

Name:

Date:

Class:

Weather & Atmosphere, Lesson 6: Global Climate Change – Carbon Footprint Worksheet

Instructions

Your “Carbon Footprint” is a calculation that tells you how much carbon dioxide you produce. Since carbon dioxide is a greenhouse gas, this worksheet can help you see how you contribute to global warming.

Family Survey

Answer each question for a yearly total (multiply a monthly total by 12).

1. Number of miles driven per year _____ X (multiplied by) the vehicle’s average gas mileage _____ = _____ gallons of gasoline used.

(Do this for each vehicle your family owns)

_____ X _____ = _____

_____ X _____ = _____

_____ X _____ = _____

Total _____

2. Number of miles of air travel for your family _____
3. Average number of miles your family travels by bus/other mass transit _____ .
4. Kilowatt-hours of electricity used _____ .
(Look at your utility bill to find out a monthly amount and multiply by 12.)
5. Therms of natural gas used _____ .
(Look at your utility bill to find out a monthly amount and multiply by 12.)
6. Gallons of propane or bottled gas used _____ .

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7. Other sources of energy your family uses?

8. Total number of people living in your household _____ .

Your "Footprint" on the Global Environment – The Greenhouse Effect

Use the information you gathered in your Family Survey to calculate how much CO₂ (Carbon Dioxide) you generate per year. Carbon Dioxide is one of the main gases involved in creating the global Greenhouse Effect.

1. Gallons of gasoline used _____ x 22 pounds CO₂/gallon = _____ .

2. Miles of air travel _____ x 0.9 pounds/mile = _____ .

3. Miles on mass transit _____ x 0.5 pounds/mile = _____ .

4. Kilowatt hours _____ x 1.5 pounds/ kWh = _____ .

5. Therms natural gas _____ x 11 pounds/therm = _____ .

7. Gallons of propane _____ x 13 pounds/gallon = _____ .

Total pounds of CO₂ generated (add up all the numbers on the right) _____ .

Total pounds generated (divided by) number of people in your household =

_____ (Total You Generated)

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Reducing Your Impact

In the space below, write down some actions that you and your family could do to reduce the Greenhouse Effect.
