

Cost of a Car

Sixth Grade STEM Startups



Developed by:

The teachers, students, and mentors in the
Gaming Research Integration for Learning Laboratory® (GRILL®) Summer 2015

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1. COST OF A CAR

1.1. OVERVIEW

Cars are everywhere in the US. A study concluded that there are 1.3 people to each car in the US, which equates to over 245 million cars owned. So, how much does it cost to own one of these common place objects, are some cars more affordable than others, do I only need to pay for the car?

1.2. PROBLEM

You need a reliable car to get you to work, which is 15 miles away, and you work 5 days a week. Additionally, you cannot afford to spend more than \$8300 on the car over the course of the year.

1.3. THINGS TO CONSIDER

- Introduction (What car and its features)
- Monthly payments
 - The car needs to be paid off in 5 years' time
- Insurance Cost
 - What insurance did you choose?
 - How much does it cost?
- Gas Cost
 - What is the average gas cost for where you live?
- Maintenance Cost
 - Will something go wrong with your car?
 - How much will it cost to fix?
- Mileage Traveled
 - Include all miles traveled from work, grocery, etc.

1.4. REQUIREMENTS

- Each item under “Things to Consider” must be represented by an algebraic equation with the variables identified
- Each item needs to have the cost per month and the cost per year calculated (include an equation here)
- All prices/figures you create must include research and an explanation
- Tax needs to be included when appropriate

1.5. PROJECT WRITE-UP

This project must be written out in a neat and organized fashion and include rationale for decisions. Your write-up must include the following: an introduction to the project, payments cost, insurance cost, gas cost, maintenance cost, and mileage traveled.

1.6. RUBRIC FOR COST OF A CAR

	Components	Points Earned	Comments
Math Work	<ul style="list-style-type: none"> - Includes calculations for monthly and yearly cost to operate vehicle -Includes an accurate equation with variables described -Student took into account the \$8300 budget 	/15	
Research	<ul style="list-style-type: none"> - Every value/figure has a source explaining its amount 	/10	
Project	<ul style="list-style-type: none"> - All components listed are included and 	/15	

Write-Up	explained with visuals, math work, and research (sections are broken down appropriately)		
Grammar and Mechanics	<ul style="list-style-type: none"> - Correct grammar and mechanics - Units are used appropriately - Layout is simple and easy to follow 	/5	
Works Cited Page	- All research used in project is found under Works Cited page and is consistent in format	/5	
Total		/50	