

**Objective (See *Learning Standards 22-25.*)**

Students will be able to evaluate, analyze, and synthesize research in the area of renewable energy. Using newly acquired skills in research techniques and essay writing, students will be able to produce a college-level essay. Students will be able to weigh various points of view to offer a balanced analysis of an issue related to renewable energy. Students will demonstrate a fundamental knowledge of the principles of research as delineated in the Modern Language Association's guidelines.

**Framework****Principles of Research**

Understand various techniques of researching a topic.

1. What is the difference between primary and secondary research?
2. What is plagiarism?
3. How is source material synthesized?
4. What are three styles of parenthetical citation?
5. What is a Works Cited page?
6. What is a Works Consulted page?

Determine reliable sources.

1. Is everything on the Internet true?
2. Can an author's point of view lack objectivity?
3. How are facts such as statistics gathered?

Organize the sources.

1. What is a thesis statement?
2. How are outlines and graphic organizers useful in source gathering?
3. How are note-taking and highlighting used?

Write the draft and final product.

1. What should the lead paragraph contain?
2. When should information be parenthetically cited?
3. Where is there room for opinion?
4. What is the difference between editing and revising?

2.

5. Where can one find information about the Works Cited page, cover page, pagination format, et cetera?

### **Materials**

1. Text book
2. Prior lecture and in-class practice material
3. Computer lab
4. Preliminary magazine articles and United Streaming video on renewable energy
5. MLA and Easybib.com web sites displayed on the Smart Board

### **Homework**

1. Practicing assignments on formatting cover pages, works cited page, etc.
2. Note-taking from sample articles: summarizing and paraphrasing
3. Writing sample lead paragraphs: pointed thesis statement v. discursive openings
4. Gathering sources
5. Drafting and revising techniques
6. Practicing grammar lessons appropriate to individual class's perceived problem areas (run-on sentences, verb tense consistency, paragraphing)

### **Assessments**

The final product is a well-written research essay (5-10 pages) presented in MLA approved format. Minor assessments along the way include various class and homework assignments and quizzes and tests based on the lecture material.

**Objective (See Learning Standards 26-28.)**

The research essay assignment described above can be expanded to include the following objectives as provided in the Media Strand, Learning Standards 26-28: “Students will obtain information by using a variety of media and evaluate the quality of material they obtain. Students will explain how the techniques used in electronic media modify traditional forms of discourse for different aesthetic and rhetorical purposes. Students will design and create coherent media productions with a clear controlling idea, adequate detail, and appropriate consideration of audience, purpose, and medium.”

**Framework****Principles of Electronic Research**

Understand the importance of electronic media and the ways to use media for research and life-long learning.

[See previous anticipation/starter/quiz questions listed under **Principles of Research and Materials.**]

**Homework**

1. Consult the TV channel guide for competing news station outlets. Follow one national news story. Compare and contrast the content, emphasis, placement of the story within the broadcast, pictures, anchor’s delivery, et cetera.
2. Compare one national story as covered by NPR programs on *The World* or *All Things Considered* with coverage by a local radio station.
3. *Google* sites related to commentary on the above stories.
4. *Google* sites related to renewable energy topics.

**Assessments**

The final product is a power point or audio/visual presentation, independent or in addition to the aforementioned research essay.

## 4.

### **Renewable Energy Persuasive Essay**

**Bartelloni-Kedski**

#### **Objective (See *Learning Standards 19-25.*)**

Students will build upon their knowledge of research techniques and essay writing by producing a persuasive essay on some aspect of renewable energy or the energy crisis. The paper will then be presented as a speech to the class. Students with opposing views will present their papers and join in questions and answers from each other and the class.

#### **Framework**

##### **Principles of Persuasive Discourse**

Understand the principles of persuasive writing and speaking.

1. How does one persuade an audience?
2. How are the weak spots in an argument presented?
3. How does one handle the opposition?
4. What is “a fair fight?”

Determine reliable sources.

1. Is everything on the Internet true?
2. What is subjectivity?
3. Can a reporter’s point of view lack objectivity?
4. Does it matter who underwrites a study?
5. Why does it matter what the opposition thinks?

Organize the sources.

1. What is a thesis statement?
2. How are outlines and graphic organizers useful in source gathering?
3. How are note-taking and highlighting used?

Write the draft and final essay/speech.

1. What should the opening do?
2. When do the strongest and weakest points in the essay appear?
3. When is the opposing view presented?
4. Why should the opposing view be presented fairly?
5. How is “preaching to the choir” different from persuading an audience?
6. How are sources acknowledged in a speech?
7. What should the conclusion contain?
8. Why are tone and diction important?

### **Materials**

1. Text book chapters on persuasive writing, editing, and revising
2. Lecture information.
3. John Stuart Mill's *On Liberty* (excerpts regarding free speech)
4. Computer lab
5. Periodicals and United Streaming video access
6. MLA and Easybib.com displayed on Smart Board

### **Homework**

1. Practicing assignments on formatting cover pages, works cited page, etc.
2. Note-taking from sample articles: summarizing and paraphrasing
3. Writing sample lead paragraphs
4. Writing samples of varied tones and diction
5. Gathering sources
6. Editing and revising techniques using previously filed compositions
7. Public speaking exercises

### **Assessments**

The final products are a well-written persuasive essay and an oral presentation. Points may be given for those who participate in the optional debate. Minor assessments along the way include various homework and class work assignments and quizzes and tests based on the lecture material.

**Objective (See *Learning Standard 20.*)**

Students will use their knowledge of business letter format to write sample letters to newspaper editors and legislators regarding renewable energy issues.

**Framework****Formal Letter Writing**

Understand the form, content, and tone of formal letter writing.

1. What is meant by tone?
2. What is the difference between colloquial and formal usage?
3. How would an email to a friend differ from a letter to a congressman?

Get the facts.

1. How would the correctness of facts be verified?
2. How should the opposing view be included?

Write the draft and final letter

1. What form should the letter take?
2. How is the envelope addressed?
3. What is *invective* and why isn't it an effective persuader?

**Materials**

1. Textbook unit on letter writing and sample handouts
2. Computer lab
3. Periodicals (emphasis on letters to the editor)

**Homework**

1. Assign researching energy topics and forming an opinion.
2. Write a sample letter advocating legislative action.
3. Write a letter of complaint.
4. Write a letter of inquiry.

## Assessments

The final products are sample letters of the above to be stored in their portfolios or writing folders. Each letter is a Type 5 (John Collins designation) publishable piece of writing. Properly addressed envelopes are included with each letter.

### Renewable Energy Technical Vocabulary Development

Bartelloni-Kedski

Objective (See *Learning Standards 4, 8, 9.*)

Students will improve their vocabulary through the study of technical terms found in renewable energy periodicals and web sites. Students will learn a variety of strategies for decoding the meanings of new words essential to the understanding of technical and scientific articles.

### Framework

#### Technical Vocabulary Development

“Acquire and use correctly an advanced reading vocabulary of English words, identifying meanings through an understanding of word relationships” (*Standard 4*).

1. How is a new word’s meaning revealed in the sentence it is in and those around it?
2. What is meant by a *context clue*?
3. What advantages does a printed dictionary have over on-line dictionaries such as *dictionary.com*?
4. What is a glossary?

Use newly acquired technical vocabulary in speaking and writing.

1. How are technical words defined for the lay person within an article?
2. What are metaphors, similes, and analogies?
3. How are they helpful in explaining technical terms?
4. What is technical jargon?
5. How can it be avoided or explained?

8.

Identify basic facts and important ideas in technical writing.

1. How does an anticipation guide help in understanding a technical article?
2. What can be done to maintain focus while reading?
3. What planning, monitoring, and assessing strategies are effective?

### **Materials**

1. Renewable energy periodicals and web sites
2. Lecture notes

### **Homework/Class Work**

1. Compile a list of technical terms from several sample articles.
2. Divide a paper into two columns, one headed "Guess" and the other "Definition." Given any context clues in the sentence, write the guessed definition in the Guess column. Use a dictionary to find the actual definition that best fits the sense of the sentence. Write it in the Definition column.
3. Design a matching quiz using the above list.
4. Use the technical terms in a list of original metaphors, similes, and analogies.
5. Paraphrase and/or summarize selected articles. Underline the technical vocabulary terms.

### **Assessments**

Students will submit the above reinforcement assignments for quiz-level grades. Their summaries and paraphrasings will demonstrate their assimilation of the terms. A vocabulary test will conclude the unit.

## Renewable Energy Fiction

Bartelloni-Kedski

**Objective** (See *Learning Standards 10, 11, 12, 15.*)

Students will conclude their study of the short story genre by writing an original story applying the elements of story writing to a theme found in renewable energy articles. Energy topics are especially applicable to science and speculative fiction stories.

### Framework

#### The Short Story and Renewable Energy

Understand the short story genre.

1. What is a short story?
2. What is meant by *conflict*?
3. What is meant by *rising action* or *complications*?
4. What is meant by *climax*?
5. What is meant by *falling action* or *denouement*?
6. How does an author make characters seem realistic?
7. What is meant by *characterization*?
8. What is meant by *theme*?

### Materials

1. Short story anthology
2. Renewable energy periodicals and web sites

### Homework/Class Work

1. Readings
2. Various assignments practicing such elements as setting, tone, diction, characterization techniques
3. Plot outline, story board, graphic organizer
4. Rough draft

### Assessments

The final product is a well-written, original short story based on a theme drawn from their study of renewable energy and energy crisis issues. Minor assessments include the above home/class work and quizzes based on the anthology readings.