

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



GOAL 12

RESPONSIBLE CONSUMPTION AND PRODUCTION



CONNECTING STUDENTS TO THE SUSTAINABLE DEVELOPMENT GOALS



National Wildlife Federation



Alcoa Foundation





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**ACCELERATE
CLIMATE
ACTION
FOR ALL SDGs**

The Sustainable Development GOALS



**LEAVE
NO ONE
BEHIND**

What are the Sustainable Development Goals (SDGs)?

The Global Goals are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including poverty, inequality, climate change, environmental degradation, and peace and justice.¹

Why Teach the SDGs?

Teaching the goals will support the knowledge, skills, attitudes and values necessary to address sustainable development challenges. And educating for sustainable development empowers everyone to make informed decisions in favor of environmental integrity, economic viability and a just society for present and future generations.²



'We The People' for the Global Goals

¹ | <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

² | <https://en.unesco.org/themes/education/sdgs/material>

About the ACTIVITIES

Summary

The activities are designed to support unpack Goal 12 Responsible Consumption and Production to develop a deeper foundation in which students can engage in self-reflection, dialogue with their peers and community, and environmental justice-centered action.

Learning Outcomes

Students will~

- Define the Sustainable Development Goals (SDGs).
- View, analyze, and interpret content related to the SDGs and consumption and production.
- Conduct, analyze and interpret a waste audit.
- Review engineering design and develop a solutions-based action plan.
- Examine Goal 12: Responsible Consumption and Production.
- Generate prompt specific responses that incorporate equity, local and global conditions, climate change and wildlife impacts.

Time and Materials

Each activity is designed to be completed within a 50-60 minute time period and can be completed in a flexible learning environment, either at home or school. When possible take learning outdoors.

Taking learning outdoors supports students physical, social and emotional well-being and can support a lasting connection to nature.

- Internet access
- Notebook or digital document

Academic Vocabulary

- Sustainable Development Goals
- Education for Sustainable Development
- responsible consumption
- responsible production
- engineering design
- climate
- climate change

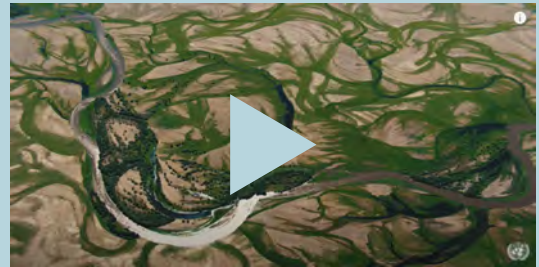
URGENT SOLUTIONS FOR URGENT TIMES

WHAT TO DO

Watch the video in full. Then go back and rewatch chapter by chapter. After each chapter, respond to prompts digitally or in your notebook using the guidance below.

Nations United | <https://youtu.be/xVWHuJ0maEk>

- 0:00 | Introduction
- 5:09 | Chapter 1. Climate Change and the Planet
- 11:15 | Chapter 2. Poverty and Inequality
- 19:25 | Chapter 3. Justice and Human Rights
- 23:30 | Chapter 4 Gender Equality



Nations United:
Urgent Solutions for Urgent Times
Presented by Thandie Newton

1. Chapter Speakers

Identify the main chapter speakers and their titles (usually between 2 and 3 people).

2. Chapter Summary

Using your own words and remaining objective, provide an overview of the chapter, including any arguments and their key points. Stick to the main idea(s) and don't get bogged down in a lot of details.

3. Chapter Purpose

- *Persuade*—to convince a viewer to believe an idea or take a course of action
- *Inform*—to teach a viewer about a topic
- *Explain or Entertain*—to recount events or share a story
- *Describe*—to tell the viewer what something looks, sounds, or feels like

4. Chapter Tone

Tone is related to the speakers' attitude toward a subject. Tone is described with adjectives and it is detected through the speakers' word choice and style. Tone must match purpose in order for an argument to be successful.

5. Chapter Questions

What questions do you have? What is one thing new you learned? What is something presented you already knew? How can you ensure the source(s) are credible and based on fact?

Reading Response

RESPONSIBLE CONSUMPTION AND PRODUCTION

WHAT TO DO

1. Use your search engine and input the following criteria

- Switch from viewing ALL to viewing NEWS.
- Narrow your search to the LAST MONTH
- In the search field type, TRASH and WASTE. If you want to look specifically at a waste or production stream add words like your CITY NAME, FASHION, FOOD, ENERGY, PARKS, etc.
- Review the first 5-10 titles and choose one to read and respond to.

2. Respond to your article digitally or in your notebook using the guidance below.

PARAGRAPH 1 - FACTS

- What is the title and date of the article?
- Who is the author?
- What source or publication did the article come from?
- Summarize the article. Using your own words and remaining objective, provide an overview of the article, including any arguments and their key points. Stick to the main idea(s) and don't get bogged down in a lot of details.

PARAGRAPH 2 - OPINIONS

- Why did you choose this article?
- Do you agree or disagree with the author(s)?
- Did it support or change your opinion of the topic; if not, why, or if so, how?
- Did the writer demonstrate that he/she did sufficient research?
- What would you add to enhance the article?



Moving Beyond Recycling

ZERO WASTE



The Waste Hierarchy



WHAT TO DO

To understand and move toward a personal and school commitment to zero waste a transformation to one's current mental models around produce systems and consumer habits must occur first. Adopt a growth mindset, in order to meet and move past challenges.

1. Before conducting a waste audit, review the *Zero Waste Hierarchy* from UTS: Institute for Sustainable Futures.
2. Describe the graphic--what are its parts telling you and how will it help you as you brainstorm waste, production, and design solutions? What is missing from this system? Do a little research if you are unsure of any part of the hierarchy.

CONDUCT, ANALYZE, AND INTERPRET A ZERO WASTE AUDIT

WHAT TO DO

Conducting a zero waste audit is very similar to conducting a waste audit. The difference lies in the analysis, conclusions drawn, and subsequent action taken.

1. Review the audit on the next page before beginning. Your team will use this audit to record your waste data.
2. Schedule time to conduct the audit. The audit will take up to an hour depending upon the size/amount of waste your team will be working with--set up, sort, record, and cleanup.
3. Gather the materials--tarp(s), tape to section tarp, gloves, materials to clean up and disinfect accidental messes.
4. Conduct the audit sorting by item or material type. Then determine where the items should go on the zero waste hierarchy in the future. Use the back of this page or scratch paper, if the team runs out of space below.
5. Schedule time to analyze the results and note questions you have. This work will help inform your team's action plan. If most all waste is going into the trash then what are the alternatives according to the hierarchy or what solutions will you propose?

CHART INFORMATION

ITEM DESCRIPTION | toilet paper roles, snack food wrappers, paper napkins/towels, etc.

MATERIAL TYPE | cardboard, plastic, paper, etc.

PRE-ACTION QUANTITY | add whole numbers

PRE-ACTION DISPOSAL METHOD | avoid/refuse, reuse, recycle, recover, dispose

ITEM DESCRIPTION	MATERIAL TYPE	PRE-ACTION QUANTITY	PRE-ACTION DISPOSAL METHOD
straws	plastic	100	trash

PAGE 1 OF 2 | DEVELOP AN
ACTION PLAN

What is the problem, concern, or needed improvement, and why is it needed? Consider how the problem you identified is affecting you, your family, and or the community.

Example. Our team wants to be less wasteful and contribute less waste to the landfill. We also want to be mindful of what we buy. If we change our buying habits, then less waste will make it into the landfill.

Your response.

What three actions will our team take? Consider how to persuade your peers, staff, your family, and your friends to change their behavior and try new things.

Example.

1. We will learn what it means to be responsible/sustainable consumers.
2. We will audit waste at school and come up with ways we can be less wasteful.
3. We will talk with our community about how we can be better consumers and less wasteful.
4. We will make reminder notes and place them around the school to help us stay on track.

Your response.

PAGE 2 OF 2 | DEVELOP AN
ACTION PLAN

How will our team check our progress to see how we are doing?

Example.

1. We will do another audit to see if our school is making improvements.
2. We will create a graph, showing our waste results from the pre-action audit and the post-action audit.

Your response.

What will it look like, or what will happen if we solve the problem or make improvements?

Example.

Our school will commit to buying and wasting less by practicing what we have learned and help each other keep up with our promise to the planet.

Your response.

What materials do we need to solve the problem or make improvements?

Example.

- gloves to sort through the trash and space to sort trash
- paper and colors to make a bar graph
- craft materials or a computer and printer to create reminders
- regular meetings to discuss progress, make plan changes, and plan communications to share our progress with the community

Your response.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



RESPONSIBLE CONSUMPTION & PRODUCTION: WHY IT MATTERS

What is the goal here?

To ensure sustainable consumption and production patterns.

Why?

Economic and social progress over the last century has been accompanied by

environmental degradation that is endangering the very systems on which our future development and very survival depend.

COVID-19 offers an opportunity to develop recovery plans that will reverse current trends and shift our consumption and

Electronic waste grew by 38% but less than 20% is recycled

production patterns to a more sustainable course. A successful transition will mean improvements in resource efficiency, consideration of the entire life cycle of economic activities, and active engagement in multilateral environmental agreements.

What needs to change?

There are many aspects of consumption that with simple changes can have a big impact on society as a whole. For example, the global material footprint – an indicator of the pressure put on the environment to support economic growth and to satisfy the material needs of people – grew by 17.4 per cent to 85.9 billion metric tons in 2017 as compared to 2010.

Reducing food loss and waste can contribute to environmental sustainability by lowering production costs and increasing the efficiency of food systems. Currently, we lose 13.8 per cent after harvesting and during transport, storage and processing alone, amounting to a cost of over \$400 billion a year.

We are also polluting water faster than nature

can recycle and purify water in rivers and lakes.

How can I help as a business?

It's in businesses' interest to find new solutions that enable sustainable consumption and production patterns. A better understanding of environmental and social impacts of products and services is needed, both of product life cycles and how these are affected by use within lifestyles.

Identifying “hot spots” within the value chain where interventions have the greatest potential to improve the environmental and social impact of the system as a whole is a crucial first step.

Innovation and design solutions can both enable and inspire individuals to lead more sustainable lifestyles, reducing impacts and improving well-being.

How can I help as a consumer?

There are two main ways to help: **1.** Reducing your waste and **2.** Being

thoughtful about what you buy and choosing a sustainable option whenever possible. Ensure you don't throw away food, and reduce your consumption of plastic—one of the main pollutants of the ocean. Carrying a reusable bag, refusing to use plastic straws, and recycling plastic bottles are good ways to do your part every day.

Making informed purchases also helps. For example, the textile industry today is the second largest polluter of clean water after agriculture, and many fashion companies exploit textile workers in the developing world. If you can buy from sustainable and local sources you can make a difference as well as exercising pressure on businesses to adopt sustainable practices.

To take action, visit: <http://www.un.org/en/actnow>

To find out more about Goal #12 and other Sustainable Development Goals, visit:

<http://www.un.org/sustainabledevelopment>



UNPACKING GOAL 12

RESPONSIBLE CONSUMPTION AND PRODUCTION

Use the link to respond to the questions below.

<https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

In the opening paragraph, how is responsible consumption and waste defined?

The page states sustainable consumption and production can contribute substantially to poverty alleviation. How might this be so?

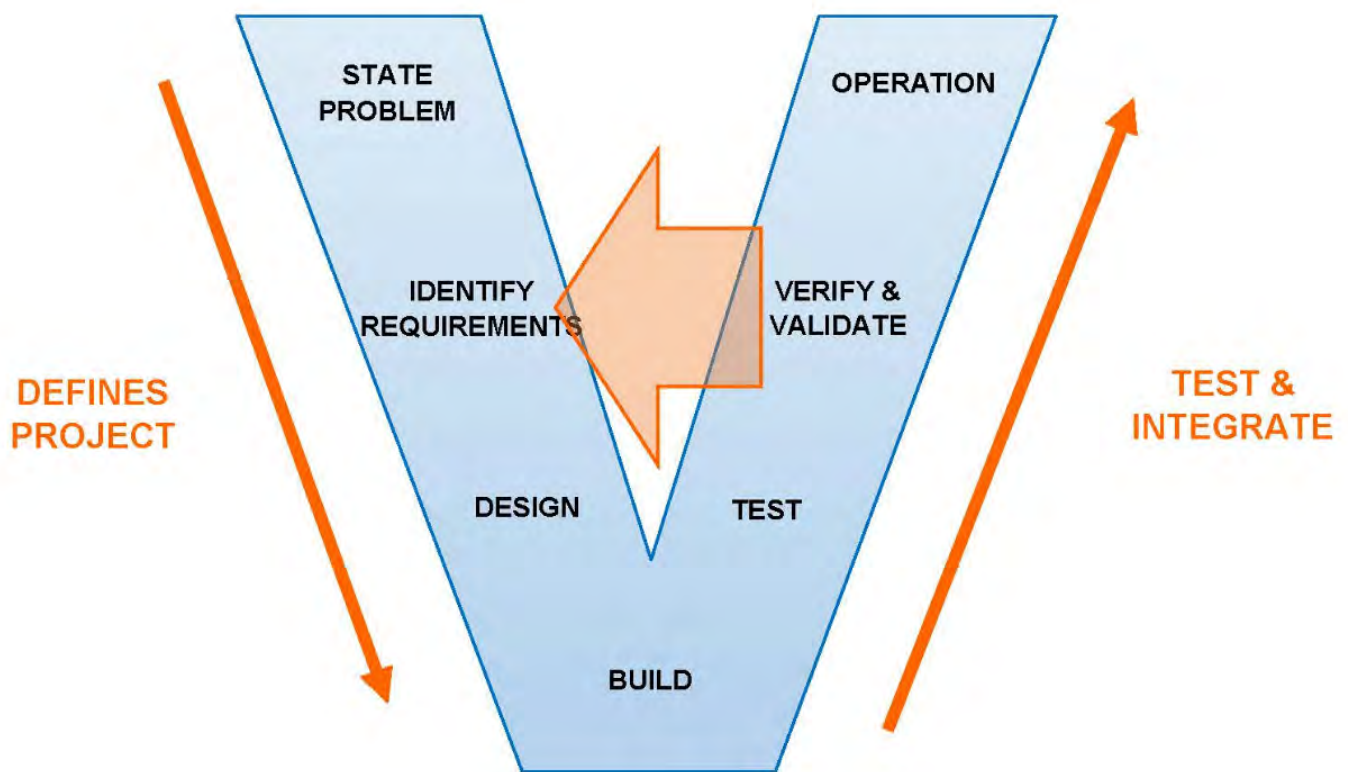
What are the challenges and opportunities presented by the pandemic as it relates to sustainable consumption and production?

UNPACKING GOAL 12

RESPONSIBLE CONSUMPTION AND PRODUCTION

Design a Solution. Using the V Model of Systems Engineering, work with your team to brainstorm and outline a solution that addresses one of the Goal 12 targets and intentionally centers equity. The solution will include climate impacts. Use this page to brainstorm ideas and then digitally create the outline to present to other teams. Goal 12 targets:

<https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>



V Model of Systems Engineering

STATE THE PROBLEM

What is the challenge/problem? | Why does it matter? | Does it seek to solve an injustice? Are the right voices heard and have seats at the design table? | How and where do we gather information | What is our goal? | How will the team ensure the solution is equitable?

IDENTIFY REQUIREMENTS

What are some solutions? Are the solutions inclusive, equitable? | Which solution will most likely lead to improved conditions or a fix for the problem?

DESIGN

What will the final product look like - products can be physical objects, technology, etc.? You're only limited by your imagination. | What materials or ideas are needed to create the product? | What are the material's environmental impact?

BUILD, TEST, VERIFY AND VALIDATE

Are materials gathered prior to beginning? | Does the product improve upon or solve the problem? | How can our team use feedback to improve our product?

OPERATIONALIZE AND SHARE

How will the team communicate our product or idea? | Is our communication inclusive and equitable? | How can the audience engage with our solution? | Did we share the story behind our team's idea/product?

National Wildlife Federation

Uniting all Americans to ensure wildlife thrive in a rapidly changing world.

[contact: eco-schoolsusa@nwf.org](mailto:eco-schoolsusa@nwf.org)



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