Developed as part of the ABCs of Construction National Workplace Literacy Project, this instructional module is designed to help persons in electrical and instrumentation occupations develop strategies for finding the meanings of compound words used in technical writing and the workplace. Presented in the first section is a method for deducing the meaning of compound words by performing the following steps: reading the compound word and finding the two smaller words within it, finding the meaning of the first word, finding the meaning of the second word, and putting the two meanings together. The remainder of the module consists of six exercises in which students are asked to use the four-step procedure to determine the meaning of a total of nine words encountered in the workplace. Each of the nine words is introduced in a brief paragraph on a topic related to some electrical and instrumentation occupation. Each paragraph is followed by a series of questions that guide students through the four-step procedure. (MN)
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1. Writing Frames for Construction Workers (10 exercises)

   for low-level readers; consists of 10 "paragraphs" with open-ended sentences for
   workers to complete and recopy in their notebooks. Topics deal with work and training,
   such as "My Job," "Classroom Behavior," and "Listening to Myself."

2. Writing About Your Craft (10 topics)

   for all students; list of 10 topics, such as "My Boss," "The Main Beef About My
   Job," and "How Work Orders Are Delivered." Used for integrating reading and writing
   in a job-specific context.

3. Building Workplace Vocabulary for E & I: Structural Analysis (80 pages)
   Building Workplace Vocabulary for Millwrights: Structural Analysis (79 pages)
   Building Workplace Vocabulary for Pipefitters: Structural Analysis (79 pages)

   5th grade level; teaches word attack skills for technical terms, utilizing word parts
   and root words; includes hints for retaining meanings by building card file with visual
   representations of terminology.

4. Building Workplace Vocabulary for E & I: General, Specialized, & Technical
   Terms (58 pages)
   Building Workplace Vocabulary for Millwrights: General, Specialized & Technical
   Terms (29 pages)
   Building Workplace Vocabulary for Pipefitters: General, Specialized, & Technical
   Terms (32 pages)

   5th grade level; teaches different kinds of vocabulary words encountered in work-
   related texts; drills for remembering new words; tips for building vocabulary; some
   dictionary use.

5. Building Workplace Vocabulary for E & I: Compound Words (28 pages)
   Building Workplace Vocabulary for Pipefitters: Compound Words (18 pages)
   Building Workplace Vocabulary for Millwrights: Compound Words (22 pages)

   5th grade level; strategies for finding the meanings of compound words used in
   technical writing; works with words in context
6. Improving Listening Skills: Hazards Communication (18 pages)
   Improving Listening Skills: Fire Extinguishers (22 pages)

   a viewing, study guide that accompanies a commercial training video used in the
   required 8-hour OSHA safety course; learning new words, main ideas, and drawing
   conclusions are covered.

7. Measuring Decimals: Millwright (28 pages)

   instruction and application problems

8. Improving Study Skills/Test Taking (60 pages)

   6th grade level; good study skills are needed for success in the ABC Training
   program; explores strategies for organizing class notes and study time; analysis sheet for
   determining weaknesses in test preparation; how to schedule to arrange study time and
   work time

   Computer Program

   "Math for Pipefitters" is an interactive, multi-media program that covers fractions,
   decimals, angles, and right triangle geometry in a pipefitting context (88 screens)
OBJECTIVE: To learn a system for finding the meanings of compound words.

Words are somewhat like electrical components. Both require people for them to be of use. Indeed, they have no purpose until you put them to use. Words, like electrical parts you use in E & I, come in many sizes. They have just as many different purposes. Sometimes, however, one word or one component alone cannot do the work that needs to be done.

Think about the tuner on your radio or television. It is made of an inductor and a coil. Together, they form a capacitor. Together, the two create a new object. This object does different work than the original two.

Sometimes, two words work together to form a new word. This new word means something different from either of the two original words. For example, consider the word *faceplate* in the sentence below:

The worker in-talled each *faceplate* before moving to the next switch.
**Compound Words**

*Faceplate* is an example to two words working as one. Words like this are called **COMPOUND WORDS**. Many compound words appear in your text because they are a part of your field. Thus, you need a way to figure out their meanings. The following steps provide a method for doing so.

**STEP 1:** Read the compound word. Find the two smaller words within it. Sometimes it helps to draw a line between the two.

**STEP 2:** Find the meaning of the first word. Sometimes you will know this. Other times you may need to use a dictionary or ask someone for help.

**STEP 3:** Find the meaning of the second word. Sometimes you will know this. Other times you may need to use a dictionary or ask someone for help.

**STEP 4:** Put the two meanings together. That is, say the first meaning and, without stopping, say the second meaning. This is the meaning of the compound word.
Consider again the sentence containing faceplate. Face is the first of the two words. What does it mean? Face means front. Plate is the second word. It means something that is smooth and flat. What, then, is a faceplate? It is the smooth and flat piece that faces front. You probably knew what faceplate meant when you began reading this lesson. Is this definition like yours? How is it alike? How is it different? The meanings you get when you figure out compound words are not exact ones. Instead, they sometimes give only an idea of what the word means. Often, however, this is all you need to know.
Richard needs to hang a transformer. He knows transformers carry high voltage. Hanging them requires special planning for safety. He finds the following information in his text:

The transformer should be supported by the iron hangers furnished by the manufacturer and hung at the central point on the crossarm, and not out on the arm away from the pole. At the bottom of the hanger, a section of an arm, not longer than the diameter of the pole, should be fastened to the pole with two lag bolts. The transformer can be hung on the bottom arm, if one is in place and supports lines, provided this arm is in the second gain or a lower one. The primary mains feeding the transformer should be on an upper arm.

1. What does crossarm mean to you?
2. Draw a line between the two words that make up the word *crossarm*.

3. Write the first small word on the line below. Then define it by using what you know or with a dictionary.

4. Write the second small word on the line below. Then define it by using what you know or with a dictionary.

5. Now write the two definitions side-by-side.
6. How is the meaning you wrote in #1 like the one you wrote in #5? How is it different?

7. How do the rules for hanging transformers help protect workers and others?
Bob works in a refinery. There, the control room runs the entire place. He has a friend who's an operator in this room. Bob's friend has told him of the transistors which are in the relays. Bob wants to know more about transistors. His text provides the following information:

In place of the electron tube, the transistor has emerged as the cornerstone of modern electronics. Based on the theory of electron conduction in a solid crystalline material rather than in a vacuum or gaseous environment, the transistor not only can perform virtually all the functions formerly associated with the tube, it can do them faster, more cheaply, and more reliably. Moreover, it occupies an very small amount of space and, unlike the tube, requires no power-wasting filament that ties large equipment to the commercial power lines.
1. What does cornerstone mean to you?

2. Draw a line between the two words that make up the word cornerstone.

CORNERSTONE

3. Write the first small word on the line below. Then define it by using what you know or with a dictionary.

4. Write the second small word on the line below. Then define it by using what you know or with a dictionary.
5. Now write the two definitions side-by-side.


6. How is the meaning you wrote in #1 like the one you wrote in #5? How is it different?


7. What modern-day technology could soon replace transistors?


8. What leads you to this conclusion?


Margo wonders why she needs to learn about switchers. She's been told they are too costly to install and operate. She's heard they are only for big jobs like boosting power down the line. She understands the need for learning about switching power supplies when she reads the following:

Switching power supplies, or "switchers," are making rapid inroads into the power market. Compared with linear supplies, they have significant advantages in efficiency, size, and weight. They are, however, more complex and in the past have been considered principally for high-powered applications. With the coming of IC regulators and improvement and cost reductions of other solid state components, the cost-performance tradeoffs are no longer severe even for medium- and low-power requirements. As anticipated, therefore, switching power supplies are rapidly increasing their market share.
1. What does *inroads* mean to you?

2. Draw a line between the two words that make up the word *inroads*.

   **inroads**

3. Write the first small word on the line below. Then define it by using what you know or with a dictionary.

   _____________________________________________

   __________________________
4. Write the second small word on the line below. Then define it by using what you know or with a dictionary.

5. Now write the two definitions side-by-side.

6. How is the meaning you wrote in #1 like the one you wrote in #5? How is it different?
7. What does *tradeoffs* mean to you?

8. Draw a line between the two words that make up the words that make up the word *tradeoffs*.

   TRADEOFFS

9. Write the first small word on the line below. Then define it by using what you know or with a dictionary.
10. Write the second small word on the line below. Then define it by using what you know or with a dictionary.

11. Now write the two definitions side-by-side.

12. How is the meaning you wrote in #9 like the one you wrote in #10? How is it different?
Gillian's boss told her to install lampholders on the outside doors of the plant. She knows they are weatherproof. She isn't sure, however, what type of conductors are safe for attaching the lampholders. A quick reading of her text gives her this information:

*Lampholders* shall be of molded composition or other approved material of the *weatherproof* type, and if they are attached as pendants, they shall have the connections to the circuit wires staggered. If lampholders have terminals, or are of a type that punctures the insulation and makes contact with the conductors, they shall be attached *only* to conductors of the standard type.
1. What does lampholders mean to you?

2. Draw a line between the two words that make up the word lampholders.

L A M P H O L D E R S

3. Write the first small word on the line below. Then define it by using what you know or with a dictionary.
4. Write the second small word on the line below. Then define it by using what you know or with a dictionary.

5. Now write the two definitions side-by-side.

6. How is the meaning you wrote in #1 like the one you wrote in #5? How is it different?
7. What does weatherproof mean to you?

8. Draw a line between the two words that make up the word weatherproof.

WEATHERPROOF

9. Write the first small word on the line below. Then define it by using what you know or with a dictionary.
10. Write the second small word on the line below. Then define it by using what you know or with a dictionary.

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11. Now write the two definitions side-by-side.

_________________________________________________________________

12. How is the meaning you wrote in #7 like the one you wrote in #11? How is it different?

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13. What conclusion can you draw about standard-type conductors?
Gillian now knows she needs to attach the lampholders to standard conductors. She knows the boss wants the lamps outside the refinery doors. All her problems are solved until she seed the door to the control room. There, all sorts of electrical lines enter the building. Her text explains where she needs to install the lampholders:

Locations of lamps for outdoor lighting shall be below all live conductors, transformers, or other electrical equipment, unless clearances or other safeguards are provided for relamping operations or unless the installation is controlled by a disconnecting means which can be locked in the open position.
Building Workplace Vocabulary for E & I Workers

1. What does **outdoor** mean to you?

2. Draw a line between the two words that make up the word **outdoor**.

OUTDOOR

3. Write the first small word on the line below. Then define it by using what you know or with a dictionary.

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Compound Words

4. Write the second small word on the line below. Then define it by using what you know or with a dictionary.

5. Now write the two definitions side-by-side.

6. How is the meaning you wrote in #1 like the one you wrote in #5? How is it different?
7. What does safeguards mean to you?

8. Draw a line between the two words that make up the word safeguards.
9. Write the first small word on the line below. Then define it by using what you know or with a dictionary.

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____________________________________________________________________________

10. Write the second small word on the line below. Then define it by using what you know or with a dictionary.

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11. Now write the two definitions side-by-side.

____________________________________________________________________________

12. How is the meaning you wrote in #7 like the one you wrote in #11? How is it different?

____________________________________________________________________________
13. Why is the placement of lampholders near live wires a concern?

14. Why does placing them below these wires ease this concern?
Mike is wiring a control room. It seems to him that there's too much working space in front of the control panels. He asks Charlie, another electrician, if he agrees. Charlie tells Mike the Code says too little space is a problem. Too much space is not. Mike decides to check this out for himself. His text reads:

The minimum clear working space in front of electric equipment such as switchboards, control panels, switches, circuit breakers, motor controllers, relays, and similar equipment shall not be less than that set forth in the accompanying table unless specified in the Code.
1. What does switchboards mean to you?

2. Draw a line between the two words that make up the word switchboards.

SWITCHBOARDS

3. Write the first small word on the line below. Then define it by using what you know or with a dictionary.
4. Write the second small word on the line below. Then define it by using what you know or with a dictionary.

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5. Now write the two definitions side-by-side.

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6. How is the meaning you wrote in #1 like the one you wrote in #5? How is it different?

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