

# Lesson Plan for Middle School Science

## *Analogical Guide*

(Note: See *Literacy and Learning, Analogical Guides and Feature Analysis* video lesson for an illustration of this lesson in action.)

**Topic:** Energy

**Objectives:** The student will...

1. associate new science-related vocabulary about energy by analogy
2. define new vocabulary using clues from analogies
3. read the content area reading text using the analogical guides during text reading
4. use analogies to comprehend and recall concepts

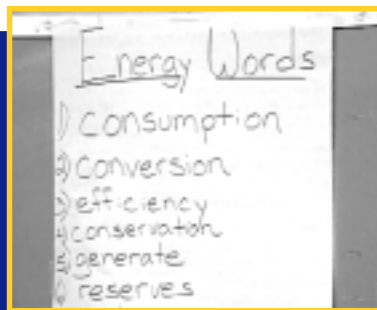
**Set Induction:** The teacher explains to the students that the use of analogical guides helps students understand new concepts and terminology by creating analogies that they can relate to known concepts and terms as they read the content area texts about their new topic of study on energy. Offer some examples.

**Procedures:**

1. Begin lesson by explaining to students that it is necessary to use some common terminology when discussing different forms of energy. List these new terms on the board and suggest to the students that they compare words such as *producer* and *consumer* to features of eating in a restaurant.
2. Use dictionaries and/or textbooks to define the rest of the words, then ask students to work in groups to come up with analogies based on the restaurant model for all words. After about ten minutes, each group shares its analogies with the rest of the class. Suggestions are listed on the analogical guide chart for the whole class and copied into individual science notebooks.
3. Summarize the use of analogical guides to learn new terminology by explaining that students can use the analogies on the right side of the chart to comprehend and recall the meaning of each new concept or vocabulary word on the left.

**Closure:**

As the class period comes to a close, the teacher may ask the students to use the analogical guide to assess their understanding of new concepts. Students will be



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asked to use analogies as they encounter other new concepts and consider this strategy for other new concept learning.

**Evaluation Suggestions:**

1. At the end of the energy unit, students will be tested on comprehension of vocabulary words.
2. Students will apply their knowledge of new terminology by using it in writing energy reports.

**Resources and Materials:**

Per student:

- Science notebook
- Pen or pencil
- Dictionary
- Science textbook

Per class:

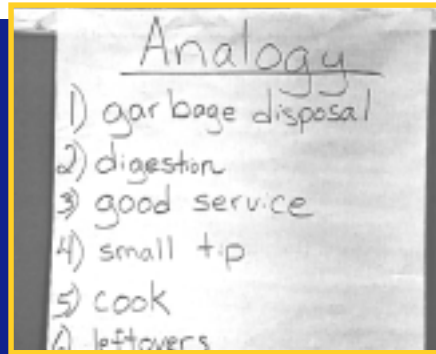
- Chalkboard or overhead with vocabulary words listed
- Chalk or overhead markers

**Other Applications:**

This vocabulary strategy is easily integrated into instruction for any content area. Glossary words from the textbook can be used to create analogical guides. The strategy offers students a different way to explore word meanings and practice new terminology in context. Answers may be provided, making the activity easier to complete. However, allowing students to come up with their own answers opens the door for small or large group discussion.

Analogies can be confusing and difficult for students who have not had opportunity to work with them before. Provide simple examples and model the use of analogies with students before asking them to engage in divergent thinking.

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