Exploring Our Carbon Footprint

1. Make a list of your daily trips.
2. Find the distance of each trip and the total distance traveled in a day. Use Google Maps.
3. Find the car's fuel consumption rate (GPM). Fuel Economy
4. Calculate the total fuel consumption. To do this, make sure to have the total distance traveled in miles.
   1 mile = 1.609 kilometers
5. Calculate the total CO_2 emissions generated by the amount of fuel used in your daily trips and annually.
   1 gallon emits 19.6 pounds of CO2
6. Calculate the number of trees needed to offset your CO2 emissions.
   A mature tree can absorb an average of 79 pounds of CO2 per year.

Steps 1 and 2

Trip	Distance Traveled (unit of measurement)
Total Distance Traveled	

Step 3

Car's Fuel Consumption Rate	
Year	
Make	
Model	
MPG (miles per gallon)	

Step 4

Total Fuel Consumption	
Total Distance Traveled (miles)	
Car's Fuel Consumption (MPG)	
Total Fuel Consumption (gallons)	

1 mile = 1.609 kilometers

Step 5

Total CO2 Emissions Generated By Fuel Use	
Total Daily Fuel Consumption (gallons)	
Total Daily CO2 Emissions (pounds)	
Total Yearly CO2 Emissions (pounds)	

1 gallon emits 19.6 pounds of CO2

Step 3

Number of Trees Needed to Offset Your CO2 Emissions in a Year	
Total Yearly CO2 Emissions (pounds)	
Number of Trees Needed to Offset Your CO2 Emissions	

Analysis and Reflection

Answer the following questions. Include data from your analysis worksheet.

1. **What surprised you about your results?**

2. **What was most interesting about your data?**

3. **Write two things you can do to lower your family's carbon dioxide emissions.**