

| Title:  | How Safe is Oil and Natural Gas Drilling for Our Environment? |                          |  |
|---------|---|--------------------------|--|
| Author: | Shirley Kyle<br>Strong High School<br>Strong                  |                          |  |
| Course  | English   | <b>Duration:</b> 10 days |  |
| Grade   | 9   |                          |  |

**Objective:** Students will be able to delineate and evaluate an argument.

# **Summary of Lesson:**

Students will read various documents on both the pros and cons of the effects of the oil and natural gas drilling on the environment. They must then evaluate all evidence presented and take a stand as to their position on the topic.

Standards: Common Core State Standards, Arkansas State Frameworks,

| CODE   | STANDARD  |  |
|--------|---|--|
| RI.9.8 | Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.  |  |
| RI.9.1 | Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.   |  |
| W.9.1  | Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.  a. Introduce precise claim(s), distinguish the claims from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.  b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.  c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and |  |



- evidence, and between claim(s) and counterclaims.
- d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- e. Provide a concluding statement or section that follows from and supports the argument presented.

# **Teacher Excellence Support System (TESS):**

#### Domain 1:

- Demonstrating knowledge of content and pedagogy
- b. Demonstrating knowledge of students
- c. Setting instructional outcomes
- d. Demonstrating knowledge of resources
- e. Designing coherent instruction
- f. Designing student assessments

# **Instructional Strategies and Practices:**

Discussion, identifying similarities and differences, summarizing/note-taking

Bloom's Level: Highest Level Only

Evaluate

#### **Materials and Resources:**

Laptops or cell phones (Depending on available technology and school's cell phone policy.)

Chart paper

Markers

Projection device

Student Handout 1: How Safe Is Oil and Natural Gas Drilling? -- Task Sheet

Student Handout 2: How Safe Is Oil and Natural Gas Drilling? -- Argument Rubric Student Handout 3: How Safe Is Oil and Natural Gas Drilling? -- Graphic Organizer

www.essaywritinghelp.com/argumentative.htm

http://www.schoolimprovement.com/docs/Common%20Core%20Rubrics Gr9-10.pdf

www.issuu.com/aipro/docs/arkansasoilandgasbook

 $\frac{http://schools.nyc.gov/Academics/CommonCoreLibrary/TasksUnitsStudentWork/NewMediaEss}{ay.htm}$ 

Harvey, S. & Goudvis, A. (1999). Determining Importance in Text The Nonfiction Connection. *Strategies That Work* (pp. 138-139). Portland, Maine: Stenhouse Publishers



#### **Formative Assessment**

Collaboration work, daily work leading to final draft

#### **Notes to Teacher:**

For students with 504s or IEPs more individualized instruction will be given according to their written plans.

#### **Student Activity**

#### Day 1:

#### **Materials**

- Student Handout 1: How Safe Is Oil and Natural Gas Drilling? -- Task Sheet
- Student Handout 2: How Safe Is Oil and Natural Gas Drilling? -- Argument Rubric
- Chart paper
- Markers

#### **Directions**

1. Introduction: (This introduction is to be read to students to familiarize them with the lesson content and purpose. **The statement may need modification** to reflect the importance of the oil and natural gas industry in the local school community.)

"Argumentative writing is nothing new to you. This year we are going to use what you have already learned and advance our argumentative writing skills to giving fair representation to counterclaims (opinions opposite your own).

We are going to research a topic that is very relevant to our region (oil and natural gas drilling). After you perform your research you will write an argumentative essay expressing your argument for or against "How Safe is Oil and Natural Gas Drilling for Our Environment?"

The oil and natural gas industry is nothing new to Arkansas. In many parts of the state you can see the remnants of exploration or drilling from years past. Now with new technology, the oil and natural gas industry has returned to drill deeper into the earth's surface to recover these resources."

Your job is to present a valid argument as to the effects of drilling on our environment. You must present information and evidence supporting both your claim and the counterclaim. It is not your job to persuade the reader to accept your point-of-view but to give the reader enough valid information for them to make their own decisions. Before you begin, review "How to Write an Argumentative Essay" at:

www.essaywritinghelp.com/argumentative.htm.



#### Vocabulary

Claim – an opinion open to challenge Counterclaim – an opposing opinion

2. Hand out a copy of the task: (See **Student Handout 1** which follows this lesson.)

"Your task is to research the effects of oil and gas drilling on the environment and write an argumentative essay. You will need at least three arguments and counterarguments. You must have evidence from your sources, document these resources, and provide a reference sheet."

- Hand out a copy of the grading rubric or display the rubric on the classroom screen... Use the rubric from <a href="http://www.schoolimprovement.com/docs/Common%20Core%20Rubrics\_Gr9-10.pdf">http://www.schoolimprovement.com/docs/Common%20Core%20Rubrics\_Gr9-10.pdf</a> (See Student Handout 2 which follows this lesson).
- 4. At this point students will get into cooperative groups (responsibilities for the members of the group may be assigned or students may decide recorder, reporter, time-keeper, etc.)

Each group will translate the assigned task into their own words (see **Student Handout 1**) and will be assigned a portion of the rubric to translate into their own words (see **Student Handout 2**). The recorder will write the group's translation on chart paper to be displayed for the class. The reporter for the group will share the translation. The recorder will make any changes after the class discussion.

- 5. Groups will present their translations of the assigned task and rubric and reach a consensus
- 6. **Evaluation** for the day will be the consensus of the groups' translations.

#### Day 2:

#### **Materials**

Laptops

**Projection devices** 

Student Handout 3: How Safe Is Oil and Natural Gas Drilling? Graphic Organizer

# **Directions**

1. Quickly review the task and the posters from the previous day.



- 2. Review the instructions for making citations and the reference page.
- 3. Explain that students will use the following note-taking graphic organizer (*Strategies That Work* 138-139). For each claim, the student will need a counterclaim that mirrors that claim. The graphic organizer is included at the end of the lesson as **Student Handout 3**

| Evidence For | Evidence       | Personal Opinion |
|--------------|----------------|------------------|
| (Claim)      | Against        |                  |
|              | (Counterclaim) |                  |
|              |                |                  |
|              |                |                  |

- 4. Model for the students how to use this graphic organizer by using the article on page 138 of *Strategies That Work* or any article of current events. Make sure you have students document where they got their evidence for the citations and reference page.
- 5. Help students begin their research by building some background knowledge. Have students go to the following web page on their laptops as it is displayed on the classroom screen.

www.issuu.com/aipro/docs/arkansasoilandgasbook

- 6. Go through this book talking about what is happening in the oil and natural gas industry. Stress to students that they need at least three arguments and counterarguments to include in their essay. Give students several of the above graphic organizer sheets for note-taking and let them begin their work.
- 7. **Evaluation** of today's work will be the evidence sheets in the students' folders.

### **Day 3:**

#### **Materials**

Laptops

Graphic organizer from Day 2

#### **Directions**

- 1. Continue research and documentation
- 2. **Evaluation** of today's work will be the evidence sheets in the students' folders.



#### Day 4:

#### Materials

**Projection devices** 

#### **Directions**

- 1. Today students will begin writing the introduction to their essay. Students will use their projection devices to review the rubric provided on Day 1
- 3. Have students work independently on their introduction and then let students get into groups and read their introductions aloud for feedback. Students should listen for claims and counterclaims.
- 4. **Evaluation** of today's work will be introductory paragraphs placed in students' folders.

#### Day 5:

#### **Materials**

**Projection devices** 

### **Directions**

- 1. Use the website from Day 4. Show how the student addressed the claims and counterclaims.
- 2. Have students work independently to write.
- 3. **Evaluation** of today's work will be the beginning of the body of essay.

#### Day 6:

#### **Directions**

1. Use the website from Day 4 to show how to conclude the essay.



- 2. Continue writing the body of the essay and work on the conclusion.
- 3. **Evaluation** of today's work will be the completion of the body of essay and conclusion.

# **Day 7**:

#### **Directions**

- 1. Finish paper including citations and reference page. Begin revising and editing.
- 2. **Evaluation** of today's work will be the completion of the rough draft.

#### Day 8:

#### **Directions**

- 1. Students will get into groups. Each person will read their paper and get feedback from the group.
- 2. **Evaluation:** The group will listen to see that there are three arguments for and three arguments against. Make sure the arguments for and against mirror each other. They will also look at the paper to see if citations and quotations are included.

# **Day 9**:

#### **Directions**

- 1. Begin final draft of essay.
- 2. Evaluation: Significant progress on the essay

# **Day 10**

#### **Diretions**

- 1. Finish final essay and turn in by the end of the class.
- 2. **Evaluation:** The teacher will use the rubric introduced on Day 1 to evaluate the essay.



#### References:

www.essaywritinghelp.com/argumentative.htm

http://www.schoolimprovement.com/docs/Common%20Core%20Rubrics Gr9-10.pdf

www.issuu.com/aipro/docs/arkansasoilandgasbook

http://schools.nyc.gov/Academics/CommonCoreLibrary/TasksUnitsStudentWork/NewMediaEssay.htm

Harvey, S. & Goudvis, A. (1999). Determining Importance in Text The Nonfiction Connection. Strategies That Work (pp. 138-139). Portland, Maine: Stenhouse Publishers

**Student Handouts: (**Printable copies of the handouts are available at:

http://www.arkansasenergyrocks.com/educators/index.html. (Select Curriculum, then 9-12 Lesson Plan – student handouts accompany each lesson plan.)

# Student Handout 1 How Safe Is Oil and Natural Gas Drilling Task Sheet

Your task is to research the effects of oil and natural gas drilling on the environment and write an argumentative essay. You will need at least three arguments and counterarguments. You must have evidence from your sources, document these resources, and provide a reference sheet.

Rewrite the task in your own words. Contribute your ideas during group work.



# Student Handout 2 | How Safe Is Oil and Natural Gas Drilling | Argument Rubric

Go to: http://www.schoolimprovement.com/docs/Common%20Core%20Rubrics\_Gr9-10.pdf

- Record the portion of the rubric assigned to your group.
- Rewrite the rubric in your own words. Share your ideas during group work.

| Argument   |   |   |  |   |  |
|--|---|---|--|---|--|
| Description  | 5 Exceptional   | 4 Skilled   | 3 Proficient   | 2 Developing  | 1 Inadequate   |
| Claim: The text introduces a clear, arguable claim that can be supported by reasons and evidence.  | The text introduces a compelling claim that is clearly arguable and takes a purposeful position on an issue. The text has a structure and organization that is carefully crafted to support the claim.  | The text introduces a precise claim that is clearly arguable and takes an identifiable position on an issue. The text has an effective structure and organization that is aligned with the claim.   | The text introduces a claim that is arguable and takes a position. The text has a structure and organization that is aligned with the claim.   | The text contains an unclear or emerging claim that suggests a vague position. The text attempts a structure and organization to support the position.                            | The text contains an unidentifiable claim or vague position. The text has limited structure and organization.  |
| Development: The text provides sufficient data and evidence to back up the claim as well as a conclusion that supports the argument.   | The text provides convincing and relevant data and evidence to back up the claim and effectively addresses counterclaims. The conclusion strengthens the claim and evidence.  | The text provides sufficient and relevant data and evidence to back up the claim and addresses counterclaims fairly. The conclusion effectively reinforces the claim and evidence.  | The text provides sufficient data and evidence to back up the claim and addresses counterclaims. The conclusion ties to the claim and evidence.  | The text provides data and evidence that attempts to back up the claim and unclearly addresses counterclaims or lacks counterclaims. The conclusion merely restates the position. | The text contains limited data and evidence related to the claim and counterclaims or lacks counterclaims. The text may fail to conclude the argument or position. |
| Audience: The text anticipates the audience's knowledge level and concerns about the claim. The text addresses the specific audience's needs.  | The text consistently addresses the audience's knowledge level and concerns about the claim. The text addresses the specific needs of the audience.   | The text anticipates the audience's knowledge level and concerns about the claim. The text addresses the specific needs of the audience.  | The text considers the audience's knowledge level and concerns about the claim. The text addresses the needs of the audience.  | The text illustrates an inconsistent awareness of the audience's knowledge level and needs.   | The text lacks an awareness of the audience's knowledge level and needs.   |
| Cohesion: The text uses words, phrases, and clauses to link the major sections of the text, creates cohesion, and clarifies the relationships between the claim and reasons, between reasons and evidence, and between claims and counterclaims. | The text strategically uses words, phrases, and clauses to link the major sections of the text. The text explains the relationships between the claim and reasons as well as the evidence. The text strategically links the counterclaims to the claim. | The text skillfully uses words, phrases, and clauses to link the major sections of the text. The text identifies the relationship between the claim and reasons as well as the evidence. The text effectively links the counterclaims to the claim. | The text uses words, phrases, and clauses to link the major sections of the text. The text connects the claim and reasons. The text links the counterclaims to the claim.                | The text contains limited words, phrases, and clauses to link the major sections of the text. The text attempts to connect the claim and reasons.                                 | The text contains few, if any, words, phrases and clauses to link the major sections of the text. The text does not connect the claims and reasons.                |
| Style and Conventions: The text presents a formal, objective tone that demonstrates standard English conventions of usage and mechanics along with discipline specific requirements (i.e. MLA, APA, etc.).                                       | The text presents an engaging, formal and objective tone. The text intentionally uses standard English conventions of usage and mechanics along with discipline-specific requirements (i.e. MLA, APA, etc.).  | The text presents an appropriate and formal, objective tone. The text demonstrates standard English conventions of usage and mechanics along with discipline specific requirements (i.e. MLA, APA, etc.).   | The text presents a formal, objective tone. The text demonstrates standard English conventions of usage and mechanics along with discipline specific requirements (i.e. MLA, APA, etc.). | The text illustrates a limited awareness of formal tone. The text demonstrates some accuracy in standard English conventions of usage and mechanics.                              | The text illustrates a limited awareness or inconsistent tone. The text illustrates inaccuracy in standard English conventions of usage and mechanics.             |

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# Student Handout 3 How Safe Is Oil and Natural Gas Drilling Graphic Organizer

| Evidence For (Claim) | Evidence Against (Counterclaim) | Personal Opinion |
|----------------------|---------------------------------|------------------|
|                      |                                 |                  |
|                      |                                 |                  |