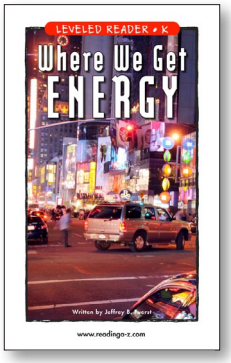
Lesson Plan

Where We Get Energy



About the Book

Text Type: Nonfiction/Informational **Page Count:** 18 **Word Count:** 486

Book Summary

Where We Get Energy gives readers an informative lesson in where our energy comes from. The book reviews how we use energy, which types of energy we use, and where each energy type is found. Clear, easy-to-understand photographs enhance the text.

About the Lesson

Targeted Reading Strategy

- Ask and answer questions

Objectives

- Use the strategy of asking and answering questions to understand text
- Identify main idea and details
- Manipulate medial sounds
- Identify long /e/ digraphs
- Identify and use plural verbs
- Categorize content vocabulary

Materials

Green text indicates resources available on the website

- Book—*Where We Get Energy* (copy for each student)
- Chalkboard or dry erase board
- Chart Paper
- Main idea and details, long /e/ digraphs, vocabulary worksheets
- Discussion cards

Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting the book on interactive whiteboard or completed with paper and pencil if books are reused.)

Vocabulary

- **Content words:** *coal, dams, electricity, energy, gasoline, generator, natural gas, oil, power plants, solar cells, solar panels, steam*

Before Reading

Build Background

- Ask students why they need to eat food every day. Lead the discussion to the topic of energy and confirm that we get our energy from the food we eat.
- Ask students to identify other things for which we need energy (heat, transportation, electricity).
- Create a large KWL chart on chart paper. Have students tell you what they know about energy, and record this information in the first column on the chart.

Preview the Book

Introduce the Book

- Show students the front and back covers of the book and read the title with them. Ask what they might read about in a book called *Where We Get Energy.* (Accept any answers students can justify.) Have them tell you what the front and back photos have to do with energy.
- Show students the title page. Discuss the information on the page (title of book, author's name).

Introduce the Reading Strategy: Ask and answer questions

- Discuss with students how using prior knowledge and asking questions about a topic can help readers understand and remember information in a book.
- **Think-aloud:** *When I look at the table of contents on page 3, I see a section titled* "Energy from Gasoline." *I know that people use gasoline to power their cars. I wonder where gasoline comes from. I'm going to write that question on the chart. Asking questions helps me focus on what I'm reading and gives me a purpose for reading the book.*
- Have students preview the rest of the book, looking at photos, the table of contents, and the glossary. Write additional questions they have on the class KWL chart.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

Introduce the Vocabulary

- Reinforce new vocabulary by incorporating it into the discussion of the pictures. For example, on page 9 you might say: *This picture shows us how they make electricity. This is a picture of generators.*
- Model the strategies students might use to work out words they don't know. Ask: *Can someone find the word* generator *in the sentences on this page? How do you know the word is* generator? *Let's read the sentence it is in and see if it makes sense.*

Set the Purpose

- Have students read the book to find answers to the questions on the KWL chart.

During Reading

Student Reading

- **Guide the reading:** Give students their copy of the book. Ask them to place a finger on the page number at the bottom corner of the page. Have them read to the end of page 7. Tell students to reread the pages if they finish before everyone else.
- Model asking and answering questions.
  Think-aloud: *I wanted to know where gasoline comes from. I learned that gasoline comes from oil underground. Wells pump oil from the ground. I'll write what I learned under the* L *heading of the class KWL chart. The book says that energy heats our homes and also moves cars, planes, and trains. I wonder if the energy that heats our homes is the same as the energy that cars run on. I'll write this question under the* W *heading of the class KWL chart.*
- Ask students if any of the questions on the KWL chart have been answered. Ask if they have any other questions. Write this information on the class KWL chart.
- **Check for understanding:** Have students read to the end of page 11. Have them share answers they found while reading. Write these answers on the class KWL chart. Invite them to share additional questions they generated as they read the book.
- Have students read the remainder of the book.

   Have students make a question mark in their book beside any word they do not understand or cannot pronounce. Encourage them to use the strategies they have learned to read each word and figure out its meaning.

After Reading

- Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

Reflect on the Reading Strategy

- **Think aloud:** *I wanted to know if gasoline also heated people's homes. I did not find the answer to this question. I can go to the library to find a book that answers this question.*
- Ask students whether asking questions about the book helped them read and understand the book. Reinforce how asking questions helped them be active readers. Refer to the KWL chart on the board and have students provide you with any answers that they found while reading the book. Write the answers in the third column *(L)* and tell students that they can do more research to find the answers to any questions that were not answered in the book.

Teach the Comprehension Skill: Main idea and details

- Explain that every book has a big idea, which is the most important thing the book is about. The details tell important things about the main idea. Point out that sometimes the amount of information about a topic is so large that the information is grouped into sections, each section with its own main idea.
- Make an overhead transparency of the main-idea-and-details worksheet or draw it on the board. Model finding the main idea of the section "Energy from Food" and writing it on the tree diagram. **Think-aloud:** *The main idea is the most important idea that the section is trying to communicate. Often, the main idea is also the title of the section. In this book, each section tells us about one kind of energy. The first section that begins on page 6 tells me about energy from food. I will write* food energy *in the first small box. I have to go into the section and find the most important details about energy from food to write in the bigger box. I don't have lots of room, so I have to choose only the most important things. There is a sequence described here. I will write it like this:* People get energy from plants and animals. Animals get energy from plants. Plants make energy from sunlight. *This is all I need to write to help me remember the details.*

  Check for understanding: Guide students to find the main idea of the next section: "Energy from Gasoline." As students find the relevant details, model writing them on the chart. Discuss the next three sections on gasoline, electricity, and coal. Ask questions such as: *Where does the energy to make electricity come from? Where do oil and coal come from?*
- **Independent practice:** Introduce, explain, and have students complete the main-idea-and-details worksheet. If time allows, discuss their answers.

  Instruct students to use the last page of their book to draw a picture showing one way they use electricity at home or school.

Build Skills

Phonological Awareness: Manipulate medial sounds

- Say the word *wind* (with the short sound, as in moving air) and tell your students you can make a new word by changing the middle sound of the word. Have students listen as you change the short /i/ sound to a long /i/ sound and say the word *wind* (as in to wrap around).
- Repeat the process with the following words: *dam* with short /i/ *(dim); dim* with long /o/ *(dome); gas* with short /e/ *(guess); guess* with long /e/ *(geese); geese* with short /u/ *(Gus).*

Phonics: Long /e/ digraphs

- Write the words *heat* and *sleep* on the board. Ask students to read each word with you and tell you where they hear the long /e/ sound in the words.
- Ask students which letters stand for the long vowel sound in each word: *ea, ee.* Circle these letters. Explain that the letters *ea* and *ee* together stand for the long /e/ vowel sound.

Check for understanding: Have students work with a partner to search the book for words with the long /e/ digraph spelling. Have them underline the words as they find them. When students have finished, have them read the words they found and tell you under which word on the board you should write them.

- **Independent practice:** Introduce, explain, and have students complete the long /e/ digraphs worksheet. If time allows, have students explain their answers.

Grammar and Mechanics: Plural verbs

- Have students turn to page 6 and guide them to find subject and verb pairs on the page. Write these on the board: *you get; plants use; plants store.*
- Have them turn to the next page and find the subject and verb pairs: *cars, trucks, planes, trains get; wells pump; factories change.*
- Explain that when we talk about more than one thing doing something, such as *planes get,* we don't put an *-s* on the end of the verb. When we talk about one thing doing something, like *factories turn,* we put an *-s* on the verb. Explain that the exception is when we use *you* or *I* as in *you eat, I eat.*

Check for understanding: Have students look for other subject/verb pairs in the book and underline them. Have them identify whether the verb ends in *-s* and tell why.

Word Work: Content vocabulary

- Explain to students that they read a lot of words about energy in the book. Identify energy words with students and list them on the board *(coal, electricity, energy, gasoline, generators, oil, solar cells, water, wind).*
- Discuss each word with students and how it relates to energy. Review where we find our sources of energy.
- **Check for understanding:** Show students the pictures from pages 6, 8, 10, 12, and 13 in random order. Cover the text on each page. Have students identify the type of energy in each picture.
- **Independent practice:** Introduce, explain, and have students complete the vocabulary worksheet. If time allows, discuss their answers.

Build Fluency

Independent Reading

- Allow students to read their book independently. Additionally, partners can take turns reading parts of the book to each other.

Home Connection

- Give students their book to take home to read with parents, caregivers, siblings, or friends.

Extend the Reading

Informational Report Writing Connection

Write the following heading on the board: *Ways We Use Energy.* Have students brainstorm ways they can use energy every day. Write their ideas on the board. Have students choose one of the ways and draw a picture of themselves using energy. Then ask them to write about their picture. Bind students' work in a book called *Ways We Use Energy.*

Visit Writing A–Z for a lesson and leveled materials on informational report writing.

Science Connection

Give pairs of students two soda cans. Have them paint one can white and the other can black. Ask students to fill the cans with tap water and record the temperature of the water in each can. Then have them place the cans in direct sunlight for 1–2 hours. Ask students to measure the temperature of the water in each can and compare it to the original temperature. Discuss how the sun's energy

heated the water in the cans. However, black absorbs light energy from the sun, whereas white will reflect it, causing the temperature in the black-colored can to be higher.

Skill Review

Discussion cards covering comprehension skills and strategies not explicitly taught with the book are provided as an extension activity. The following is a list of some ways these cards can be used with students:

- Use as discussion starters for literature circles.
- Have students choose one or more cards and write a response, either as an essay or as a journal entry.
- Distribute before reading the book and have students use one of the questions as a purpose for reading.
- Cut apart and use the cards as game cards with a board game.
- Conduct a class discussion as a review before the book quiz.

Assessment

Monitor students to determine if they can:

- accurately and consistently ask and answer questions to understand text during discussion
- locate main idea and details and organize them on a chart
- orally manipulate medial sounds to create new words during discussion
- recognize that the long /e/ digraph sound can be spelled in various ways during discussion and on a worksheet
- understand when to use plurals verbs during discussion
- understand content vocabulary on a worksheet

Comprehension Checks

- Book Quiz
- Retelling Rubric