

Name: _____

Period: _____

Hybrid vehicles & CO₂

Objective: To analyze how various vehicles emit different amounts of CO₂.

Much of the carbon dioxide emitted into the atmosphere by households comes from gasoline powered vehicles. "Regular" cars have relied on the internal combustion engine since the automobile was first invented. Recent technologies have combined this engine with an electric engine to create a hybrid. All hybrids tend to greatly increase gas mileage, decrease pollution and save on fuel costs, but not all hybrids are alike.

Procedure:

1. To calculate the amount of CO₂ given off by a vehicle, you must know how many miles per gallon of gasoline the vehicle gets. This information is shown in the chart below for the SUV and a compact car. Research five other hybrid vehicles and find out what their MPG are.
2. Assume that each vehicle is driven about 15,000 miles annually. Calculate how many gallons of gasoline each vehicle uses per year. Record your data in the chart below.
3. One gallon of gas emits about 20 lbs of CO₂. Calculate and record how many pounds of CO₂ are emitted by each vehicle annually.

	Estimated MPG (miles per gallon)	Gallons of gas used annually	Amount of CO ₂ emitted annually (lbs)
SUV	15		
Compact car	25		
Hybrid _____			
Hybrid _____			
Hybrid _____			
Hybrid _____			
Hybrid _____			

Conclusion:

If you were in the market for a new car, which vehicle would you choose (with the intention of having the greatest impact on climate change)? Explain.