education and science exploration
- Promoting feminism and the rights of indigenous people
- Reducing meat consumption

## WHO?



### Lina Puerta - Visual Artist

“There’s a crazy cycle of overproduction of goods that is part of the imbalance that we have created in our own ecosystem.”<sup>1</sup>

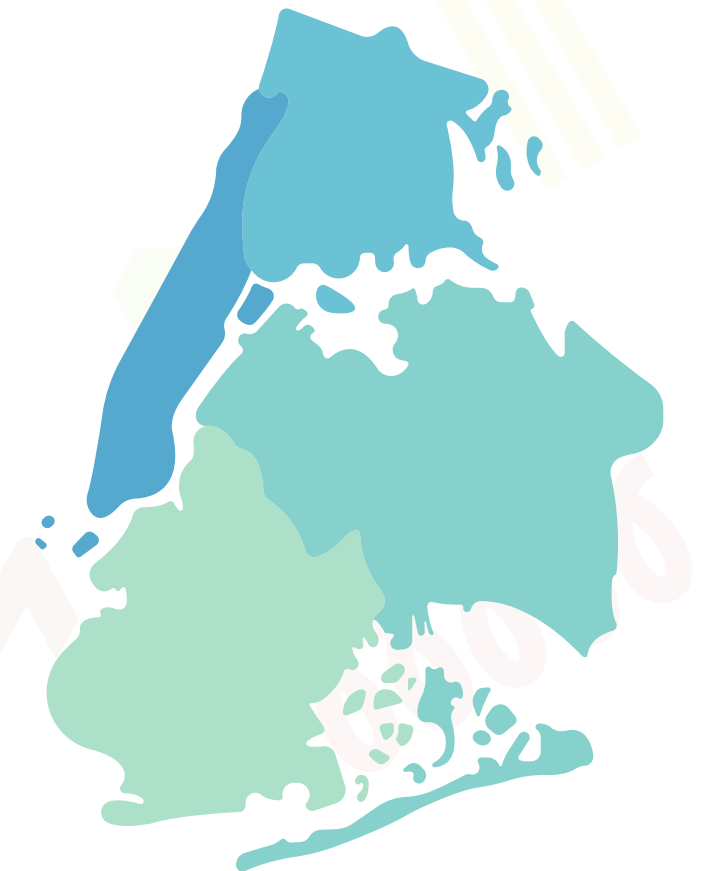
1. Rahmanan, Weaver, and Culgan, “These Radical New Yorkers Are Using the NYC’s Trash for Their Art.”

### Materials for the Arts

## WHERE?

### Your Community

**YOU** can make a difference by rethinking! Support your ethical local businesses, rethink how you produce carbon, and get involved with your local government. We are in the building stages of a just, sustainable future. We need you to help us RETHINK!



How do we collaborate and support indigenous populations? Learn more at [If Not Us Then Who?](#)

# Rethink!

**A sustainable future is possible.**



# Discover Your Unique Role



<sup>1</sup> Dr. Ayanna Elizabeth Johnson created the Climate Action Venn Diagram (similar to the Japanese concept of Ikigai, meaning a person's life purpose).<sup>2</sup>

Make your own Venn Diagram! Think about:

- What are you good at?
- What is the work that needs doing?
- What brings you joy?

*Your climate action can be found at the intersection of your skills, your passion, and the climate work that needs doing.*

1. "Climate Action Venn Diagrams — Ayana Elizabeth Johnson."

2. Gaines and Gaines, "The Philosophy of Ikigai: 3 Examples About Finding Purpose."

# Join Youth Groups Fighting For a Better World

As citizens, we can shape our future!



*Youth plaintiffs await the start of the nation's first youth climate change trial at Montana's First Judicial District Court on June 12, 2023 photo courtesy of William Campbell/Getty Images.*

1. Clark, "Kids Sued Montana Over Climate Change and Won."



# Fight for Policies in Favor of Sustainability

As citizens, we have the agency to support governments and policies that make us rethink the way we live in communities.

In August 2023, Ecuadoreans voted to ban oil drilling in the Amazon rainforest's Yasuní region, "one of the most biodiverse areas in the world and home to several Indigenous communities."<sup>1</sup>



*Aerial view of the Tiputini Processing Center of state-owned Petroecuador in Ecuador's Yasuni National Park photo courtesy of Rodrigo Buendia/AFP via Getty Images.*

1. Osborne, "Ecuadorian Voters Reject Oil Drilling in the Amazon's Yasuní National Park."

# We Can Change Now!



We are part of a large ecosystem and all our actions have an impact on our environment.

Even the way we create art can affect the planet.

It's time to be more conscious of our decisions to actively help reverse the damage done to our planet.

# Materials for the Arts

**Learn about MFTA's role in promoting environmental sustainability and reducing the amount of waste created in NYC!**



# Materials for the Arts (MFTA)

MFTA is New York City's premier creative reuse center providing nonprofit NYC arts organizations, public schools, and city agencies with access to free materials. This program is made possible by the NYC Department of Cultural Affairs. We strive to keep these valuable items from entering the landfill and instead putting them into the hands of arts professionals, educators, and students across the five boroughs. We give unwanted items the opportunity to become something new through creative reuse, inspired education, and unlimited imagination. We collaborate with artists that help us expand and share our mission.

## LEARN

Incorporate creative reuse at home and at school.

## REUSE

Visit our warehouse to discover materials waiting to be reused.

## RETHINK

What could be changed into something new?

# MFTA's Impact

Last year, Materials for the Arts saved 1,445,560 pounds of material from the waste stream, offsetting as much CO2 emissions as 490,869 trees. That is 22 times the number of trees in Central Park!



*Aerial view of Central Park photo courtesy of Andrew Bertuleit/iStock.*

# Projects to Try Out: Malaguas

## We all can take care of water

Jellyfish are known in Peru as malaguas (“mala agua”) which literally means bad water. Plastic and textile pollution in oceans and seas have affected marine and freshwater ecosystems.

In light of recurrent droughts, floods, and wildfires, students will have the opportunity to reflect on how climate change affects our relationship with water.

This workshop will spark conversations about water pollution while making a Jellyfish (lamp/chandelier) made of upcycled CDs, plastic bags, cartons, and textiles.



# Projects to Try Out: Malaguas

## Goals:

- Learn about water pollution
- Recognize how technological advances leave devices obsolete, increasing our carbon footprint

## Subjects:

- Science
- Biology
- Social studies

**Time:** 20 min

**Ages:** 5-15 year olds

**Materials for the Arts**

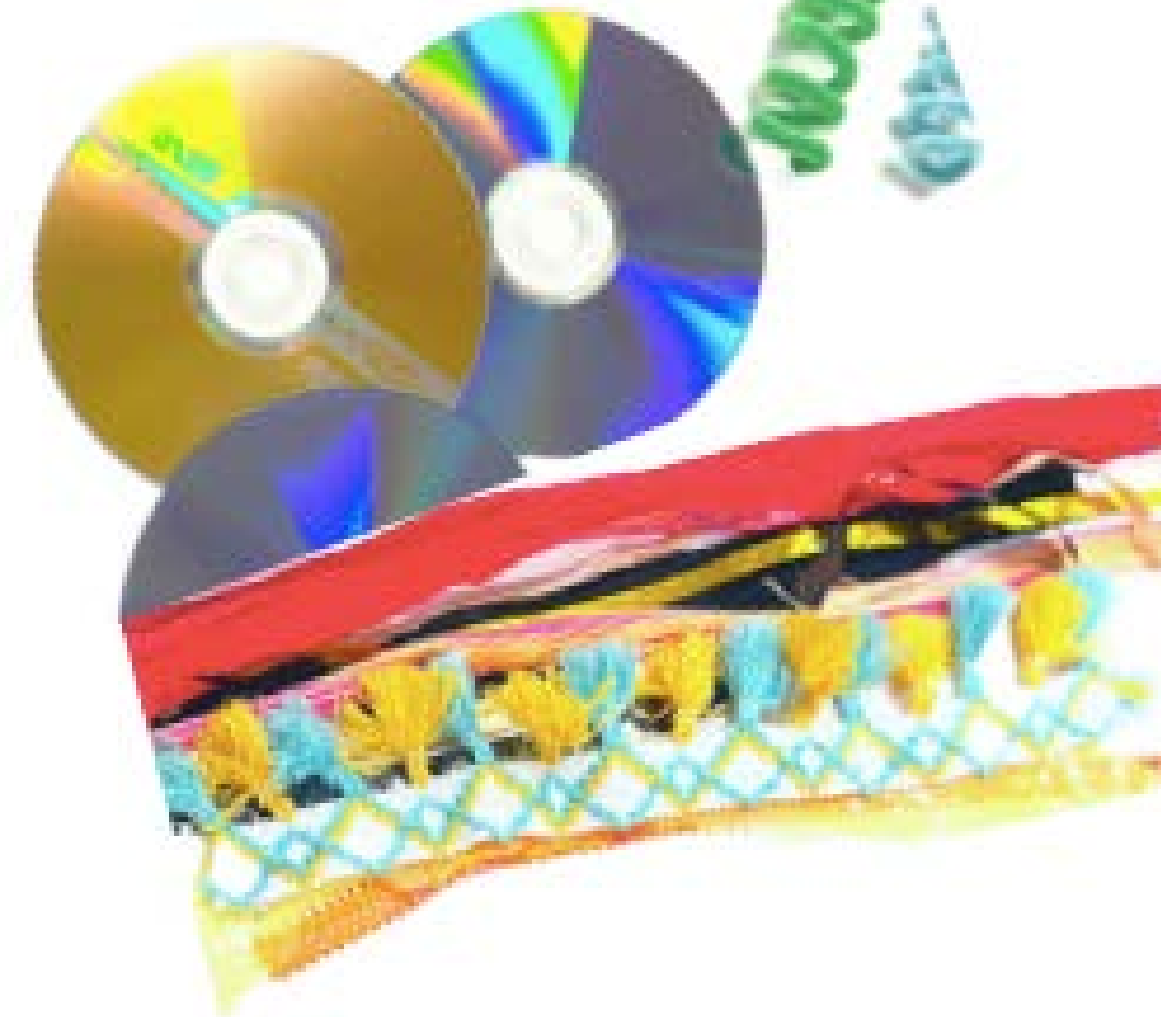
## Materials:

- CDs
- Textiles
- Plastic bags
- Ribbons
- Pipe cleaners

## Vocabulary:

- Pollution\* and pollutants
- Waste\*, recovered materials, and sustainability\*
- Anatomy, ecosystem\*, and oceans
- Identity\*

*\*Find definitions for these terms at the end of this presentation.*



# Projects to Try Out: Malaguas

## Beginner:

Invite students to dance holding their Malaguas in the air.

## Intermediate:

Incorporate a hot glue station with beads, buttons, etc.

## Advanced:

Invite students to take a glance into the Andean Cosmovision that humanizes nature. Ask them to write a letter to the water.

- 1 Cut your material into strips and line them next to each other.



- 2 Hold one end of the strips together.



- 3 Poke the bundle strips through the CD hole.



- 4 Wrap a pipe cleaner around the bundle strips and your Malagua is ready.



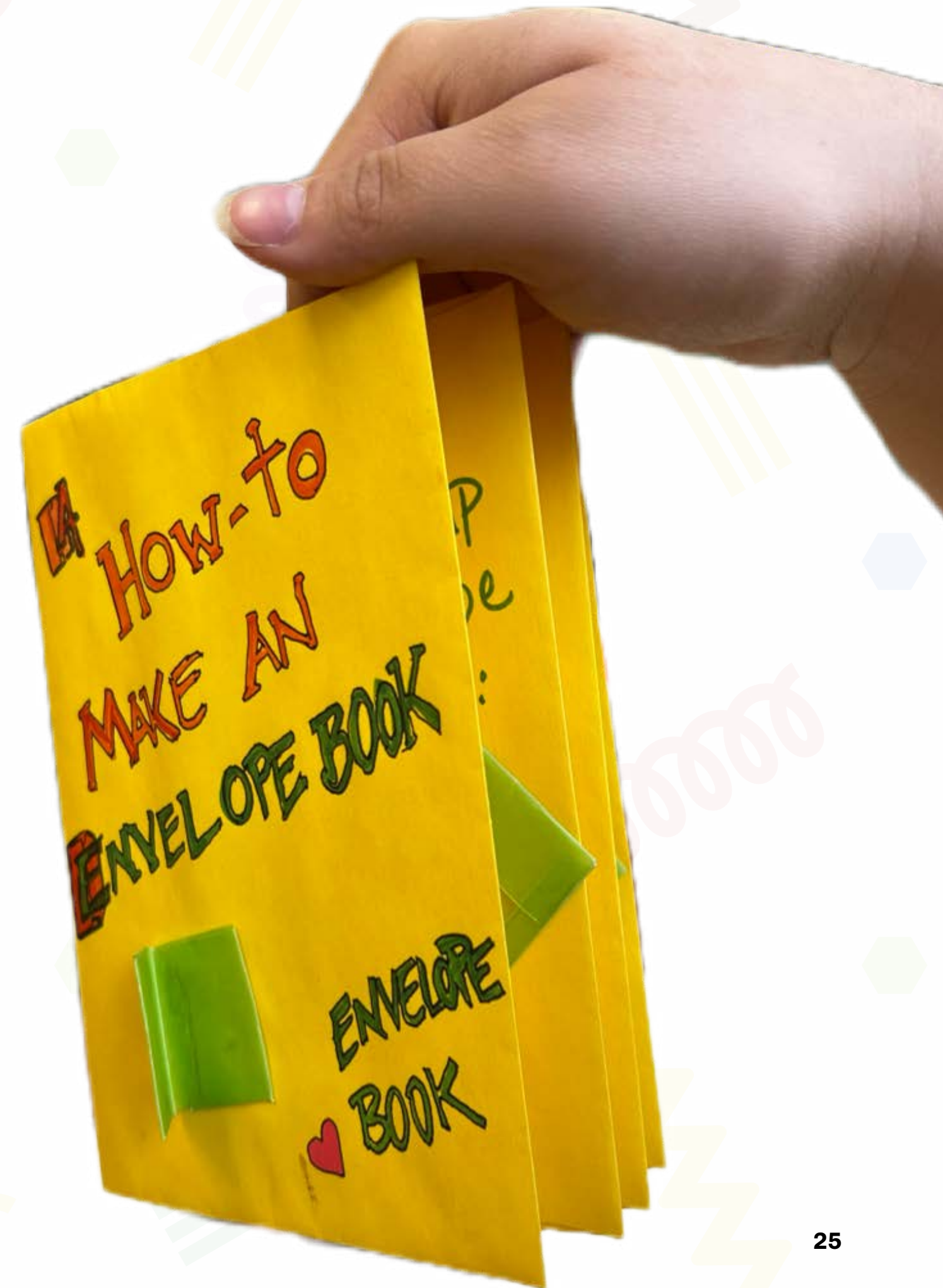


# Projects to Try Out: Envelope Book

## What to do with used envelopes and paper.

Have you noticed we don't use envelopes as much anymore? Envelopes were really handy in the past for sending letters and important papers. Now we have email and cell phones where we can send messages and pictures instantly.

But you know what's really cool? Even though we don't use envelopes for letters as much, we can still use them to make awesome art and even make our own books!



# Projects to Try Out: Envelope Book

## Goals:

- Learn to reuse objects that become obsolete due to the technology advancement
- Enhance creativity, expression, and engagement by creating a book

## Subjects:

- English Language Arts
- STEM
- Arts

**Time:** 30 min

**Ages:** 5-18 year olds

**Materials for the Arts**

## Materials:

- 4 same-size envelopes
- Glue
- Scissors
- Collage materials

## Vocabulary:

- Technology\*
- Obsolete\*
- Sustainability\*
- Bookmaking
- Expression
- Collage
- Shapes, colors, hues

*\*Find definitions for these terms at the end of this presentation.*

# Projects to Try Out: Envelope Book

## Beginner:

Take a field trip to the park or garden and collect leaves, placing them inside the pockets of your envelope book.

## Intermediate:

Introduce your class to bookmaking, providing assorted tools to bind the book spine and make a book cover.

## Advanced:

Take journaling to the next level, collecting everyday items and placing them inside the pockets of your book.

1

Put the flap of one envelope into the opening of the other one.



2

Glue the back flap shut.



3

Open your book in the middle and add envelopes on each side.



4

Use collage materials to tell a story, write a poem or tell us about yourself.



# Projects to Try Out: Plastic Portraits



# Further Resources

**Continue your climate journey**

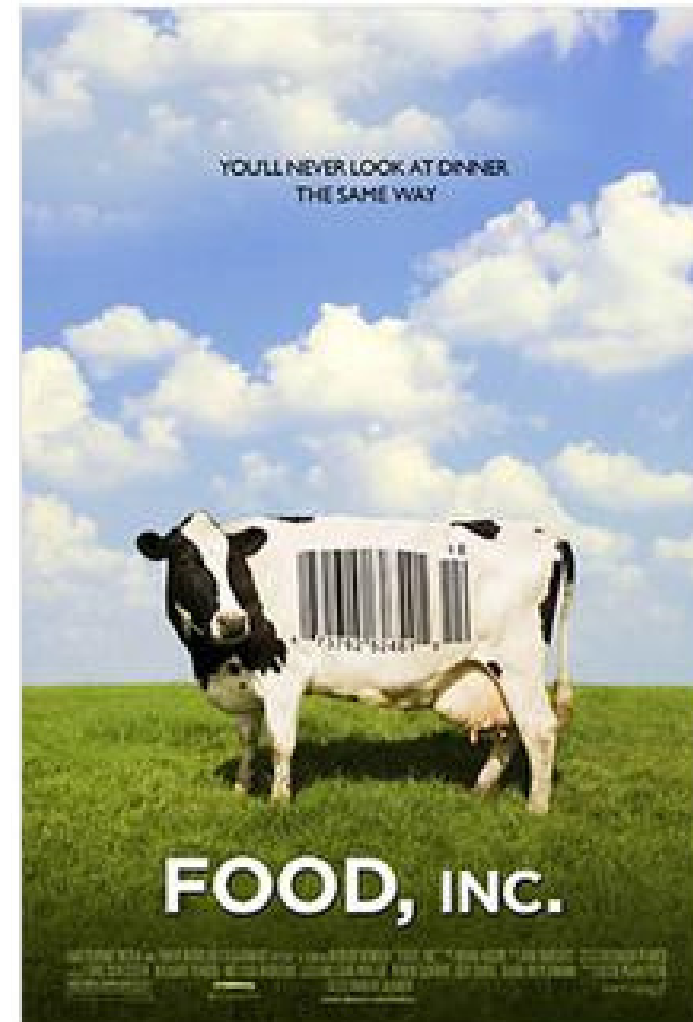


# Documentaries about Consumption



## The True Cost (2015)

“This is a story about clothing. It’s about the clothes we wear, the people who make them, and the impact the industry is having on our world.” <sup>1</sup>

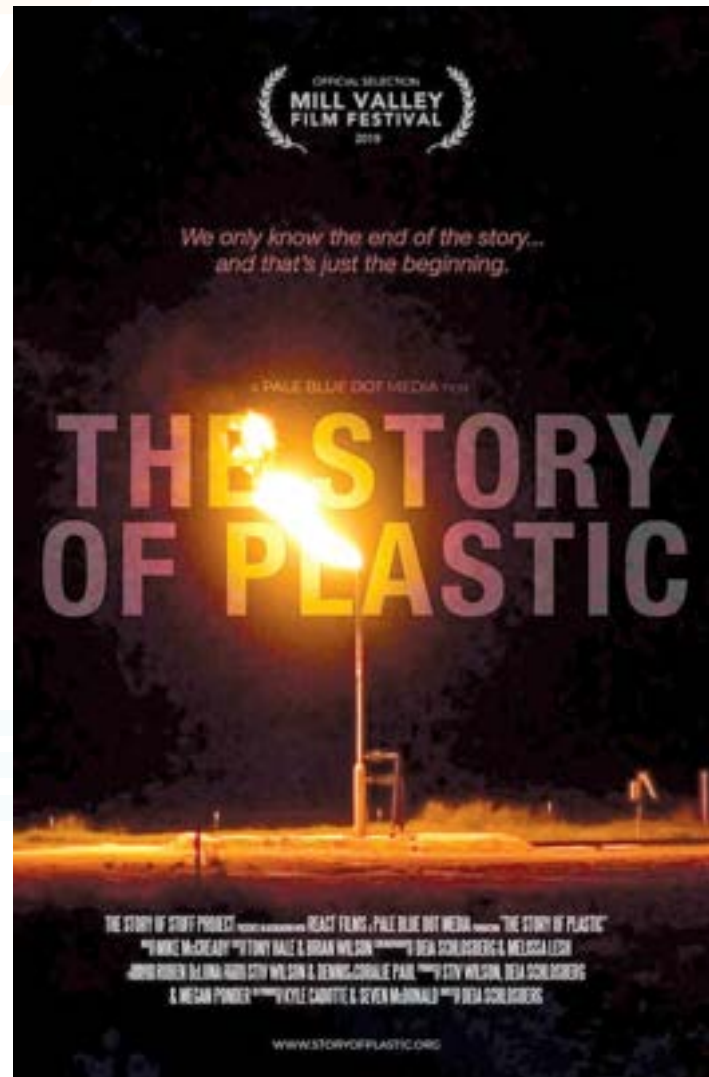


## Food, Inc. (2008)

“Lifts the veil on our nation's food industry, exposing the highly mechanized underbelly that's been hidden from the American consumer with the consent of our government's regulatory agencies, USDA and FDA.” <sup>2</sup>

1. “The True Cost.”
2. Pov, “Food, Inc. - POV.”

# Documentaries about Plastic



## The Story of Plastic (2019)

“The Story of Plastic is a searing exposé revealing the ugly truth behind plastic pollution and the false solution of plastic recycling.”<sup>1</sup>



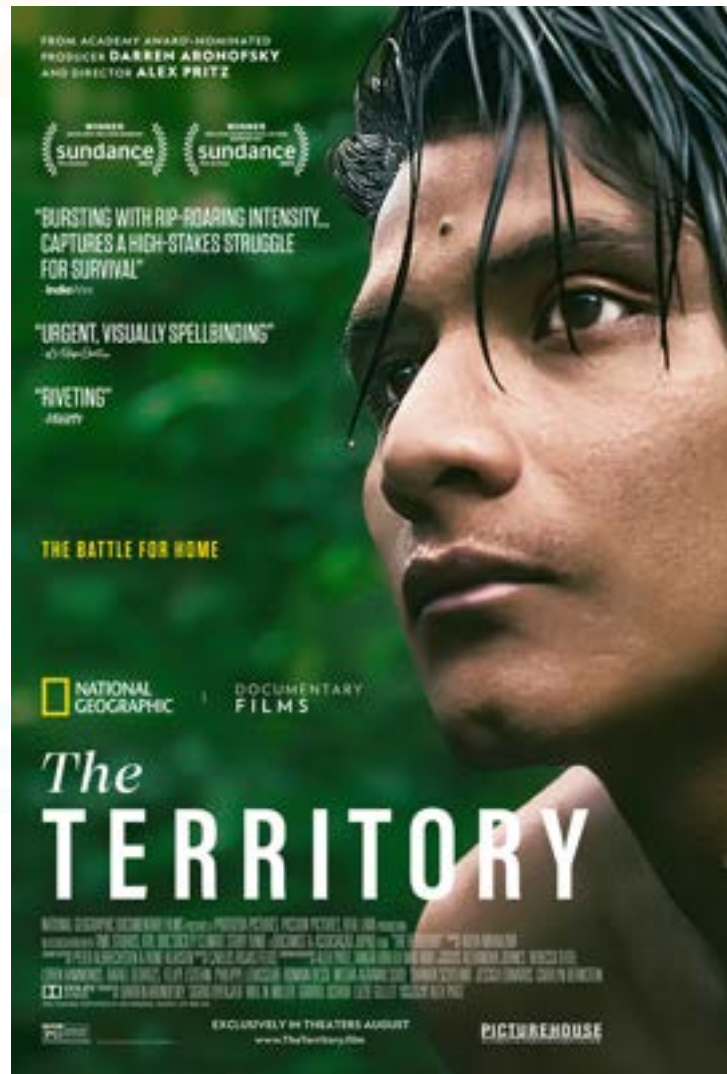
## Plastic Wars (2020)

“With the plastic industry expanding like never before and the crisis of ocean pollution growing, FRONTLINE and NPR investigate the fight over the future of plastics.”<sup>2</sup>

1. “The Story of Plastic (Documentary Film) - Story of Stuff,” January 21, 2022.

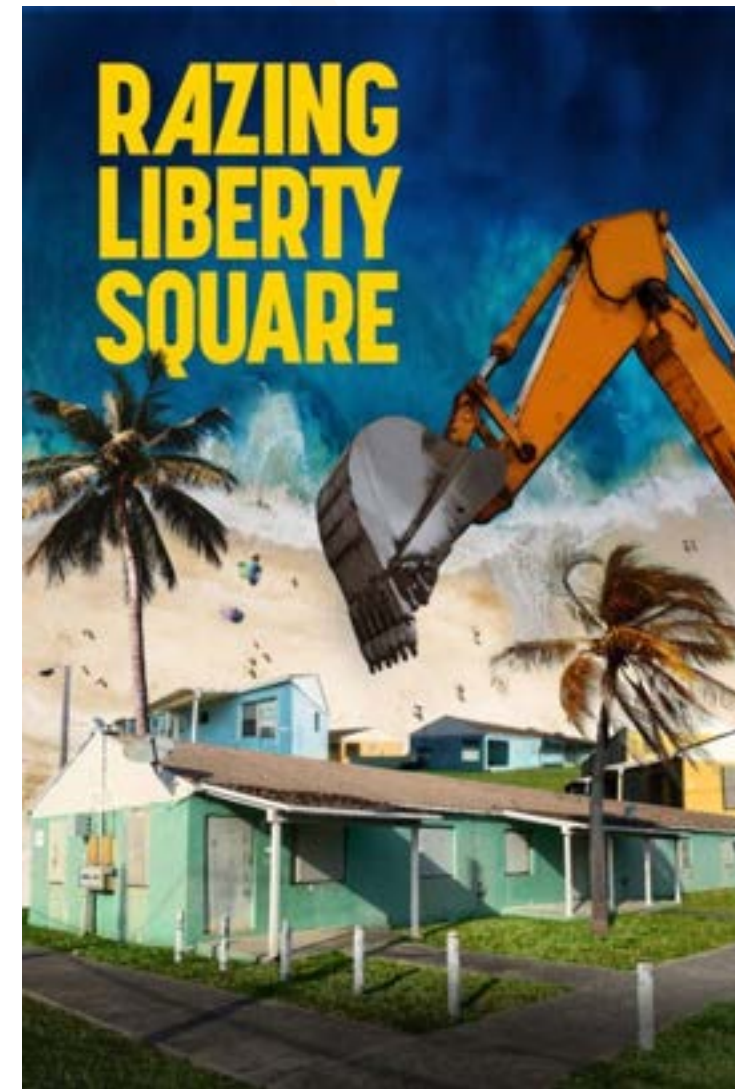
2. FRONTLINE, PBS, “Plastic Wars.”

# Documentaries about Climate Displacement



## The Territory (2022)

“The Territory provides an immersive on-the-ground look at the tireless fight of the Indigenous Uru-eu-wau-wau people against the encroaching deforestation brought by farmers and illegal settlers in the Brazilian Amazon.”<sup>1</sup>



## Razing Liberty Square (2023)

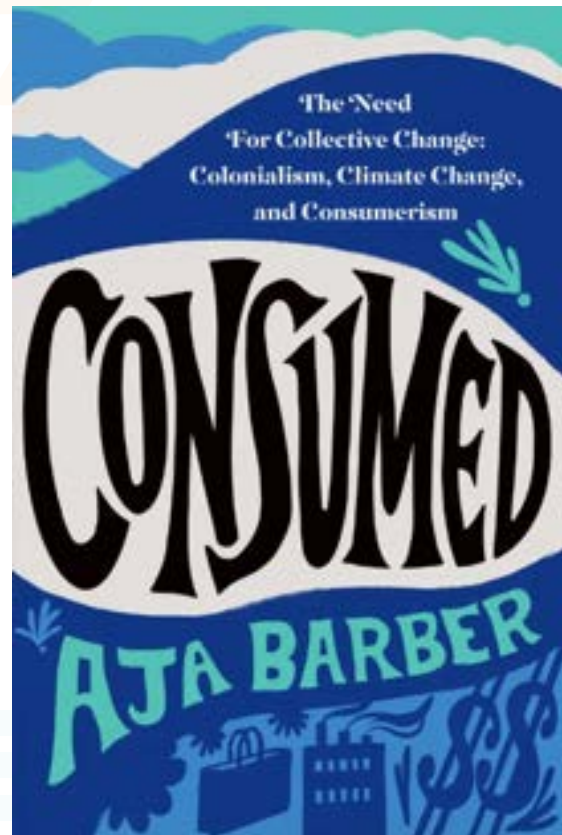
“The Liberty Square public housing community in Miami becomes ground zero for climate gentrification.”<sup>2</sup>

1. “The Territory.”

2. “Razing Liberty Square | Climate Gentrification Documentary | Independent Lens.”

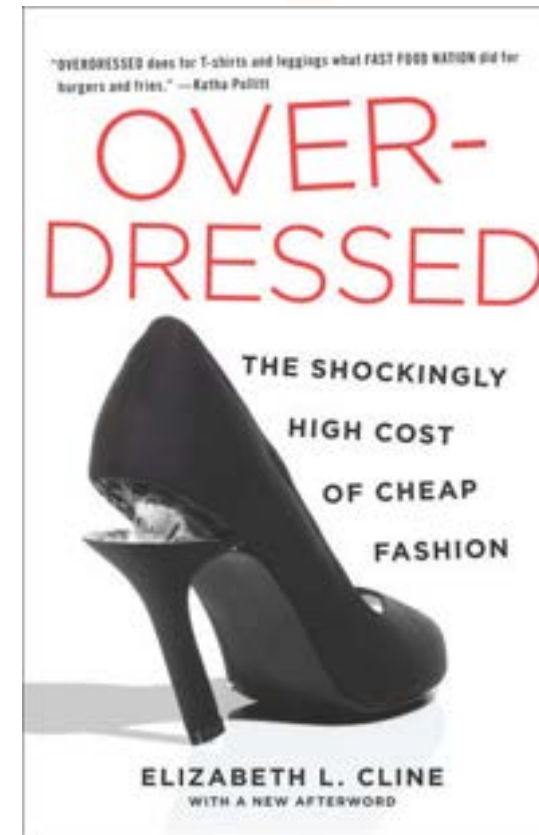


# Books about Climate Change & Fashion



***Consumed: The Need for Collective Change: Colonialism, Climate Change, and Consumerism***  
by Aja Barber

“A call to action for consumers everywhere, *Consumed* asks us to look at how and why we buy what we buy, how it's created, who it benefits, and how we can solve the problems created by a wasteful system.”<sup>1</sup>



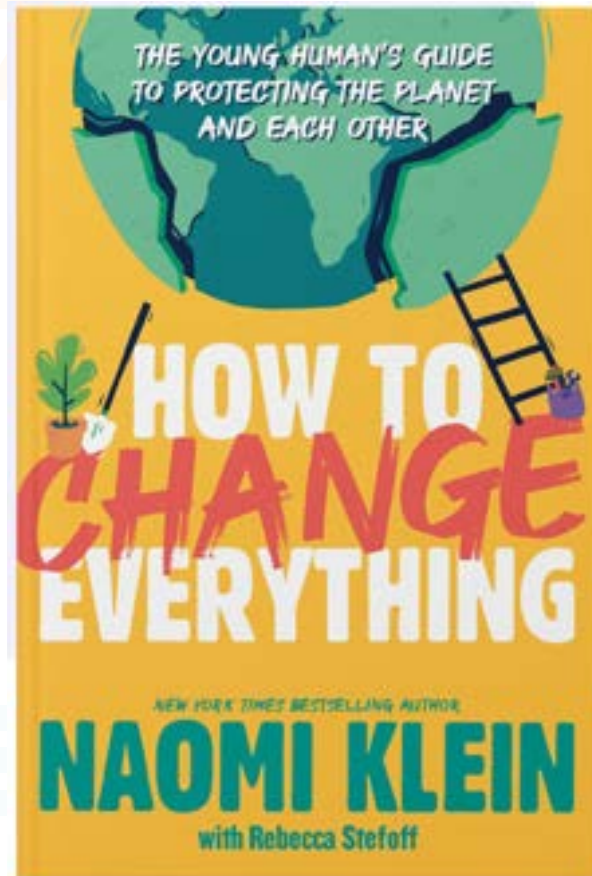
***Overdressed: The Shockingly High Cost of Cheap Fashion***  
by Elizabeth L. Cline

“*Overdressed* is a landmark investigation into the rise of fast, disposable fashion and its hidden toll on the environment, human rights, and consumer behavior — the first of its kind.”<sup>2</sup>

1. “Consumed.”

2. “OVERDRESSED — Elizabeth L. Cline.”

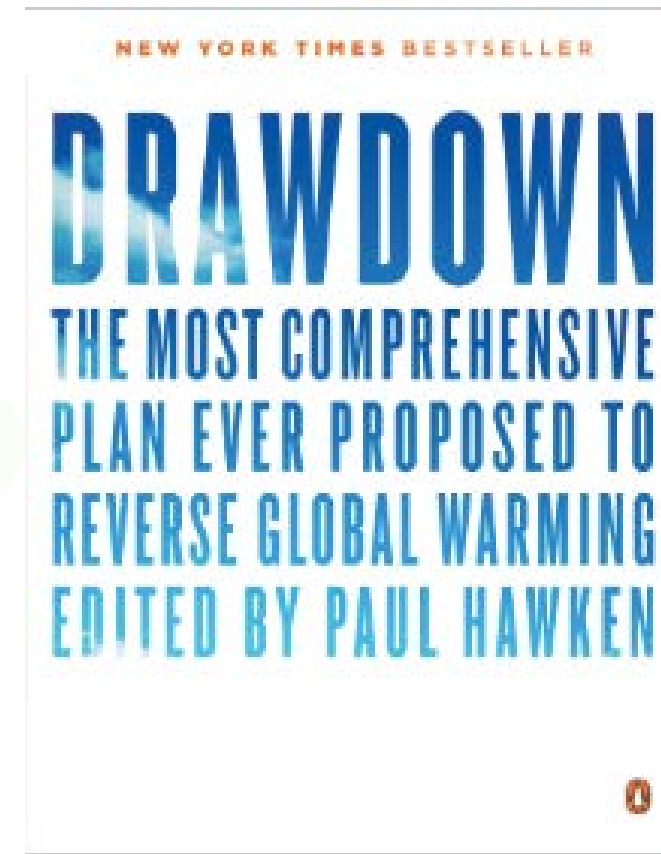
# Books about Climate Change Solutions



## ***How to Change Everything: The Young Human's Guide to Protecting the Planet and Each Other***

by Naomi Klein

“This information-packed book offers young readers a comprehensive look at the state of the climate today and how we got here — and how they can help shape what happens next.”<sup>1</sup>



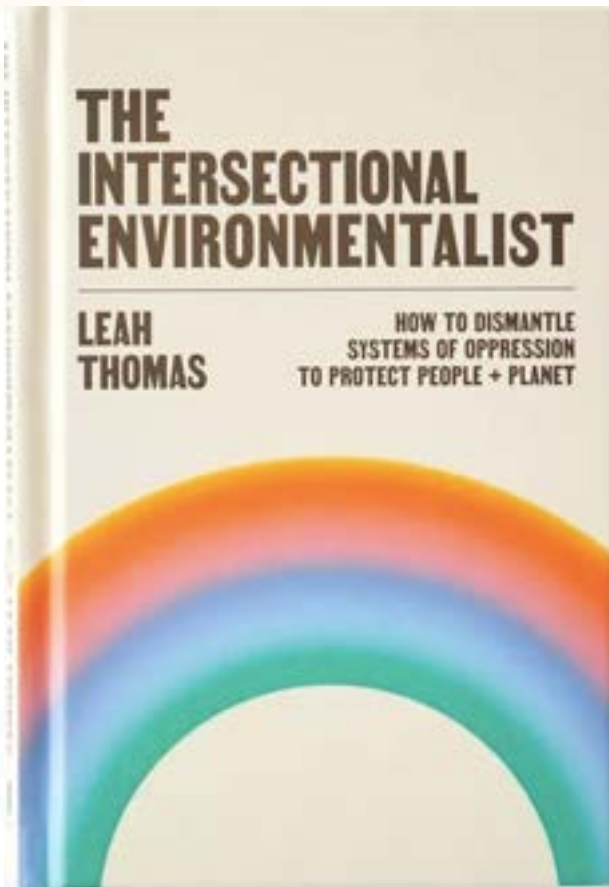
## ***Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming***

edited by Paul Hawken

“*Drawdown* has become a seminal text on climate solutions, drawing on humanity’s collective wisdom about the practices and technologies that can begin to reverse the buildup of atmospheric carbon by mid-century.”<sup>2</sup>

1. “Naomi Klein | How to Change Everything.”
2. “Drawdown, the Book | @ProjectDrawdown.”

# Books about Environmental Justice



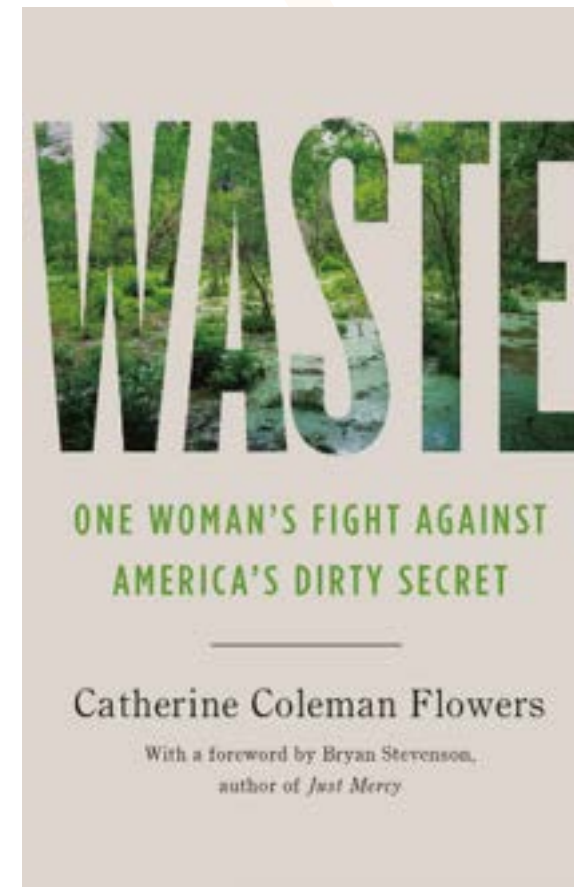
## ***The Intersectional Environmentalist: How to Dismantle Systems of Oppression to Protect People + Planet***

by Leah Thomas

“An introduction to the intersection between environmentalism, racism, and privilege, and an acknowledgment of the fundamental truth that we cannot save the planet without uplifting the voices of its people — especially those most often unheard.” <sup>1</sup>

1. “Book — Leah Thomas.”

2. “Writings — Catherine Coleman Flowers,” n.d.

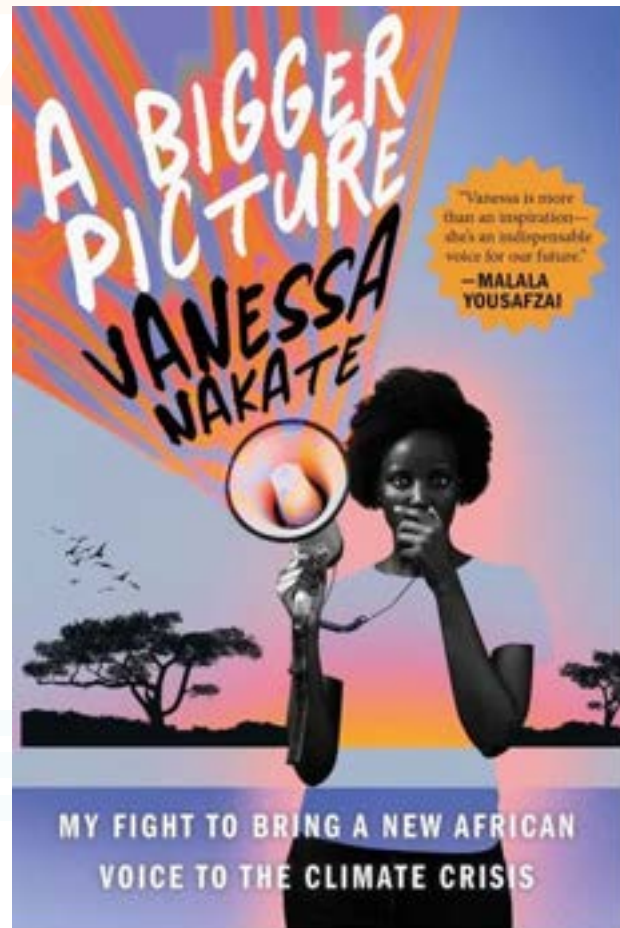


## ***Waste: One Woman's Fight Against America's Dirty Secret***

by Catherine Coleman Flowers

“It shows how sanitation is becoming too big a problem to ignore as climate change brings sewage to more backyards, and not only those of poor minorities.” <sup>2</sup>

# Books by Youth Climate Activists



## ***A Bigger Picture: My Fight to Bring a New African Voice to the Climate Crisis***

by Vanessa Nakate

“A leading voice in the global climate movement delivers a powerful manifesto and moving memoir about climate justice and how we can—and must—build a livable and inclusive future for all.”<sup>1</sup>



## ***No One Is Too Small to Make a Difference***

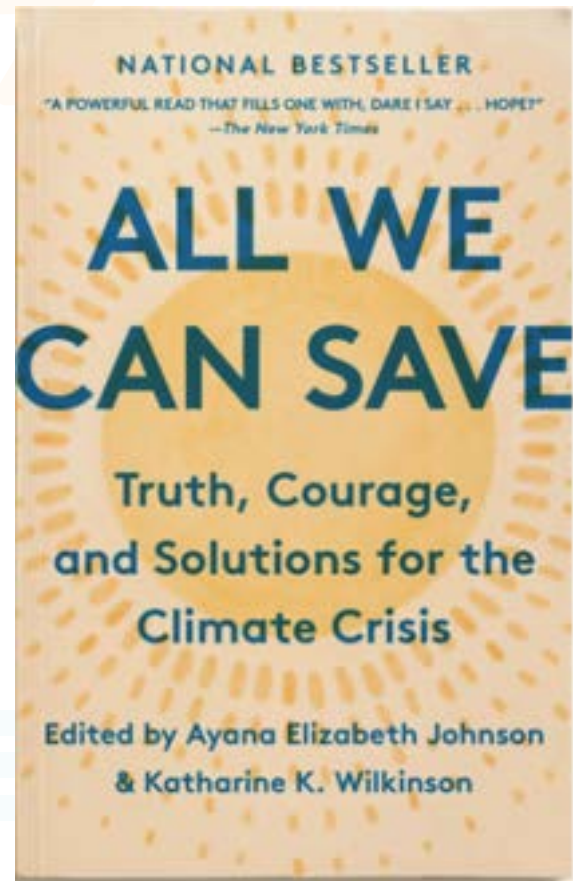
by Greta Thunberg

“The groundbreaking speeches of Greta Thunberg, the young climate activist who has become the voice of a generation, including her historic address to the United Nations.”<sup>2</sup>

1. HarperCollins, “A Bigger Picture.”

2. “No One Is Too Small to Make a Difference.”

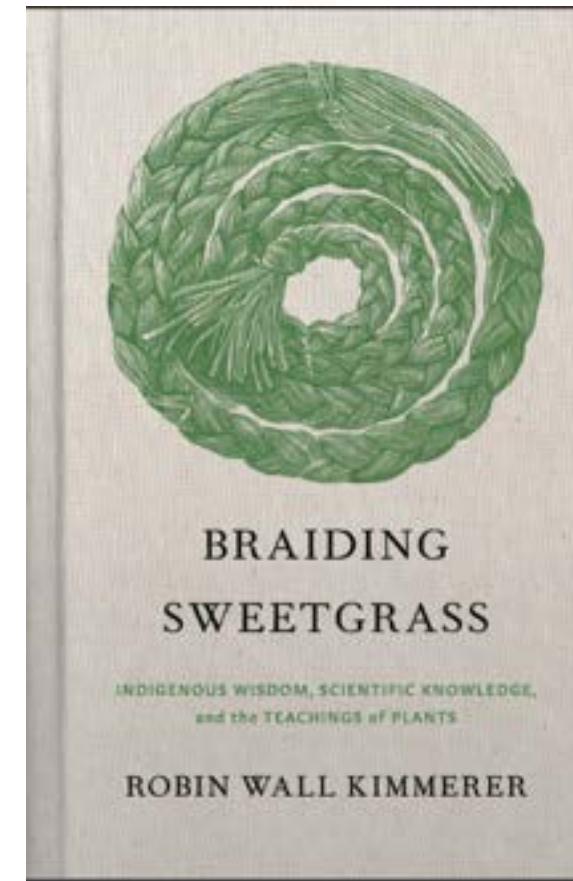
# Books featuring Indigenous Wisdom



## ***All We Can Save: Truth, Courage, and Solutions for the Climate Crisis***

edited by Dr. Ayana Elizabeth Johnson and Dr. Katharine Wilkinson

“[A]n anthology of writings by 60 women at the forefront of the climate movement who are harnessing truth, courage, and solutions to lead humanity forward.”<sup>1</sup>



## ***Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*** by Robin Wall Kimmerer

“Drawing on her life as an indigenous scientist, a mother, and a woman, Kimmerer shows how other living beings—asters and goldenrod, strawberries and squash, salamanders, algae, and sweetgrass—offer us gifts and lessons, even if we’ve forgotten how to hear their voices.”<sup>2</sup>

1. “All We Can Save: Truth, Courage, and Solutions for the Climate Crisis | a National Bestseller — the All We Can Save Project.”

2. “Books — Robin Wall Kimmerer.”

# Glossary

**Climate change:** “refers to long-term shifts in temperatures and weather patterns. Such shifts can be natural, due to changes in the sun’s activity or large volcanic eruptions. But since the 1800s, human activities have been the main driver of climate change, primarily due to the burning of fossil fuels like coal, oil and gas.

Burning fossil fuels generates greenhouse gas emissions that act like a blanket wrapped around the Earth, trapping the sun’s heat and raising temperatures.

The main greenhouse gases that are causing climate change include carbon dioxide and methane. These come from using gasoline for driving a car or coal for heating a building, for example. Clearing land and cutting down forests can also release carbon dioxide.

Agriculture, oil and gas operations are major sources of methane emissions. Energy, industry, transport, buildings, agriculture and land use are among the main sectors causing greenhouse gases.”<sup>1</sup>

1. United Nations, “What Is Climate Change? | United Nations.”

# Glossary

**Environmental Justice:** “means the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people:

- are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and
- have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices

The environmental justice movement was started by individuals, primarily people of color, who sought to address the inequity of environmental protection in their communities.”<sup>1</sup>

1. “Environmental Justice | US EPA.”

# Glossary:

**Incinerator (n.):** At incinerators, waste is burned at a high heat. Some incinerators capture energy (known as “waste-to-energy”), however this energy produces “more greenhouse gas emissions per unit of electricity produced than any other power source.”<sup>1</sup> In addition, harmful pollutants known as volatile organic compounds (VOCs) enter the air through the burning process, negatively impacting the health of individuals who breathe that air. Globally, living near an incinerator has been associated with increased rates of asthma,<sup>2</sup> miscarriages,<sup>3</sup> and certain types of cancer.<sup>4</sup>

1. Tangri, “Waste Incinerators Undermine Clean Energy Goals.”

2. Bae, Kang, and Lim, “Assessment of Relative Asthma Risk in Populations Living Near Incineration Facilities in Seoul, Korea.”

3. Candela et al., “Exposure to Emissions From Municipal Solid Waste Incinerators and Miscarriages: A Multisite Study of the MONITER Project.”

4. Capitão et al., “Waste Incineration and Cancer Mortality: A Longitudinal Controlled Population-Based Study.”



# Glossary:

**Landfill (n.):** At landfills, waste is buried in layers and compacted tightly to maximize space and the landfill's lifespan. This tight compaction limits the circulation of oxygen. In the absence of oxygen, food waste decomposes slowly and releases methane gas, a greenhouse gas much more powerful than carbon dioxide. Additionally, landfills produce leachate, a toxic liquid formed during waste decomposition, which can pollute soil and groundwater if not managed properly.

In the United States, there are federal regulations around landfills such as location (ensuring they're built "away from faults, wetlands, flood plains or other restricted areas"), composite liners requirements ("to protect groundwater and the underlying soil from leachate releases"), leachate collection and removal systems, groundwater monitoring requirements, and closure and post-closure care requirements.<sup>1</sup>

1. "Municipal Solid Waste Landfills | US EPA."

# Activity Vocabulary

**Identity (n.):** Who or what a person or thing is... A set of characteristics or a description that distinguishes a person or thing from others.<sup>1</sup>

**Downcycle (v.):** To reuse (waste material) to create a product of lower quality or value than the original. For example, plastic and paper can only be downcycled since the processes of recirculating these materials damage the materials themselves. A paper magazine might be downcycled into paper towels, which, after it is used, goes in the compost or trash.<sup>2</sup>

**Ecosystem (n.):** A biological system composed of all the organisms found in a particular physical environment, interacting with it and with each other.<sup>3</sup>

**Obsolete (adj.):** No longer used or practiced; outmoded, out of date.<sup>4</sup>

**Pollution (n.):** The presence in or introduction into the environment (esp. as a result of human activity) of harmful or poisonous substances, or excessive levels of light, noise, organic waste, etc.<sup>5</sup>

1. Oxford English Dictionary, s.v. "identity (n.), sense 2.b," December 2023, <https://doi.org/10.1093/OED/1910886075>.

2. Oxford English Dictionary, s.v. "downcycle (v.)," July 2023, <https://doi.org/10.1093/OED/5154921582>.

3. Oxford English Dictionary, s.v. "ecosystem (n.)," July 2023, <https://doi.org/10.1093/OED/4710651519>.

4. Oxford English Dictionary, s.v. "obsolete (adj.), sense 1," July 2023, <https://doi.org/10.1093/OED/6542788617>.

5. Oxford English Dictionary, s.v. "pollution (n.), sense 3.b," July 2023, <https://doi.org/10.1093/OED/8019574958>.

6. Oxford English Dictionary, s.v. "recycle (v.), sense I.1.a," September 2023, <https://doi.org/10.1093/OED/3963209626>.

# Glossary

**Recycle (v.):** To reuse (material) in an industrial process; to return (material) to a previous stage of a cyclic process. For example, metal and glass can be recycled an infinite number of times without losing their value. Glass jars can be recycled back into glass jars and soda cans can be recycled back into soda cans.<sup>1</sup>

**Sustainability (n.):** The property of being environmentally sustainable; the degree to which a process or enterprise is able to be maintained or continued while avoiding the long-term depletion of natural resources.<sup>2</sup>

**Upcycle (v.):** To reuse (waste material) to create a product of higher quality or value than the original, and to reduce the need for new raw materials in production; (more generally) to repurpose, renovate, or improve (an old or unwanted item) to make something more attractive, valuable, etc. For example, soda can tabs can be linked together and upcycled into jewelry, purses, and even clothing.<sup>3</sup>

**Technology (n.):** a technological process, method, or technique. Also: machinery, equipment, etc., developed from the practical application of scientific and technical knowledge.<sup>4</sup>

**Waste (n.):** unserviceable material remaining over from any process of manufacture; the useless by-products of any industrial process; material or manufactured articles so damaged as to be useless or unsaleable.<sup>5</sup>

1. Oxford English Dictionary, s.v. “recycle (v.), sense I.1.a,” September 2023, <https://doi.org/10.1093/OED/3963209626>.

2. Oxford English Dictionary, s.v. “sustainability (n.), sense 2.b,” July 2023, <https://doi.org/10.1093/OED/1042593202>.

3. Oxford English Dictionary, s.v. “technology (n.), sense 4.c,” July 2023, <https://doi.org/10.1093/OED/2747496568>.

4. Oxford English Dictionary, s.v. “upcycle (v.),” July 2023, <https://doi.org/10.1093/OED/1052659502>.

5. Oxford English Dictionary, s.v. “waste (n.), sense III.11.a,” December 2023, <https://doi.org/10.1093/OED/4073373326>.

# Websites to Learn More About Climate Change



**GLOBAL CLIMATE CHANGE**  
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[NASA Kids Guide to Climate Change](#)



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[UN Sustainable Development Goals](#)



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[Environmental Protection Agency](#)

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**Climate  
Connections**

[Yale Climate Connections](#)

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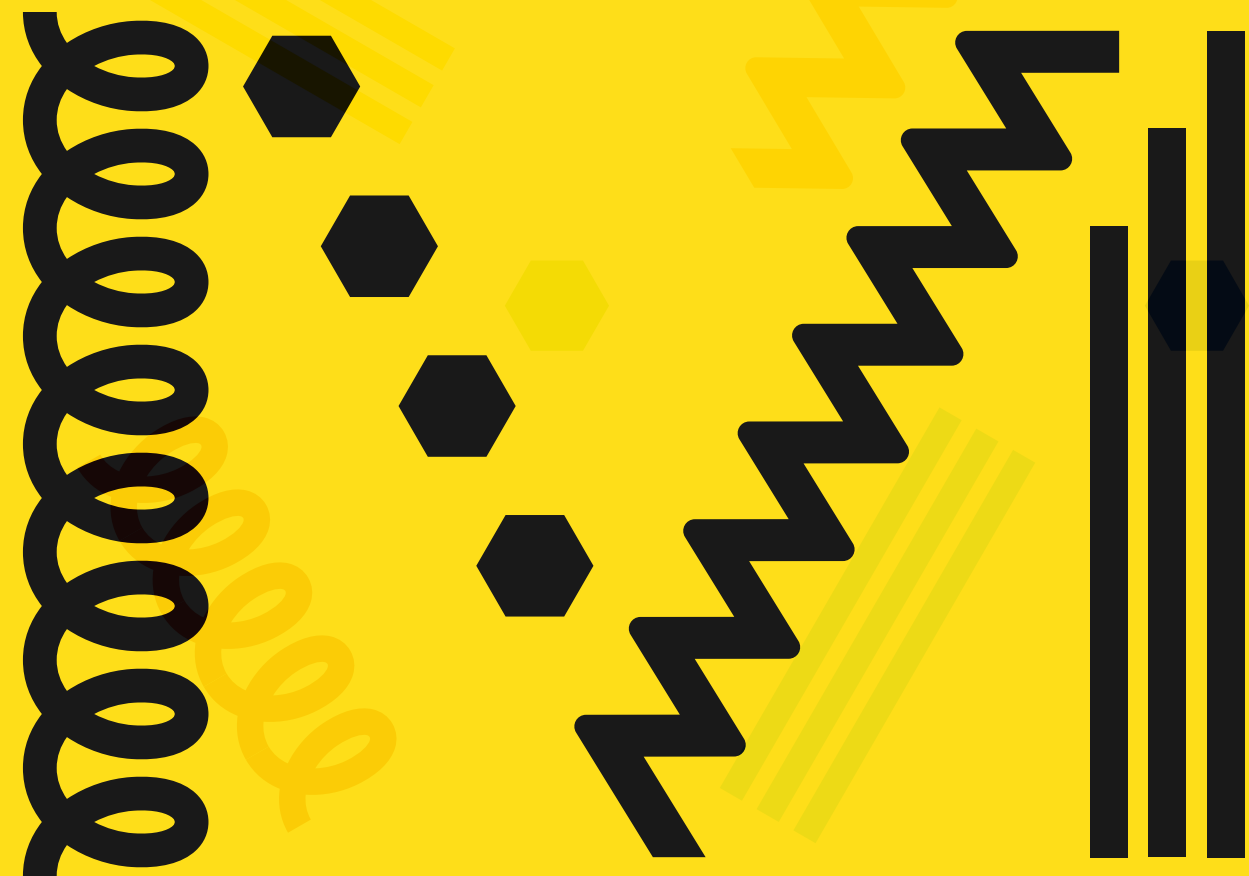
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