

CONNECTION TO LANGUAGE ARTS**● The Meaning of Efficiency**

Suppose you are doing research to write a paper. You decide to make a list of topics and then find books at the library that cover each topic. Your friend has another method. She plans to get a few books, start her paper, and return to the library each time she needs more information. Which method is more efficient?

An efficient method is one that saves time, money, or other resources. In our example, your method is probably more efficient. Your friend will most likely find herself making three or four trips to the library. Completing all library research in a single trip, if possible, will save time, making it a more efficient method.

Efficiency Describes How Well Energy Is Used

The word *efficiency* has a similar meaning in describing energy use. An efficient appliance uses less energy than an inefficient one. Because fossil fuels are a non-renewable resource, it is important to use energy wisely. Each year, much energy is wasted by use of inefficient appliances.

Efficient appliances save money for the consumer. For example, it costs much more to run an old, inefficient refrigerator than to run a newer, more efficient model. Over time, the extra cost of running an inefficient appliance could add up to more than the cost of the appliance itself. To inform consumers, the Department of Energy requires a labeling system for many appliances. These labels allow consumers to compare the efficiency of different models of an appliance.

Your Turn to Think

1. What does the word *efficient* mean?
2. How is the common, everyday use of the word *efficiency* similar to its use in describing energy use by appliances?
3. What are two advantages of efficient appliances?
4. Suppose you are buying an oven, choosing from three models. Is the cheapest oven necessarily the best value? Why or why not?