## Title: Better Gas Mileage (Reading Comprehension \& Writing)



## Standard(s) Addressed in Lesson

Read with Understanding
Convey Ideas in Writing

## Benchmark(s) Addressed in Lesson

- R.4.1 - Identify purposes for reading (for example, to generate and answer questions about a topic, to solve problems).
- R.4.5 - Use context clues (for example, cause \& effect and compare \& contrast relationships) to determine the meaning of words in texts.
- R.4.8 - Understand meaning of some specialized content vocabulary (for example, "constitution").
- R.4.15 - Draw conclusions about text using knowledge of main idea(s) and supporting details, consistent with complexity of the text.
- R.4.16 - Construct meaning from text by evaluating relevance of prior knowledge and applying appropriate knowledge to new info. read.
- W.4.2 - Write for varying purposes (for example, to persuade, to explain, to entertain).
- W.4.3 - Write for varying types of tasks (for example, business letters, letters to the editor, job applications, literature responses, informational essays, informal writing).
- W. 4.14 - Write simple, compound and complex sentence structures based on the writing situation.


## Materials

Reading Comprehension story, "Better Gas Mileage," available to be printed or to read online Computer with Internet access
Pencil or pen

## Learner Prior Knowledge

Basic knowledge of automobiles and buying gasoline.

## Activities

Step 1 Introduce the topic of gasoline mileage by asking students the price of gasoline today. Discuss recent
gasoline prices. Ask if they know of ways to get better gas mileage.
Step 2 Review vocabulary words found in the story:
a. Mileage - the number of miles a vehicle can travel per unit of fuel
b. Hybrid car - a car than operates using both gas and electricity
c. Diligent - careful and hard-working
d. High octane fuel - fuel that requires a high amount of energy to ignite

Step 3 Direct students to the website:
http://old.southwestabe.org/index.php/reading-skills-for-todays-adult/group-2-printable
Look for Level 5.5 and choose the story, "Better Gas Mileage."
Students may print story and the questions, or teacher may print them ahead of time.
Step 4 Read the text and answer the 7 questions, then choose one of two options for the writing assignment at the bottom of the paper. Option A is to summarize the reading in student's own words. Option B is to compare and contrast the tips that were recommended in the reading with what student does now to save money on gas.

Step 5 Discuss the questions together as a class. Have a few students volunteer to read their writing assignment.

## Assessment/Evidence

Class discussion, completed worksheet.

## Adaptations for Beginning Students

Teacher monitors and checks for understanding. Clarify any words not understood.

## Adaptations for Advanced Students

Advanced students may search the Internet source (through Google) stated in the reading of the Federal Trade Commission's Consumer Alerts' webpage, "Good, Better, Best: How to Improve Gas Mileage" resource. Students may also do a Google search to find other website links that offer tips on better gas mileage.

## Teacher Reflection/Lesson Evaluation

Teacher asks if students learned anything and if they will try any of the ideas.
This lesson was created by Middletown ABLE.

## Better Gas Mileage

## Pre-reading

Questions: What do you know about this topic? What questions do you have?
Definitions: Mileage - the number of miles a vehicle can travel per unit of fuel
Hybrid car - a car than operates using both gas and electricity
Diligent - careful and hard-working
High octane fuel - fuel that requires a high amount of energy to ignite

## Reading

Frank is a thrifty person. He keeps detailed records of his income and expenses. He only buys things he really needs and uses coupons when he shops. He tries not to overspend. Despite Frank's best efforts, his cash flow is less this year than last year. The high gas prices have forced him to spend more than he had planned.

Frank would like to improve his gas mileage. Buying a hybrid or electric car is one option, but not for Frank. He does not have enough money for a down payment, nor does he want to make car payments. Besides, his car is still in good shape.

What are some other gas saving options? Frank decides to check online. He goes to Google and types in "better gas mileage." There are some helpful tips at the Federal Trade Commission's (FTC) Consumer Alerts' webpage. Frank reads their "Good, Better, Best: How to Improve Gas Mileage" resource.

There are a variety of suggestions on improving gas mileage while driving and maintaining your car. Frank learns that gas mileage decreases rapidly at speeds above 60 miles per hour, so he begins to stay within the posted speed limits.

When Frank waits for a long train, he now turns off his car instead of idling. Idling wastes fuel, which costs money, and pollutes the air. He also removes things promptly from his trunk. An extra 100 pounds in the trunk can reduce a car's fuel economy by up to two percent.

Frank is diligent about car maintenance. The engine, tires and air filters are checked regularly. Tuning a car engine according to the owner's manual can increase gas mileage by an average of four percent. Properly inflated and aligned tires can increase gas mileage up to three percent. Replacing clogged air filters can increase mileage up to ten percent.

How about at the pump? Frank has often wondered about the high octane fuel. Would it be better for his car? Would it give him better gas mileage? The FTC claims that a higher octane gas offers no benefit. In fact, they say, "Unless your engine is knocking, buying higher octane gasoline is a waste of money."

## Understanding

1. Why did Frank's cash flow decrease?
2. What does the word idle mean in this reading?
3. What Internet search engine did Frank use?
4. Which mileage tip appeared to have the greatest benefit?
5. What gas mileage improvement option did Frank not use? Why?
6. List one driving tip and one maintenance tip for better gas mileage.
7. Where did Frank find the helpful tips?

## Writing

Option A: Summarize the reading in your own words.
Option B: How do you save money on gas? Compare and contrast what you do with the tips that were recommended in the reading.

## Better Gas Mileage - Level 5.5

