

SUSTAINABILITY WORKBOOK

Sustainability: Ability of human civilization to coexist with the biosphere in a steady state

Gardening



The 3 R's



Preserving



By: Mia Chonko



<https://foreverychildaneducation.org/>

WHY ARE YOU LEARNING THIS?

- 1. Students can become more environmentally responsible citizens**
- 2. Students learn how to use resources wisely and efficiently**
- 3. Students who learn about it gain insights into worldwide challenges**
- 4. They become better equipped to engage in global conversations and take informed actions**
- 5. Students can learn about the economic benefits from energy efficiency and the growth of green industries**
- 6. Sustainability education explores how environmental issues can impact different communities**
- 7. It encourages students to think critically and develop solutions to problems**
- 8. Better positioned for future job opportunities**
- 9. Students can lead healthier, more fulfilling lives**
- 10. Learning about sustainability fosters a sense of environmental stewardship and a desire to protect the natural world for future generations**

WHAT IS SUSTAINABILITY?



Sustainability refers to the ability to maintain/support a process continuously over time and is a social goal for people to co-exist on Earth for a long time.

Environmental Sustainability

Environmental sustainability is the responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.

Because so many decisions that impact the environment are not felt immediately, a key element of environmental sustainability is its forward-looking nature.

Why is it Important?

To preserve resources like clean air, water and wildlife for future generations.

Questions

1. What does sustainability mean to you? Why is it important in your opinion?

2. What is environmental sustainability and what are some ways you practice it already?

3. Why is environmental sustainability important?



SO, WHAT CAN YOU DO?

There are many things you can do such as:

- Installing solar panels
- Using an electric car
- Riding a bike
- Or use other practices that minimize your economic footprint. Still, these can be costly, often more so than non-sustainable solutions. While expense doesn't rule out those practices, there are other solutions you can pursue as well.

The UN has goals for sustainable development that address global challenges like...

- Avoid wasting water
- Acting now to stop global warming
- Avoiding the use of plastic bags to keep the oceans clean
- Planting trees to help protect the environment
- Recycling items such as paper, plastic, glass and aluminum
- Forming sustainable cities and communities

You can set similar goals and contribute to your community in some way to help with sustainability as well!

ACTIVITY

5 min: Think about some goals you can set to help make your household/school/community more sustainable

10 min: Discuss with your friends/table partners about your goals and set some goals with your teacher and class on how you, the students, can contribute to your school community and help with sustainability!

SO, WHAT CAN YOU DO?

- Organize events and use social media to talk about environmental issues
- Use reusable items and recycle whenever possible
- Turn off lights and electronics when not in use
- Avoid single-use items, participate in waste clean-up events, and choose sustainable alternatives
- Walk, bike, carpool, or use public transportation
- Start or support community gardens for local, sustainable food sources
- Teach others about the benefits of growing their own food and reducing reliance on big farms
- Work with the school to implement eco-friendly practices, recycling, and sustainable building
- Join or start clubs to discuss and act on sustainability initiatives
- Choose and promote environmentally friendly products
- Work with local groups and businesses to amplify sustainability efforts
- Engage in advocacy for environmental policies at different levels

ACTIVITY

List 5 things you can do to help with making the world more environmentally sustainable:






ACTIVITY

**Do you have a garden?
If so, what do you have
growing in your
garden? If not, why
not?**



GARDENING

Gardening is the cultivation of plants for various purposes, including aesthetics, food production, and environmental sustainability, involving activities such as planting, watering, and caring for the plants.



Gardening is helpful for environmental sustainability as it promotes biodiversity, reduces carbon footprint by encouraging local and organic produce, mitigates soil erosion, improves air quality, and fosters a connection between individuals and nature, contributing to a more ecologically balanced and resilient environment.

Practice Questions

1. What is gardening?

2. Why is gardening helpful and important?

A decorative illustration of pink roses and green leaves is positioned at the top of the page, behind the title text.

GARDENING BASICS

- 1. Choose the right location**
- 2. Choose plants that are suitable for your climate and the specific conditions of your garden.**
- 3. Loosen the soil and add compost to improve fertility and structure.**
- 4. Follow planting instructions for your plants.**
- 5. Water plants regularly and adjust based on the plant's needs.**
- 6. Mulch around plants to retain moisture, suppress weeds, and regulate soil temperature.**
- 7. Regularly remove weeds.**
- 8. Use appropriate fertilizers**
- 9. Trim dead or overgrown branches to encourage healthy growth.**
- 10. Keep an eye out for pests and take appropriate measures.**
- 11. Provide support for plants that may need it.**
- 12. Harvest fruits, vegetables, or flowers when they are ripe to encourage continuous growth.**
- 13. Keep your gardening tools clean and in good condition.**



PLANTING TREES

Benefits

1. Trees help clean the air we breathe by taking in dirty stuff from the air and giving us fresh, clean oxygen.
2. They provide shade and make hot places cooler.
3. Trees are houses for birds, squirrels, and other animals.
4. Trees soak up rainwater, which helps prevent big floods. They also make the ground stronger, so it doesn't wash away.
5. Some trees give us delicious fruits, like apples, cherries, and oranges. We can eat them and share them with others.
6. Trees make parks and forests fun to visit.
7. When we plant trees, we help fight climate change because trees take in a gas called carbon dioxide.



THE 3 R'S

Reduce

This means using less stuff.

When we reduce, we buy and use only what we really need. It's like cutting back on waste from the start.

Reuse

Means finding new ways to use things instead of throwing them away after one use.

By using items more than once, we reduce the amount of trash we make.

Recycle

This means collecting and turning used items, like paper, plastic, and glass, into new things.

Helps keep our environment cleaner by reusing materials and reducing the need to make things from scratch.

ACTIVITY

Reduce

This means using _____ stuff.

When we _____, we buy and use only what we really need. It's like cutting back on _____ from the start.

Reuse

Means finding _____ ways to use things instead of _____ them away after one use.

By using items more than _____, we reduce the amount of _____ we make.

Recycle

This means _____ and turning used items, like paper, plastic, and glass, into _____.

Helps keep our environment cleaner by _____ materials and reducing the need to make things from scratch.

PRESERVING

Preserve: Maintain (something) in its original or existing state

Preservation and environmental sustainability are interconnected concepts

Preservation and sustainability say everyone needs to take care of the Earth. They remind us that nature is all connected, and we have to think about the big picture. Taking care of nature and making smart choices makes life better now and for the future, creating a healthier planet.

Earth Day

What is Earth Day? It is a national holiday celebrated on April 22 (annually = every year) to demonstrate support for environmental protection. First held on April 22, 1970, it now includes a wide range of events coordinated globally by [EARTHDAY.ORG](https://www.earthday.org) including 1 billion people in more than 193 countries.



ACTIVITY

How are preservation and enviornmental sustainability connected? Answer in the space below:

HOW CAN YOU HELP?

- Follow the 3 R's
- Turn off electronic devices when not in use
- Advocate for energy-efficient practices in schools
- Use water responsibly
- Plant trees
- Raise awareness
- Join or organize community clean-up events
- Keep your school environment clean by picking up litter and encouraging others to do the same
- Encourage the use of recycled materials
- Walk, bike, or carpool to school
- Encourage the use of public transportation
- Choose products with minimal packaging and made from sustainable materials
- Support environmentally responsible companies/brands
- Advocate for environmentally friendly policies



ACTIVITY

**How can you help preserve
the Earth? Discuss with your
class or a friend.**



CAREERS/JOB OPPORTUNITIES

These jobs are becoming more and more needed, so, if you like bringing people together for a brighter future, it could be just right for you. You can learn about green business and solving environmental challenges, and it can open doors in various places like nonprofits and companies.

- **Environmental scientist:** Typically requiring a bachelor's degree, environmental scientists use their knowledge to protect the environment and human health, according to the U.S. Bureau of Labor Statistics (BLS). Environmental scientists and specialists earned median pay of \$73,230 in 2020, and those jobs are expected to grow by 8% through 2030.
- **Geoscientist:** Geoscientists need a bachelor's degree. Although, for some positions employers may prefer a master's. Geoscientists earned median pay of \$93,580 in 2020, and those jobs are expected to grow by 7% through 2030.
- **Engineer:** Environmental engineers combine engineering, biology and chemistry to develop environmental solutions, and most will need a bachelor's. Environmental engineers earned median pay of \$92,120 in 2020, and those jobs are expected to grow by 4% through 2030.