

Gale Lesson Plan

Global Issues In Context: Fracking

GRADE LEVEL: 9-12

SUBJECT/CONTENT: Social Studies (U.S. History), Science, Civics

SUMMARY OF LESSON: Students will learn about the controversial practice of fracking or hydraulic fracturing. Students will evaluate evidence from both sides of this issue to determine if they would support or deny access to oil companies wishing to lease land in a fictional town. The final project will be a Town Hall Meeting where students will discuss fracking and then vote to allow or deny access to the oil companies.

FOCUS QUESTION: Would you support or deny access to oil companies wishing to lease land for fracking purposes?

RESOURCE: *Global Issues In Context*

TIME FRAME: 3-4 class periods

MATERIALS:

- Access to computers and *Global Issues In Context*
- Handouts: Argument Worksheet and Fracking Ballot
- Index cards; the **Highlights and Notes** tool in *Global Issues In Context* will also be used to create digital notecards

VOCABULARY: Students should be familiar with the terms **hydrocarbon**, **extraction**, **natural gas**, **methane**, **fracturing**, and **aquifer**.

OBJECTIVES:

- Define fracking/hydraulic fracturing
- Analyze environmental and historical impact of fracking
- Evaluate the economic impact of fracking in both the community as well as larger economic issues associated with fracking
- Compare environmental issues and energy dependence

PROCEDURES:

Day 1:

- Build students' background knowledge of fracking. Access *Global Issues in Context* and search fracking to view the topic page. Have students click the **Read More** button to read the topic overview. Then, ask them to explore additional sources like Viewpoints and Reference from the Fracking topic page. Have students use the **Highlights and Notes** tool to mark key information, and then download or send their sources to Google Drive or Microsoft OneDrive.
- Based on students' initial research, discuss key concepts and controversies surrounding fracking.
 - What is fracking (define in your own words)?

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- What has led to an increase in interest in natural gas?
- What areas of the country are favorable for fracking?
- Who are some of the Key Figures in the fracking debate?
- What are some of the key global impacts and important developments?
- Hand out index cards and ask students to write down whether they are PRO (for) or CON (against) fracking. They must include a reason to support their choice.
- Designate one area for all students who are PRO and another for those who are CON to meet.
- Have students take their card, meet with their PRO/CON groups, and share their reasoning.
- Gather reasons from both groups, and create a class PRO/CON list to be used in the Town Hall Meeting.

Day 2:

- Share the Town Hall scenario. Students will be members of a town where an oil company would like to engage in fracking. Students will select or be assigned roles and must research the corresponding position.
 - Oil company representatives
 - Environmental scientists in favor of fracking
 - Environmental scientists against fracking
 - Property owners
 - Lawyers protecting the rights of the property owners
 - Lawyers protecting the rights of the oil company
 - Local politicians
 - Additional roles as needed
- Ask students to use *Global Issues in Context* to research how fracking will impact the community and prepare for their role in the Town Hall. Students should use the Argument Worksheet to compile their notes.
- Allow at least one class period for research.

Day 3-4:

- Moderate the Town Hall Meeting or appoint a student as Mayor to lead the discussion/debate.
 - Invite each student group to state their position and provide evidence as to how fracking will help or hurt the town.
 - Give each student group the opportunity to answer questions from opposing groups.
- After each group has presented their evidence, ask students to use the Fracking Ballot to vote based upon all evidence presented at the meeting. Students are free to vote outside of their role in the meeting.
- Post the initial PRO/CON list created by the students as an aid.
- Tally the votes and share the town's decision to allow or not allow fracking in their community.

RELATED ACTIVITIES:

Research how lobbyists and politicians manipulate energy policy in America.

Research how groups on both sides of fracking sway public opinion with celebrities, emotional appeals, etc.

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Argument Worksheet

Playing the Devil's Advocate

Write your argument in the space below:

Think of some questions and concerns that cast doubt on your argument. List them here:

Now, think of ways to respond to these questions and concerns. Write your responses here:

Rewrite your argument in the space below. Boost its strength by building your responses into it.

Getting Your Arguments in Order

List three good arguments you can use in your report:

(1) _____

(2) _____

(3) _____

Evaluate your arguments. List them in order from strongest to weakest:

(Strongest) _____

(Second-strongest) _____

(Weakest) _____

Now, list your arguments in the order you plan to use them in your report:

(Strongest) _____

(Weakest) _____

(Second-strongest) _____

Town Hall Meeting Assignment Rubric

	Criteria				Points
	4	3	2	1	
Preparation	Student is fully prepared and has researched fracking extensively	Student is somewhat prepared and is familiar with the topic	Student is poorly prepared and is vaguely familiar with the topic	Student is unprepared and unfamiliar with the topic	
Active Participation	Student fully participates in town hall meeting	Student somewhat participates in town hall meeting	Student rarely participates in town hall meeting	Student does not participate in town hall meeting	
Effective Argument	Comments frequently help to progress the discussion	Comments mostly help to progress the discussion	Comments sometimes help to progress the discussion	Comments do not help to progress the discussion	
Roleplay	Student fully embodies assigned role and models argument accordingly	Student embodies assigned role but does not model argument accordingly	Student barely embodies assigned role and does not model argument accordingly	Student does not embody assigned role	
Total					

Teacher Comments:

Town Hall Meeting

Fracking Ballot

Name:

Date:

Circle **YES** or **NO** to indicate whether you support fracking in our town. Write your rationale in the box below.

YES

NO

Town Hall Meeting

Fracking Ballot

Name:

Date:

Circle **YES** or **NO** to indicate whether you support fracking in our town. Write your rationale in the box below.

YES

NO