

## Comprehension

### Genre

A **Nonfiction Article** in a newspaper or magazine tells facts about a person, place, or event.



### Evaluate

#### Persuasion

Persuasion is a method of getting other people to agree with your ideas or opinions.

# THE POWER OF

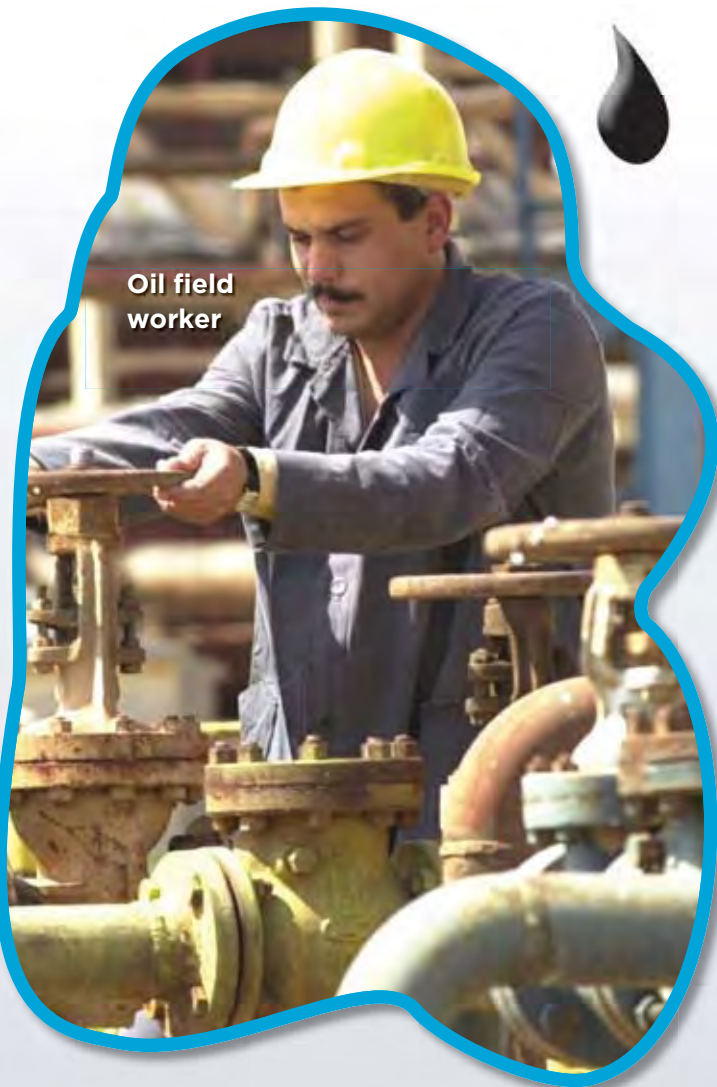
# OIL

**WHAT MAKES OIL  
SO VALUABLE AND ALSO  
SO CHALLENGING?**

**W**hat can you find deep beneath Earth's surface? Here's a hint: it's shiny, sticky, slick, and very powerful. It's oil.

Oil began forming hundreds of millions of years ago as plant and animal remains were covered with layers of rock. Over the ages, those remains **decayed**. They turned into a mighty black brew that we use to make **fuels**. Fuels, such as gasoline, are energy sources that are usually burned to produce power.

Some nations sit atop huge underground lakes of oil. Other places, such as Japan and some European countries, have little or no oil of their own. The United States produces oil, but it also buys about 59% of what it needs.




Oil field  
worker

Oil is a very important fuel because it helps power cars, trucks, trains, planes, factories, and **electrical** plants. Oil is also an ingredient in some products such as tires, crayons, and other things.

Oil is also a messy fossil fuel. When fossil fuels burn, they release carbon dioxide and other polluting gases. The gases are bad for our health and our planet. They can trap heat near Earth's surface, contributing to the worldwide rise in temperatures known as global warming. Ships carrying oil also have spilled millions of gallons, polluting oceans and shorelines and killing sea life.

## HOOKED ON OIL

The United States uses more oil than any other country on the **globe**. Most is pumped into our 200 million cars in the form of gasoline. On average, an American burns through 25 barrels of oil each year. Compare this with 15 barrels for a citizen of Japan or 12 for a person living in France.



Some of the 200 million cars on American roads

## WHERE DOES ALL THE OIL GO?

The answer is . . . directly into our vehicles, mostly. Traffic on U.S. highways grows heavier every year. Cars, trucks, airplanes, trains, and other forms of transportation burn the most fossil fuel. As you can see, the other uses for oil don't begin to measure up.

Transportation  
13.2 million  
barrels  
per day

Business  
and  
Industry  
5.1

Homes  
0.8

Making  
Electricity  
0.6



Source: Department of Energy, 2001

## IS THERE ANOTHER WAY?

If oil causes so many problems, why do we depend on it? For starters, nearly all of our cars and factories are designed to use oil and gas. Changing them to use other fuels would be very costly.

Still, it's possible to use less. In 1973, a few oil-producing nations got angry at the U.S. The price of oil tripled in just a few months. Gasoline was in short supply and there were long lines at gas stations. That forced auto companies to build cars that use less gas. In 1975, the average car could go just 12 miles on one gallon of gas. By 1990, some cars could travel 30 miles on just one gallon.

In recent years, oil prices dropped and Americans went back to buying big gas-guzzlers. About one of every four cars now sold is a sport utility vehicle (SUV), which get as little as 10 or 11 miles per gallon. But that's starting to change, too.

## WHAT ARE YOU WAITING FOR?

### The Facts Are In

Research says roughly 88,000 hybrids were sold in the United States in 2004. That total will climb to 535,000 hybrids per year by 2011. Hybrids use electric motors and battery packs to improve fuel efficiency. A hybrid engine gets better gas mileage than one that runs on gasoline. Hybrid owners save money at the pumps, and through 2006 they are also getting a \$2,000 tax break. Best of all, hybrid drivers are cutting their annual emission levels by a whopping 90%!



Hybrid car

### What Hybrid Drivers Are Saying

- Bill says, "I'd have to throw an anchor out of my window to get mileage less than 40 mpg."
- Dennis says, "I have 60,000 miles on my hybrid. Love it! My lifetime mileage is 53 mpg!"

### Celebrities Are Joining the Bandwagon

Many actors and professional athletes are driving hybrids. They are raving about the performance of their cars and feeling good about making the responsible choice.

### Come See for Yourself!

In celebration of Earth Day, alternative energy groups across the nation will be hosting at least one presentation of hybrid vehicles in every state. Find the location of the one near you by logging on to [www.earthdayevents.example.com](http://www.earthdayevents.example.com). See for yourself! "The Hybrid—It's the Future Now."

## Think and Compare

1. What is oil made from?
2. How did the oil supply affect the design of American cars?
3. If you wanted to persuade someone to buy a hybrid vehicle, what persuasive argument would you make? Which techniques of persuasion would you use?
4. Based on what you have read in "Clean as a Breeze" and "What Are You Waiting For?" how would you explain the relationship between clean energy choices and emission levels?





## Test Strategy

### Author and Me

The answer is not always directly stated. Think about everything you have read to figure out the best answer.



# Windmills on the Prairies

“Prairies are beautiful places,” says Mackenzie Burkhart. “The long, flowing grass looks just like the ocean.”

This sixth-grader from Park Ridge, Illinois, worries that nuclear reactors threaten the prairies in his state. A dozen reactors produce nearly three-quarters of all the electricity for the state. Mackenzie believes nuclear reactors have the potential to be extremely dangerous. In an accident at a nuclear power plant, nuclear waste could leak out. That could have devastating effects on the plants and animals of the prairies.

Burkhart’s proposed solution: Provide energy from a more environmentally safe source—windmills!

Big, colorful windmills caught Mackenzie’s eye while he was on vacation in Denmark with his family. “Windmills were everywhere, and they provided power for much of the country,” he says.

Not only would windmills be environmentally safer, but, as Mackenzie points out, they are also a renewable source of power. Unlike fossil fuels or even nuclear fuels, he says, “wind is endless.”

**Directions: Answer the questions.**

**1. Why are nuclear reactors used as a power source?**

- A to replace nonrenewable sources like fossil fuels
- B because they are the only safe source of power
- C they can never endanger the environment
- D they are the cheapest form of energy

**2. Some countries use windmills for power.  
What is the problem with using windmills?**

- A They create pollution.
- B They can hurt animals and wildlife.
- C They only work when there is enough wind.
- D They only work in the summer.

**3. Why is it important to create alternatives to nonrenewable energy sources?**

- A Winters are getting colder in many parts of the world.
- B Global warming increases our need for energy.
- C People want to choose where their power comes from.
- D Our limited supply of natural resources won't last forever.

**4. What reasons would you give for switching from nuclear power to windmill power in your town?**

**5. What is another alternative energy source to replace fossil fuels and nuclear reactors? Describe this source and tell why you think it would work. Use details from the article to support your response.**

### Tip

You have to think about the entire passage to choose the best answer.



# Write to a Prompt

In the selection “The Power of Oil” you read about the importance and challenges of oil. Imagine you own a hybrid car and are taking a road trip with friends. Suddenly you spot something in the road. In one or more paragraphs, write about what you see. Make sure your story has a beginning, a middle, and an ending.



I made sure my ending included the solution to the problem.

## On the Road

Jake, Krista, Alex, and I were cruising down the road in my hybrid. I slammed on the brakes. A large, unfamiliar object sat in the middle of the road.

We saw that several people were standing in front of the object. They all looked upset, but a kid about 10 seemed most upset of all. “What happened?” I asked.

“We ran out of gas,” the kid told me. “I’ll never make soccer practice!” He slumped against the huge hulk. Suddenly I realized what it was: a gas guzzler, a kind of car lots of people had years ago.

My friends and I didn’t know people still drove gas-powered cars. Luckily, Alex had an idea. “You can hop in with us,” he said. “Leave your car here.”

“Good idea,” I said. “We’ll make some calls. We can probably find someone who knows how to get some gas.”

## Writing Prompt

In the selection “The Power of Oil” you read about some of the problems of oil. Imagine you are the inventor of a car that uses solar or wind energy. You are out driving in your new car when the unexpected happens. Write a story about what happens. Make sure your story has a beginning, a middle, and a strong ending.



## Writer's Checklist

- Ask yourself, who will read my story?
- Think about your purpose for writing.
- Plan your writing before beginning.
- Use details to support your story.
- Be sure your story has a beginning, a middle, and an ending.
- Use your best spelling, grammar, and punctuation.