

Name \_\_\_\_\_

Date \_\_\_\_\_

Class \_\_\_\_\_

## The Carbon Footprint of Your School Commute

*In Sonoma County, transportation is the primary source of greenhouse gas emissions such as Carbon dioxide (CO<sub>2</sub>). In this activity, you will determine your “commute carbon footprint” and analyze how that footprint might change if you used different modes of transportation.*

How much CO<sub>2</sub> is generated by different modes of transportation?

Mode of transportation	Pounds of Carbon emitted per mile
Bike, walk, or skate	0.02
Bus	0.11
Car or truck, carpool	0.89 divided by # of students in vehicle <i>For example, if 3 students carpooled, each would be responsible for approximately 0.3 lbs per mile</i>
Car or truck, one student per vehicle	0.89

1. How many miles away from school do you live? \_\_\_\_\_  
(Use Google map to determine the distance you travel to get to school)
2. How many miles per week do you travel to and from school? \_\_\_\_\_  
Multiply distance from school by 10 (number of trips per week)
3. Now, let's find out how much CO<sub>2</sub> you would generate with each different mode of transportation.  
Multiply the number of miles traveled per week by lbs. of Carbon emitted per mile for each mode of transportation. For example, if you travel 34 miles per week, you would use the following formula for walk, bike, or skate:

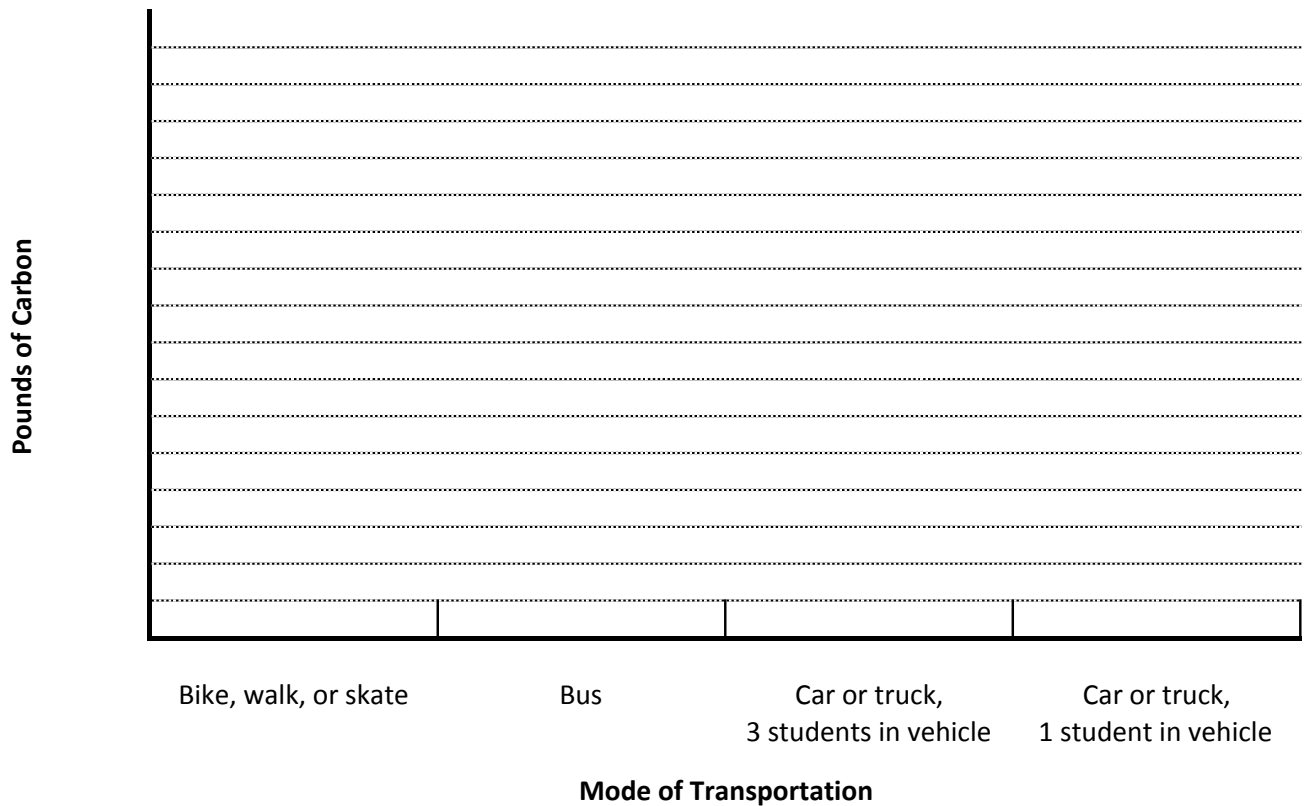
$$\begin{array}{ccccccc} 34 & \times & 0.02 & = & .68 \\ \text{miles per week} & & \text{lbs. per mile} & & \text{total carbon footprint} \end{array}$$

- Bike, walk, or skate:
- Bus:
- Car or truck, 3 students per vehicle:
- Car or truck, one student per vehicle:

4. Which mode of transportation do you usually use? Circle your total weekly carbon footprint above.



5. Fill out the graph for each mode of transportation. Make sure to label the y-axis.



6. Multiply your weekly carbon footprint by 35 to calculate your school year commute carbon footprint.

\_\_\_\_\_

7. How many students are at your school? What would the student body carbon footprint be if everyone had the same transportation habit as you? Multiply your commute carbon footprint by the number of students in your school.

\_\_\_\_\_

8. Are there any changes you could make to the way you commute that would lower your commute carbon footprint? Could you walk or bike more often?

