

Reducing our Carbon Footprint

This lesson asks students to think about how they can be more responsible for the kind of carbon footprint they are leaving behind. Part of our responsibility is to also take care of the planet, and we can do that by being mindful of how much we are contributing to landfills and how much we are conserving and reusing.

Kindness Sub-Concept(s)

Self-Discipline

Lesson Timeframe

30-35 minutes

Required Materials

- ☐ Carbon Footprint Challenge worksheet
- ☐ Computer access/smart board to show a short YouTube video (optional) and/or to have students calculate their carbon footprint (optional)

Standards Map

This lesson aligns with CASEL Competencies, National Health Education Standards, and Common Core State Standards. Please refer to the [Standards Map](#) for more information.



**DESIGNATED BY CASEL
AS A RECOMMENDED PROGRAM
FOR SOCIAL AND EMOTIONAL LEARNING.**
See last page for details.

Lesson Objective

Students will:

- Understand the definition of “carbon footprint.”
- Identify ways they can shrink their carbon footprint by engaging in a challenge activity.

Teacher Connection/Self-Care

How much water do you use at school? Do you think about it? This week, make a conscious effort to conserve where you can- check the bathrooms for running faucets, wash items together instead of one at a time, and report any running toilets to the janitorial staff. Every drop counts!

Tips for Diverse Learners

- If you know some of the challenges will be difficult or impossible for your students, you can replace them with more realistic challenges. The goal is to stretch students into new behaviors, but not discourage them.
- The carbon footprint calculator will require access to technology; if you do not have that access, you can easily skip that part - it is optional. It will also be difficult for students to complete on their own (though there are a number of “I don’t know” options provided). If you don’t have additional classroom helpers, it may be too time consuming to do during class. Consider using the tool yourself, first, to see if it’s worth the time investment.



Share

3-5 minutes

Review the definition of **responsibility** - see if students can recite it without prompting: *Being reliable to do the things expected or required of you.*

When we think about responsibilities, we often think about the things we need to do for other people. In reality, we also have responsibilities for the animals and people too.

Ask:

- What kinds of responsibilities do you have for the natural world around you - plants, animals, water sources, etc.?



Inspire

5-7 minutes

This lesson is about helping kids understand what they can do to be more responsible for what happens to our planet - both now and later. We'll talk specifically about the **carbon footprint**. This may be a new term for students. You can show this short video for a good and easy-to-understand explanation:

- **Simpleshow Explains the Carbon Footprint**
- **Link:** https://www.youtube.com/watch?v=8q7_aV8eLUE (2 min)

If you cannot show the video, **explain:**

A carbon footprint is the mark you leave behind on the world - and the bigger the foot print, the worse for the planet. We leave a carbon footprint when we do things that release carbon gasses into the air - like using cars that require a lot of gas, buying food that has to travel many miles to get to our grocery stores, and throwing things away and filling up our landfills. All of these things have a very large carbon footprint - and when we participate in them, our carbon footprint grows too!

Who Cares?

When we make too much carbon, it gets trapped in the air which warms the planet. This can contribute to global problems like the melting polar ice caps, stronger tropical storms and hurricanes, and warmer temperatures that can harm animals and plants. We all need to care about reducing our carbon footprint!



Empower

10-15 minutes

Believe it or not, kids can make a positive impact on reducing our carbon footprint! Building healthy, responsible habits now to help save the planet will turn into lifelong healthy and responsible habits later.

Optional: To give students a baseline for where they are starting from - and if you have access to computers or iPads for each student - have them calculate their current carbon footprint by using this or another online carbon footprint calculator:

https://carbon-calculator.climatehero.org/?source=GoogleKeywords&gad_source=1&qclid=Cj0KCQiAr7C6BhDRARIsAOUKifhrldME_eNve6_0CNzF1I4LYTGyy-MEPd9_qQS-JUq-jO2KbMb_1xlaAo1QEALw_wcB

This is a relatively short exercise (approx. 5 min) though students may need help answering some of the questions. They can answer from their family/household point of view.

The Activity

Give each student a Carbon Footprint Challenge (see below) and go through the directions on the sheet.

Students will track their carbon footprint for one week. At the end of the week, have students bring their challenge tracker back to school to see who scored the most points.

Remind students that it is their **responsibility** to fill out their worksheets and we are trusting everyone to be honest about their scores.



Reflect

5-7 minutes

At the end of the week, see who won the Carbon Footprint Challenge! Remind students that, actually, any act of conservation is a winning strategy and so everyone, regardless of their score, helped reduce their carbon footprint - which is the responsible, kind thing to do for our planet.

Discuss what changes they noticed (e.g., saving energy, using less plastic, walking instead of driving) and how these challenge actions made them feel, knowing they were helping to reduce their carbon footprint.

How does this lesson change how you feel about your responsibilities for the planet?



Extension Ideas

- Encourage students to continue tracking their carbon footprint throughout the month. See what new and lasting healthy habits they can form.
- If you did not use the carbon footprint calculator above, you may want to let parents know about it. They can calculate their household footprint more accurately, and it might jumpstart new and responsible actions they can do at home to reduce their family's footprint.



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AS A RECOMMENDED
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LEARNING.

The Collaborative for Academic, Social, and Emotional Learning (CASEL) has been reviewing evidence-based SEL programs since 2003. Kindness in the Classroom® meets CASEL's SElect Program and is included in the CASEL Guide to Effective Social and Emotional Learning Programs.

Kindness in the Classroom® met or exceeded all of CASEL's criteria for high-quality SEL programming. Kindness in the Classroom® received CASEL's highest designation for high-quality SEL programming.

<https://casel.org/guide/kindness-in-the-classroom/>

Carbon Footprint Challenge

Over the next week, you will work on completing different challenges to reduce your carbon footprint. Each challenge is worth points, and the goal is to accumulate as many points as possible by the end of the week.

Directions: Over the next week, complete as many of the following challenges as you can. Put a mark each time you complete a challenge (you can complete a challenge more than once). Be sure to add up the points for *each time* you completed the challenge.

Example: If you biked to school 2 times during the week, you get 10 points for each time you biked, for a total of 20 points.

Challenge	Points	Completed
Walk or bike to school (if possible)	10 points	
Turn off lights when not in use	5 points	
Use a reusable water bottle	5 points	
Reduce screen time by 1 hour	10 points	
Take a 3- to 5-minute shower	5 points	
Recycle or compost something you might normally just throw away	5 points	
Plant a tree or flower	15 points	
Pack a lunch with ZERO single-use plastic (like wrappers, straws, plastic silverware)	10 points	
Use public transportation (like a school bus) or carpool	10 points	
Unplug electronics when not in use	5 points	
Use reusable grocery bags instead of plastic grocery bags	5 points	
		Total Points: