



Science Virtual Learning

7th Grade Science

Reducing Your

Carbon Footprint

May 8, 2020

7th Grade Science Lesson: May 8

Objective/Learning Target:

I can identify how I can reduce my carbon footprint.



Warm-Up:



On a separate sheet of paper, write down what you think the words “carbon footprint” mean.

Watch this [video](#) and see if you were correct!



Practice

Your **carbon footprint** is defined as the total amount of greenhouse gases produced to directly and indirectly support human activities. We usually show this amount in tons of carbon dioxide (CO₂).

How big do you think YOUR carbon footprint is? We are going to find out by doing an activity found [here](#).



On the far right, choose COMPLETE CALCULATIONS FOR “My Entire Household”. You do not need to fill out your zip code. Click the green CALCULATE FOOTPRINT button.

Practice continued

First, you think about your household. You may have to estimate a few things--that's OK! On the far right, you will start to see how your carbon footprint (the amount of carbon dioxide you make each year) compares to the average person in the United States. In this example, the person is making less of a carbon footprint than the average American.

HOUSEHOLD TRANSPORTATION TRAVEL

Tell us about your household

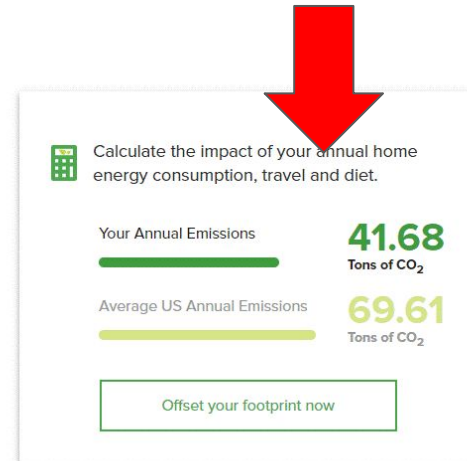
Number of residents including myself:

I live in a(n):

Size of housing:

Do you purchase clean energy such as wind or solar?

Do you recycle items such as metal, plastic, glass, or paper? Yes No



Practice continued

But we are not done yet! At the bottom, click the green **CONTINUE TO TRANSPORTATION** button.

Add details about how you and your family get around. Again, you may have to make some guesses. If your family has more than one car, be sure to click 'Add another car'.

Do you make more or less carbon dioxide than the average American? Look at the far right to see. In this example, the person still has a smaller carbon footprint than the average American, but the difference is shrinking.

HOUSEHOLD **TRANSPORTATION** TRAVEL

How do you typically get around?

Select all of the ways you travel

- Intercity/Commuter Rail
- Bus/Subway/Metro
- Car
- Bike/Walk

My car is an electric vehicle Yes

My annual mileage is...

Calculate the impact of your annual home energy consumption, travel and diet.

Your Annual Emissions	49.92 Tons of CO ₂
Average US Annual Emissions	69.61 Tons of CO ₂

Offset your footprint now




Practice continued

Click the green “CONTINUE TO TRAVEL” button at the bottom. Make some estimates on travel for your family. How does your carbon footprint compare to the average American now? In this example, the person is still creating a smaller footprint than the average American, but the difference continues to grow smaller.

HOUSEHOLD TRANSPORTATION TRAVEL

Calculate the impact of your travel.

Total number of long round-trip flights (2500+ miles) made by household members in a year	<input type="text" value="0"/>
Total number of medium round-trip flights (300-2500 miles one way) made by household members in a year	<input type="text" value="3 (US Average)"/>
Total number of short round-trip flights (<300 miles one way) made by household members in a year	<input type="text" value="3 (US Average)"/>
Average number of nights spent in a hotel per year	<input type="text" value="3-4 Weeks (US Average)"/>

 Calculate the impact of your annual home energy consumption, travel and diet.

Your Annual Emissions **52.26**
Tons of CO₂

Average US Annual Emissions **69.61**
Tons of CO₂

[Offset your footprint now](#)





Practice continued

Click the orange “CALCULATE MY FOOTPRINT” button at the bottom of the site. On your sheet of paper, answer the following questions:

1. What is YOUR carbon footprint?
2. How many trees does it take to offset (*balance out*) your carbon footprint annually (*each year*)?
3. Scrolling down, what are four ways that you can reduce your carbon footprint?

Practice continued

Answers:

Your answers will be different based on your carbon footprint, but here is where you can find the answers for each question on the webpage.

Question #1

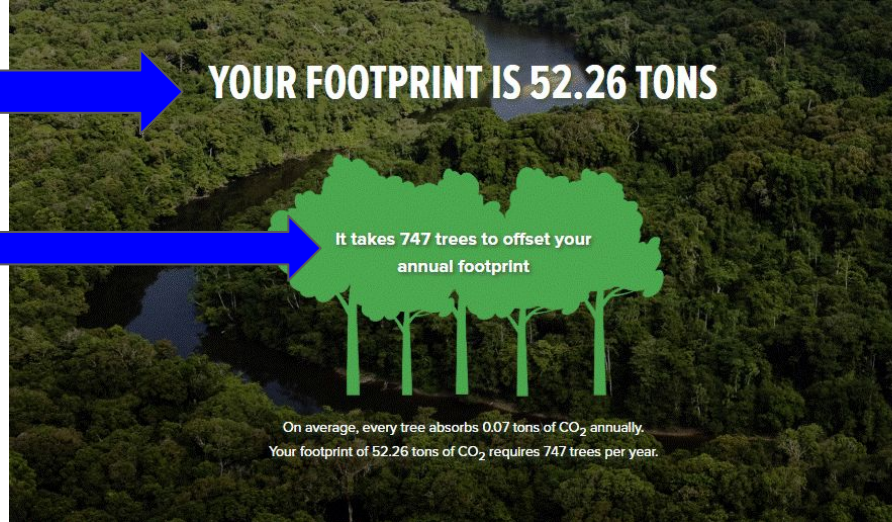


YOUR FOOTPRINT IS 52.26 TONS

Question #2



It takes 747 trees to offset your annual footprint



Practice continued

Answers continued:

Q
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N

3



QUICK TIPS TO DECREASE YOUR FOOTPRINT

Decreasing your impact on the climate could be easier than you think.



Improve your fuel economy

For every 5 MPG you improve the fuel economy of your car:
0.9 metric tons saved annually



Institute Meatless Mondays

For every day of the week where you eliminate red meat:
0.4 metric tons saved annually



Fly direct

For every medium-length domestic flight where you replace a layover with direct:
0.055 metric tons per flight



Take the bus

For each day of the week you take the bus to work (or telecommute):
0.7 metric tons saved annually



Purchase consignment clothing

For buying second-hand or consignment for one out of every two clothing purchases:
0.5 metric tons saved annually



Change your thermostat

For every degree that you turn down your thermostat in the winter:
0.06 metric tons saved annually

Now let's take a look at some more ideas on how YOU could reduce your carbon footprint. On your sheet of paper, write down three new ways that you would consider trying. Use the diagram to the right to help you.



Practice continued

Finally, now that we know lots of ways to reduce our carbon footprint, let's try this [just for fun quiz](#) and see how well we do!

