

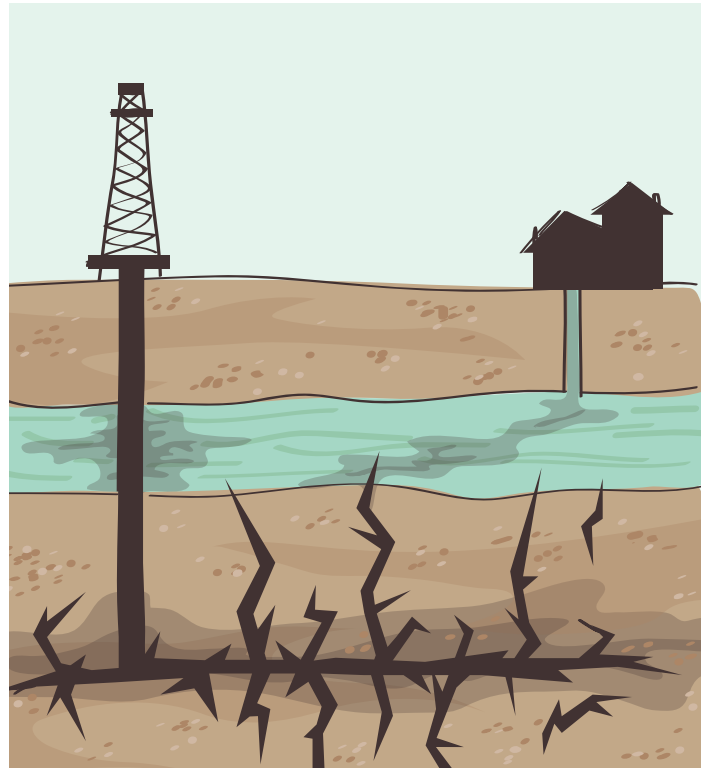
# Fracking

*"We are the Saudi Arabia of natural gas."* —President Barack Obama

## Pre-Reading

### A. Warm-Up Questions

1. Do you know what "fracking" is?  
If not, what do you think it is (based on the image)?
2. What are fossil fuels?
3. What's the difference between "clean energy" and "dirty energy"?



### B. Vocabulary Preview

Match the words on the left with the correct meanings on the right.

- |                        |   |
|------------------------|---|
| _____ 1. hydraulic     | a) to remove  |
| _____ 2. extract       | b) a deep opening under the ground                                      |
| _____ 3. well          | c) a time expression that describes something that was true in the past |
| _____ 4. used to       | d) to disallow  |
| _____ 5. controversial | e) replacing itself naturally   |
| _____ 6. ban           | f) related to the movement of water and pressure in a pipe              |
| _____ 7. renewable     | g) causing disagreement   |
| _____ 8. thanks to     | h) due to   |
| _____ 9. get used to   | i) accessible   |
| _____ 10. recoverable  | j) to become accustomed to  |

## Reading

### FRACKING

*Are we ripping the earth apart?*

1. Fracking, technically referred to as “**hydraulic** fracturing,” is a technique for **extracting** fossil fuels from rock that is buried deep in the earth. First, a large **well** is drilled near a source of gas or oil. Then a mixture of water, sand, and chemicals is pumped into the well. This creates breaks in the rock where the fuel is located. The enclosed fuel is released, recovered, processed, and sold. Fracking is primarily used to recover natural gas.
2. While the technique has been around since the 1940s, governments **used to** think fracking was too expensive. Building roads, digging wells, transporting materials, and disposing of chemicals are all costly procedures. Fracking has become a booming industry in the US in recent years because the fossil fuels that are easy to access have been used up.
3. Fracking is **controversial** because of the environmental hazards. Firstly, fracking uses a lot of water! One well requires up to five million gallons of water. In addition, chemicals used in fracking pose a risk to air and groundwater. Nobody knows for sure what the long-term effects of these chemicals will be to humans. Traffic from tanker trucks also reduces air quality, and this is one of the primary concerns of environmentalists.
4. Many environmentalists think fracking ought to be **banned** worldwide. *Fractivists* want governments to focus on developing long-term energy solutions. Clean, **renewable** energy solutions include wind, water, and solar energy. But not everyone is opposed to the technique. **Thanks to** fracking, Americans are **getting used to** cheaper energy rates. Some studies suggest that there is enough **recoverable** natural gas to power America for the next 100 years.

## Comprehension

Discuss these questions in pairs, and write the answers in your notebook.

1. What is fracking? Use your own words to describe this technique.
2. Why is fracking a booming industry in the US now?
3. How might fracking pose health risks to humans?
4. What word is used to describe people who are strongly against fracking?
5. How has fracking changed the US economy?

## Vocabulary Review

Complete the sentences using vocabulary from page 1.  
You may need to change the word forms.

1. Some environmentalists think disposable diapers should be \_\_\_\_\_ .
2. Humans are \_\_\_\_\_ hearing about severe storms and natural disasters.
3. \_\_\_\_\_ recycling programs, plastics are kept out of landfill sites in many countries.
4. Hundreds of tanker trucks carry water to each gas \_\_\_\_\_ .
5. Wind is an example of a \_\_\_\_\_ energy source.
6. The \_\_\_\_\_ of fossil fuels became a booming industry during the Industrial Revolution.

# Grammar Review

## USED TO

### A. Reference

#### used to + base verb

The past expression “used to” means *something was performed repeatedly in the past (but not anymore)*. It may also mean *something was true in the past, but it is not true anymore*.

- We **used to** pay less for gas.

#### be used to + noun or gerund (-ing verb)

#### get used to + noun or gerund (-ing verb)

The expression “be used to” means *to be accustomed to*, while “get used to” means *to become accustomed to*.

- We **are used to** the noise from the drilling.
- We will **get used to** driving around the construction site.

#### Note:

#### be used (passive) + infinitive form

The verb “use” in the passive form becomes “be used” and should not be confused with the forms to the left.

- The trucks **are used to** deliver water to the site. (*Delivering water* is the main function of the trucks.)

### B. Complete the Sentences

Fill in the blanks with the correct expression.

1. We \_\_\_\_\_ the pollution in our city.  
(are used to / used to)
2. I used to \_\_\_\_\_ to work, but now I ride my bike.  
(drive / driving)
3. Fracking \_\_\_\_\_ be banned in my country.  
(used to / is used to)
4. The mixture \_\_\_\_\_ create pressure in the well.  
(is used to / use to)
5. We are \_\_\_\_\_ hearing the drilling.  
(getting used to / use to)
6. The president \_\_\_\_\_ care about the environment.  
(used to / is used to)

### C. Write Examples

In your notebook or in the blank space on the next page, try writing your own examples of each form of “used to.”

## Discussion Questions

1. Why might people in rural communities be more opposed to fracking than people in urban centers?
2. What fracking regulations should governments impose?
3. Why do you think the author chose this subtitle for the reading?  
What other subtitles can your class come up with?

## Critical Thinking

Is it possible to estimate how much energy a country will use in the next 100 years? What factors must be taken into account?

## Listening – Gap Fill

🔊 <http://blog.esllibrary.com/2014/01/08/podcast-fracking/>

Fill in the blanks as you listen to the recording.

### FRACKING

*Are we ripping the earth apart?*

1. Fracking, technically referred to as “hydraulic fracturing,” is a technique for \_\_\_\_\_ fossil fuels from rock that is buried deep in the earth. First, a large well is drilled near a source of gas or oil. Then a mixture of water, sand, and chemicals is \_\_\_\_\_ into the well. This creates breaks in the rock where the fuel is located. The enclosed fuel is released, recovered, processed, and sold. Fracking is \_\_\_\_\_ used to recover natural gas.
2. While the technique has been around since the 1940s, \_\_\_\_\_ used to think fracking was too expensive. Building roads, digging wells, transporting materials, and disposing of chemicals are all costly procedures. Fracking has become a \_\_\_\_\_ industry in the US in recent years because the fossil fuels that are easy to access have been used up.
3. Fracking is controversial because of the environmental \_\_\_\_\_. Firstly, fracking uses a lot of water! One well requires up to five million gallons of water. In addition, chemicals used in fracking \_\_\_\_\_ to air and groundwater. Nobody knows for sure what the long-term \_\_\_\_\_ of these chemicals will be to humans. Traffic from tanker trucks also reduces air quality, and this is one of the primary concerns of environmentalists.
4. Many environmentalists think fracking ought to be banned worldwide. *Fractivists* want governments to focus on developing long-term energy solutions. Clean, \_\_\_\_\_ energy solutions include wind, water, and solar energy. But not everyone is opposed to the technique. Thanks to fracking, Americans are getting used to cheaper energy rates. Some studies suggest that there is enough \_\_\_\_\_ natural gas to power America for the next 100 years.

1. extracting, pumped, primarily
2. governments, booming
3. hazards, pose a risk, effects
4. renewable, recoverable

**ANSWERS:**