UNIT 10

The Power of Research

RESEARCH WORKSHOPS

• Research Strategies
• Writing Research Reports
How can RESEARCH help me?

Doing research means locating, analyzing, and understanding information in order to answer a question. You may already be skilled at tracking down some types of information, such as movie times and sports statistics. However, there are always new resources to find and ways to improve your search. In this unit, you will learn to find, use, and evaluate sources of information. You will also learn how to improve your ability to search for sources and judge the sources you already use.

**ACTIVITY** What do you research at school, at home, while shopping, or while doing homework? Work with a partner to list examples.
Included in this unit: W1.1, W1.2, W1.3, W1.4, W1.5, W1.6, W2.3, LS1.6, LS2.3

<table>
<thead>
<tr>
<th>DEVELOPING RESEARCH SKILLS</th>
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<tr>
<td>• Find and narrow a topic</td>
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<td>• Search the Internet</td>
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<tr>
<td>• Use library and media center resources</td>
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<tr>
<td>• Choose primary and secondary sources</td>
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<tr>
<td>• Evaluate information and sources, including nonfiction books, periodicals, and Web sites</td>
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<td>• Conduct your own research</td>
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<tr>
<th>WRITING</th>
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<tr>
<td>• Write a research report</td>
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<tr>
<td>• Narrow your research topic</td>
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<tr>
<td>• Locate and evaluate sources</td>
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<td>• Take notes</td>
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<td>• Make source cards</td>
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<td>• Summarize and paraphrase</td>
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<tr>
<td>• Quote directly and avoid plagiarism</td>
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<td>• Document sources</td>
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<td>• Prepare a Works Cited list</td>
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<td>• Format your paper</td>
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<tr>
<th>SPEAKING, LISTENING, AND VIEWING</th>
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<td>• Make a research presentation</td>
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<tr>
<th>ACADEMIC VOCABULARY</th>
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<tr>
<td>• research topic</td>
<td>sources</td>
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<td>• research report</td>
<td>source cards</td>
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<td>• resources</td>
<td>plagiarism</td>
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<td></td>
<td>documentation</td>
</tr>
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<td></td>
<td>Works Cited</td>
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KEY IDEA  Researching a fact or two usually isn’t challenging. Researching a topic, however, is a complex process that involves using several sources to find many—and sometimes conflicting—facts and opinions. Furthermore, finding the information is only the beginning of the research process. Research also requires you to evaluate the sources you find.

QUICKWRITE  In this unit, you will follow a student who is interested in entering a competition for young inventors. If you were this student, how could you find information that would help you accomplish your goals? Try creating a cluster diagram like this one with questions you could ask.

CREATIVE THINKING ZONE

invites all teen inventors to a contest for the BEST NEW INVENTION by a teenager!

Go to our Web site for details.
Finding and Narrowing Your Topic

Before you begin the research process, take a few minutes to set a research goal and to develop a clearer idea of your topic.

SET RESEARCH GOALS

First, write down a few goals for your research. Here is how one student listed a set of goals related to the topic of competitions for young inventors.

General goal: I want to enter a contest for young inventors.

Questions:

• What are the requirements? Are the few simple things I’ve invented suitable to enter in a contest?
• What are the contests like? I’d like a chance to meet other inventors and learn more about inventing in general.

Specific goals: I want to learn more about how a young inventor like me can compete in contests, meet other inventors, and learn more about inventing.

LEARN ABOUT YOUR TOPIC

Once you have decided on some specific goals, it’s time to start your search. Using a variety of sources will help make your research accurate. Try any or all of these methods.

• Use the Internet. Type words related to your topic, such as teen inventors, into a search engine. Select one or two Web pages from the search results. Then visit them to get ideas about your topic.
• Talk with people. Find someone who knows about your topic or shares your interest in it. Present your research goals and ask for ideas.
• Use print resources. Read an article on your topic or skim a nonfiction book.
• Talk with a librarian. Ask for suggestions for sources and ways to improve your research focus.

NARROW YOUR TOPIC

A more specific topic is easier to research than a broad topic. Here’s how one student narrowed her topic after reading.

<table>
<thead>
<tr>
<th>Topic</th>
<th>More Specific</th>
<th>Even More Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventions</td>
<td>competitions for young inventors</td>
<td>competitions for young inventors of robots</td>
</tr>
</tbody>
</table>
DEVELOP RESEARCH QUESTIONS

After you have narrowed the focus of your topic, the next step is to ask research questions about it. Notice how these research questions can’t be answered with just yes or no. Instead, they require rich, full answers.

• Which kinds of inventions have teens submitted?
• How do I find a contest that will accept my new game?
• How can I protect my idea?

After you write your research questions, highlight the keywords, or words that clearly identify your topic. You will use keywords to search library catalogs and databases and to get information from search engines.

PREPARE TO TAKE NOTES

Getting and staying organized helps you keep track of details, credit sources correctly, and do more in less time. One way to be sure you are organized is to take careful notes. If you are doing research for a report, consider using note cards. See pages 1023–1024 to learn more about this note-taking method.

For other kinds of research, try using lists and charts. Think about what kinds of information you are looking for and which format would be best for that information. Here is how one student kept track of contests she found.

<table>
<thead>
<tr>
<th>Name of Competition</th>
<th>Type</th>
<th>Requirements</th>
<th>Notes and Important Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative Thinking Zone</td>
<td>toys</td>
<td>fully working prototype</td>
<td>Grades 6–8 March 1 online registration</td>
</tr>
<tr>
<td>Staples Invention Quest</td>
<td>office</td>
<td>idea described in detailed drawings and itemized specifications</td>
<td>Grades 8–12 October 15 mail-in registration form</td>
</tr>
<tr>
<td>Craftsman NSTA Young Inventors Award</td>
<td>tools</td>
<td>description and drawings—no physical prototypes</td>
<td>Grades 6–8 February 15 online registration</td>
</tr>
<tr>
<td>Wizardkids.net</td>
<td>all kinds of inventions</td>
<td>working models or drawings</td>
<td>Grades 6–12 March 15 online registration</td>
</tr>
</tbody>
</table>

Many researchers start their searches online. Read on to learn how to find the best sites.
Searching the Internet

The Internet is a system of computer networks. The World Wide Web is part of the Internet. The nickname Web comes from the hundreds of millions of connections, or links, from site to site. These links can lead users to billions of Web pages. You can access the Internet by using a device called a modem, which sends and receives information over phone lines. You can also use a cable or wireless device to access the Internet.

Select Search Engines

Search engines are Web sites that organize information based on keywords, headings, popularity among Web users, and other criteria. You can choose from many search engines. Each returns different choices because each selects and organizes information in slightly different ways. To get the best results, learn the rules for the specific search engine you are using. You might also try using the advanced search forms that most search engines offer.

Use Specific Keywords and Search Limiters

Try combining keywords and using search modifiers or limiters like these.

- **Use quotation marks.** A search for “young inventors” will give you results that mention both terms, in that order, right next to each other.

- **Combine terms.** Some search engines allow you to use the term AND or a plus sign to combine terms. For example, “young inventors” AND toys will return only pages that contain all those terms.

- **Exclude terms.** Some search engines let you exclude terms from your results by typing NOT or a minus sign. For instance, “inventions by young people” –computers will return all pages with the phrase “inventions by young people” except the ones that also mention computers.

This chart shows how using search limiters can give you more useful results.

<table>
<thead>
<tr>
<th>You Type In...</th>
<th>You Get...</th>
<th>This Is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>young inventors</td>
<td>1,090,000 results</td>
<td>far too many results, so you make your keywords more specific</td>
</tr>
<tr>
<td>“young inventor”</td>
<td>104 results</td>
<td>much better, but you can tell from the descriptions that many of the results are unrelated to your topic</td>
</tr>
<tr>
<td>competition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+“young inventor”</td>
<td>10 results</td>
<td>best, because the results are closest to the research goal</td>
</tr>
<tr>
<td>+toys +competition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACADEMIC VOCABULARY FOR THE INTERNET

You will use these terms when discussing online research:
- Web site
- Web page
- search engine
- keyword
- Web address
- hyperlink

**TIP** Identifying the best search terms is a multi-step process. Keep changing and refining your terms until you get the results you want.
EVALUATE SEARCH ENGINE RESULTS

Searches often return far more results, also called hits, than you can examine. Follow these guidelines for deciding which results to click on.

1. **Don't just click on the first result.** It may not be the right one for you.
2. **Focus first on the Web address.** Sites with .com and .net in their address are usually personal or commercial sites and may contain sales pitches or biased information. Sites with .org and .gov in their address are usually the work of government agencies or institutions such as museums and nonprofit organizations. Be aware, however, that organizations such as political parties also have .org addresses.
3. **Next, read the brief description the search engine provides.** If the address appears promising and the description matches your goal or keywords, click on the result. If not, you can go to the next result or the next page of results. You can also change or refine your search terms and try again.
4. **Read the page.** Print only those pages that provide information that is closely related to your topic and your research goals.

**TRY IT OUT! Choose Search Engine Results**

This page shows the first four results from an online search.

1. What terms did the searcher use? How do you know?
2. Do you think these results would be useful to a student searching for contests for young inventors? Explain your answer.
3. How would you modify this search to find out about contests for young inventors of robots? Write your new search terms exactly as you would type them into a search box.

**TIP** In general, .gov and .org sites are more reliable than other sites because they are usually the work of large, reputable groups, and their purpose is often only to inform.
EXPLORE A WEB SITE

When you click on a search result, a Web page will come up.

- **Home page**—A **home page** is the main page of a Web site. It welcomes you to the site and gives a general overview.

- **Menus and Hyperlinks**—**Menus** show the main categories of information on a Web site. Another option for finding information is **hyperlinks**, sometimes referred to simply as links. Hyperlinks and links are underlined or highlighted words, terms, URLs (Web addresses), or Web site names. Click on hyperlinks to move to another page or another site.

- **Icons**—These are small pictures or symbols that you can click on to find information. On the Web site below, clicking on the beanie icon brings up information on Jerome Lemelson’s invention of a mechanical beanie.

- **Credits and Sponsor**—The **credits** tell who produced the site, when the site was created, and when it was last updated. A **sponsor** is an organization, agency, or individual that owns the site and controls its content. Knowing about the credits and sponsor helps you evaluate the site for accuracy and reliability. Look for a link that says “About This Site” or “About Us.”

TRY IT OUT! **Examine a Web Page**

This Web page contains the kinds of information shown on many home pages.

Close Read

1. Which menu item would you click on if you wanted to be notified of upcoming events at the Lemelson Center?

2. The “Search” option (item B) lets you search for a specific term or terms within the Lemelson Center site. Why is this a useful option?

3. Where would you click to find out more about who owns this site?

4. Based on what you see here, do you judge this site to be reliable? Why or why not?
Using Library Resources

The Internet isn’t the only place to find information. Your local public library and your school’s media center are also storehouses of information. Furthermore, these places offer access to online information that you cannot get by using most search engines.

Before you start your research, learn how your library or media center is organized and what it offers. Most libraries have different sections for adults, young adults, and children. There may also be special sections devoted to business, local history, or genealogy (tracing your family tree). Many libraries and media centers offer space for quiet study. Computer terminals throughout the library allow you to find out about the library or media center’s holdings, use other online sources, send e-mail, and create reports.

**LIBRARY AND MEDIA CENTER RESOURCES**

**BOOKS**

Fiction—Novels and short stories are examples of fiction. Fictional works come from the writer’s imagination, but they may be based on real people, places, and events.

Nonfiction—Nonfiction works present facts and tell about real people, places, and events. Newspaper and magazine articles, scientific works, essays, speeches, history books, instructional and procedural manuals, and biographies are nonfiction.

**REFERENCE**

Reference desk—This is the place to ask for help with identifying and locating library materials.

Reference works—The reference section of the library includes almanacs, dictionaries, atlases, encyclopedias, and statistical abstracts. These are for use only in the library—you can’t check them out and take them home.

**NEWSPAPERS AND PERIODICALS**

Newspapers and magazines—Most libraries and media centers carry current issues. Some also have past issues in print, on microfilm, on microfiche, or in a digitized format.

**AUDIO AND VIDEO RESOURCES**

DVDs—Many libraries lend documentaries, instructional films, and filmed performances.

Audio—Libraries also lend CD recordings of books, music, speeches, poems, and plays.

**E-RESOURCES**

Electronic collections—You can access and print out articles from databases. You can also download e-books, e-audiobooks, CD-ROMs, podcasts, and MP3s.

**TIP** To access e-resources from a home or other remote computer, all you need is a library card barcode, which you can get when you apply for a library card.
UNDERSTAND THE LIBRARY CATALOG

The library catalog is a complete index of the library’s or library network’s holdings. Consult the reference librarian or the online search tips for the best and fastest ways to search it.

Library catalogs provide many options for searching. The most common methods are by author, title, and keyword or subject.

- **Author**—Type the author’s last name first, like this: *Twain, Mark*. If no results appear, check the spelling, or try the first name first: *Mark Twain*.
- **Title**—Type in the full title or any part of it you know. Leave out unimportant first words such as *the* and *a*.
- **Subject or Keyword**—Type in a word or phrase that names your subject, such as *inventor*. If the results are too broad, then add to your keyword, such as by typing *teen inventor*. Keep in mind that you may need to try several words and phrases before the catalog returns results you can use. For instance, you might find that the phrase *young inventor* or *patent invention* produces better results.

**TRY IT OUT! Search a Library Catalog**

A student typed in the phrase *inventor’s contests* to get to the catalog page below.

**Close Read**

1. How are the results on this page arranged?
2. Name five types of information the page gives for each result.
3. Name three options the user has for getting different search results.
Choosing Nonfiction Sources

Understanding different types of nonfiction sources can help you distinguish the nature and value of each and decide which ones to choose.

**PRIMARY AND SECONDARY SOURCES**

Every nonfiction work is either a primary source or a secondary source.

<table>
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<tr>
<th>TYPE OF SOURCE</th>
<th>BENEFITS AND DRAWBACKS</th>
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<tbody>
<tr>
<td><strong>Primary sources</strong>: materials written or created by people who took part in or witnessed the events they recorded</td>
<td><strong>Benefits</strong>: supply interesting firsthand information and details</td>
</tr>
<tr>
<td><strong>Examples</strong>: autobiographies, public documents such as birth certificates, advertisements, speeches, letters, e-mails, diaries and journals, editorials, political cartoons, first-person newspaper and magazine articles</td>
<td><strong>Drawbacks</strong>: may be biased because they give just one person's limited point of view; may require specialized knowledge to interpret</td>
</tr>
<tr>
<td><strong>Secondary sources</strong>: records of events created by people who were not directly involved in or present at the events</td>
<td><strong>Benefits</strong>: provide an overview or a broad understanding; often synthesize many points of view</td>
</tr>
<tr>
<td><strong>Examples</strong>: textbooks, encyclopedias, reviews, documentaries, most history books, biographies, third-person magazine and newspaper articles</td>
<td><strong>Drawbacks</strong>: may be biased; are only as reliable as the primary sources on which they are based and the accuracy of the writer gathering the information</td>
</tr>
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</table>

**REFERENCE WORKS**

Consult print or electronic reference works for an overview of your topic.

- **Encyclopedias**, such as the *Grolier Student Encyclopedia*
- **Dictionaries**, such as the *World Book Student Dictionary*
- **Almanacs**, such as the *Encyclopedia Britannica Almanac*
- **Atlases**, such as the *National Geographic Family Reference Atlas of the World*

**DATABASES**

**Databases** are organized collections of information. They may focus on one subject or on one publication. See page 1008 for an example of a search on InfoTrac Junior. Many databases require paid subscriptions, so you may need to access them through your media center or library.
NONFICTION BOOKS

For in-depth information on a topic, be sure to consult nonfiction books. To decide whether a specific book is right for your research goal, follow these steps:

1. Read the **title** and **subtitle** to get a general idea of what the book is about.
2. Examine the **copyright page**. Find the latest copyright date shown. This will tell you how recent the information is.
3. Read the **table of contents**. The titles of parts and chapters will give you an overview of the book’s contents. This page also often lists other useful features, such as a **bibliography** (a list of sources used), a list of suggested **further reading**, and a **glossary** (a section that lists and defines specialized terms the author uses).
4. Check the **index** for specific topics or terms that interest you. Single page numbers can signal that there is no more than a brief mention of the topic.

**TRY IT OUT! Examine the Parts of a Book**

Notice the features of the book shown below.

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**Close Read**

1. Is this book recent enough to be helpful? How do you know?
2. Does this book give practical advice about both creating and selling an invention? Explain how you arrived at your answer.
3. Does this book contain information on making a prototype? How about on patent attorneys? Tell where you found this information.
Newspapers and Periodicals

Newspapers are publications that contain news and advertising. Many newspapers include other features as well, such as editorials, letters to the editor, cartoons, and puzzles. Newspapers are published daily, weekly, or very frequently. Most daily newspapers have online versions that are updated throughout the day.

Like newspapers, periodicals are publications issued on a regular basis. They contain news, advice, fiction, research findings, or a combination of these. Periodicals called magazines are published for the general public. Periodicals called journals are published for academic and scholarly audiences. Online versions of periodicals often include corrections, updates, and previously published articles.

Researchers often turn to recent newspaper and magazine articles for up-to-date information presented in understandable language. Older newspaper and magazine articles can offer some perspective on a particular time period.

- **Examples of Newspapers:** *Washington Post, San Francisco Chronicle, Denver Post*
- **Examples of Magazines:** *Time, Consumer Reports, Odyssey, Teen Ink, Next Step*

To find articles on your topic, use a database. The page below comes from InfoTrac Junior, a database for students in grades 5 through 12.

**TRY IT OUT! Examine an Articles Database Search**

To see each article listed in the results, the user would have to click on the underlined title of the article or the underlined words *Check Out*.

**Close Read**

1. What three options does this database provide for searching? (Hint: See the menu on the left-hand side of the page.)
2. Which two keywords did the researcher use?
3. Which of these results would you click on first? Explain your answer.
Evaluating Sources

Sources vary widely in purpose, authorship, and the care with which they were created. Therefore, always carefully evaluate the sources you use. Evaluating means asking and answering questions like the ones below about the trustworthiness of every book, magazine, newspaper, Web site, and other source you use. Refer to pages 1010–1012 for questions about specific types of sources.

<table>
<thead>
<tr>
<th>Question</th>
<th>Reasons to Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the publication date?</td>
<td>Up-to-date information is important, especially in medicine, technology, sports, and politics. Even when you are researching an event that happened many years ago, up-to-date sources usually present the latest findings and insights.</td>
</tr>
<tr>
<td>Who is the author?</td>
<td>In general, look for sources of information written by people who are experts in their field. The author’s profession, other publications, and awards are additional guides to his or her knowledge of the subject.</td>
</tr>
<tr>
<td>Who published the source?</td>
<td>Some publishers take more care to ensure accuracy than others do. Magazines and newspapers that feature articles about fads and celebrities can be unreliable. Instead, look for well-known publishers and university presses. If you’re in doubt, ask a librarian for help.</td>
</tr>
<tr>
<td>What is the author’s or publisher’s purpose?</td>
<td>Many Web sites and publications have a political or commercial purpose. Some may present biased, or one-sided, views of topics, leaving out information that does not suit their purposes. Determine the source’s intended purpose before you decide whether to use it.</td>
</tr>
<tr>
<td>Is this information useful to me?</td>
<td>Make sure the source is written at a level that’s appropriate for you—not too childish or too scholarly. Also, study the table of contents or menus for your keywords or for other words and phrases that relate specifically to your research goals.</td>
</tr>
</tbody>
</table>
EVALUATE WEB SITES

A book is often the result of teamwork: it has an author as well as editors and reviewers. On the other hand, a Web site may be the work of just one individual. In many cases, no one has checked or reviewed personal Web sites.

To evaluate a Web site, ask and answer these questions:

• **Who created the site?** Is the author an expert? What does the site tell you about the author(s)?

• **Why was the site created?** Consider whether the creators want to sell you something—either a product or an idea.

• **Are there problems on the site?** Watch for mistakes in facts, grammar, or spelling, which may mean that the source is unreliable.

• **Are there credits?** Look for a bibliography of the site’s creator, the name of a sponsoring organization, and a “last updated” reference.

• **Could you consult a more reliable source to find coverage of the same topic?** Use a variety of sources, such as encyclopedias, almanacs, magazines, newspapers, documentaries, and interviews with experts.

**TRY IT OUT! Examine a Personal Web Site**

What is useful about this site? What errors or problems do you see?

**Close Read**

1. What is the purpose of this site?
2. What is missing from this site that could help you evaluate it?
3. Name two other problems with this site.
EVALUATE A NONFICTION BOOK

Once you have found a book with information on your topic, how do you evaluate it? Ask and answer these questions:

- **What is the copyright date?** Look for the most recent date on the copyright page. If you see many dates, that is a good sign because it means that the book has been through many updates and printings. The book jacket may also say *revised, updated, or new*.

- **Is the book carefully researched?** Look for a *bibliography*, a list of works the author referred to when writing. Also, look for *footnotes* and *end notes* that help you understand where the author found specific information. Check the back of the book for an *appendix* with additional information, such as maps, charts, or tables.

- **Who is the author?** Look for an author biography on the book jacket or at the end of the book. Use the biography to learn more about the author’s education, profession, and other publications.

**TRY IT OUT! Examine a Nonfiction Book**

Decide whether this book is a reliable source for someone who is researching the topic of teen inventors who got patents. Use what you have learned about nonfiction books and about the parts of a book (page 1007).

**Kids Create**

America’s Youngest Inventors

Ilana Brodsky

**New for 1992!**

3rd Edition

**About the Author**

The author of ten books and numerous articles for young readers, Ilana Brodsky has written on topics that range from lasers to artificial turf to the poet Emily Dickinson. The idea for *Kids Create* was born when Brodsky stumbled into a competition for teen inventors in Omaha. “This fascinating story just screamed to be told,” Brodsky explained.

Ms. Brodsky lives in Buffalo, New York, with her two cats.

**Close Read**

1. What is this book about?
2. Is the author an expert on this topic? What are her qualifications?
3. How up to date is this book? Is it new or revised?
4. What other parts of this book would provide information about its reliability and usefulness? (Hint: See page 1007.)
EVALUATE NEWSPAPERS AND PERIODICALS

Periodicals are a good source of recent information. Your library may offer some of them in print and many others online or on microfilm. Once you find a periodical article, you should evaluate it before you use it. Ask and answer these questions:

• **Is this magazine or newspaper well-known and respected?** Many national magazines and newspapers with large circulation numbers are reliable. If a publication prints rumors about celebrities, stories about space aliens, or miracle weight-loss cures, avoid it.

• **When was it published?** Up-to-date sources are best unless you’re looking for details or insights from a particular period. For example, if you are researching a particular inventor from the past, a magazine or newspaper article from when he or she was alive and inventing could be among your best sources.

• **Who is the author?** Look for information about the writer. Assume that staff writers are as reliable as the publication in which they appear.

• **Can you verify the facts?** You should be able to verify every fact in at least one other source.

**EXAMINE A NEWSPAPER ARTICLE**

Ask questions about the periodical, the author, the facts, and other content to evaluate this article.

**from the Warren Star**

**Warren Teen Wins Inventors’ Competition**

**BY DERONE SANDAGE, STAFF WRITER**

Judges at the Young Inventors’ Convention in Buffalo have awarded first prize to a local teenager.

“Shoveling snow is nobody’s favorite chore,” says Warren Middle School student Alex Heisner, “so I thought I would make it a little easier.”

Heisner invented the Shovel-L, a sturdy, wheeled shovel that makes snow removal less of a strain on the back and shoulders. “It works on heavy, wet snow and on the dry, powdery kind,” explained the 13-year-old, who has applied for a patent. “It isn’t so great with leaves, though. They mostly just blow away.”

**HELP FOR YOUNG INVENTORS**

• The Young Inventors Convention will meet in Baltimore next October. Other area and national conventions exist.

• Try calling local colleges and universities and asking for the school of business. Professors, instructors, or business clubs may offer advice.

• The local office of the Small Business Administration can offer tips and contacts.

When Heisner demonstrated his device at the convention, judges agreed that it really did work.

See INVENTOR, page B7

**CLOSE READ**

1. How well is this article related to the research topic “invention competitions for teens”?

2. Do you think the information in this article is reliable? Why or why not?

3. At the end of this article, the reporter included his e-mail address and the Web address for the Young Inventors’ Convention. Why is this information important?
Conducting Your Own Research

The Internet and the library aren’t the only places you can find information on your topic. For example, you may be able to gather data by conducting a survey or doing another kind of field research or observation. You may even be able to locate experts to interview.

OBSERVATION AND FIELD RESEARCH

Doing field research means observing with a specific research goal in mind. For example, you might attend a young inventors’ competition and collect data about the entries and the people who submitted them. Here are the field notes that one student took.

Notes on Visit to Young Inventors’ Competition, Cincinnati, 4/26/2008

• 128 participants, 128 inventions
• participants represent 22 counties in Ohio (78 participants, or 61 percent, from Hamilton County)
• 28 household devices; 61 devices related to computer hardware or software; 4 industrial devices; 6 transportation-related items; 4 inventions related to pets and pet care; 25 miscellaneous
• Youngest participant: 12 years, 7 months; oldest participant, 17 years, 8 months
• Sources of inspiration: 16 percent friends; 10 percent parents; 42 percent media (movies, TV, Web sites, radio, books, podcasts); 12 percent teachers or school projects; 20 percent “out of the blue/don’t know

INTERVIEWS

Interviews can yield valuable information from primary sources. You can conduct an interview in person, by telephone, by e-mail, by instant message, or by letter. For the topic of young inventors, you might interview a successful inventor, someone who organizes inventors’ competitions, or a patent attorney. Successful interviews depend on excellent preparation. See pages R83–R84 for tips and strategies.

Questions for Competition Participants

• What does your invention do?
• How did you get the idea for it?
• What was your development process? Did you build a prototype, make sketches, or talk to experts as you made improvements to your invention?
• About how much did it cost to develop your invention?
• I would like to be an inventor. Do you have any advice for me?
Research Tips and Strategies

Where to Search
Your options for finding information are constantly increasing. Be aware of your choices.

Search Engines
There are many search engines. Always use more than one.
• Google (www.google.com)
• Yahoo! (www.yahoo.com)
• Ask (www.ask.com)

Metasearch Tools
These tools access many search engines and combine the results.
• Dogpile (www.dogpile.com)
• Clusty (clusty.com)

Directories
Directories put Internet resources into categories.
• About (about.com)
• Google Directory (dir.google.com)
• Yahoo! Kids (kids.yahoo.com)

Virtual Libraries
Virtual libraries contain information in encyclopedias, directories, and indexes.
• Internet Public Library (www.ipl.org)
• Librarians’ Internet Index (www.lii.org)

Other Web Resources
• American Memory, Library of Congress (memory.loc.gov)
• The Tech Museum of Innovation (www.thetech.org)
• U.S. Government Portal (firstgov.gov)
• Databases: ProQuest K–12, InfoTrac Junior Edition

Checklist for Evaluating a Source
✓ Is the information directly related to your topic?
✓ Is the information up to date?
✓ Is the author qualified to write about your topic?
✓ Can you determine the author’s purpose?
✓ Is the writing at your level?
✓ Was the information provided by a reliable institution?
✓ Have experts reviewed or updated the information?
✓ Can you verify the facts in at least one other source?

Understanding Web Addresses
Web addresses provide clues to the site’s author and purpose.

WEB ABBREVIATIONS AND MEANINGS

.com commercial—businesses, products, and many personal Web sites
.edu education—schools, including teachers’ and students’ personal sites
.gov U.S. government—official U.S. government sites, such as whitehouse.gov, usmint.gov, nutrition.gov, and www.census.gov
.mil military—official U.S. armed forces and related sites
.net network—product information and sales
.org organizations—museums, libraries, political parties, charities, and other nonprofit groups
Exploring the Library or Media Center

Fiction is always arranged alphabetically according to the author’s last name. Systems for classifying nonfiction vary by library. Most high school and public libraries use the Dewey decimal system. Most university and research libraries use the Library of Congress system.

**DEWEY DECIMAL SYSTEM**

000–099  General works
100–199  Philosophy and psychology
200–299  Religion
300–399  Social sciences
400–499  Language
500–599  Natural sciences and mathematics
600–699  Technology (applied sciences)
700–799  Art and recreation
800–899  Literature and rhetoric
900–999  Geography and history

**LIBRARY OF CONGRESS SYSTEM**

A  General works
B  Philosophy, psychology, religion
C–D  History
E–F  American history
G  Geography, anthropology, recreation
H  Social sciences
J  Political science
K  Law
L  Education

M  Music
N  Fine arts
P  Language and literature
Q  Science
R  Medicine
S  Agriculture
T  Technology
U  Military science
V  Naval science
Z  Bibliography and library science
Research Report

Now that you have learned how to find a variety of reliable sources, you can create a research report that showcases what you know. For the best route to an informative, interesting report, follow the **Writer’s Road Map**.

### Writer’s Road Map

#### Research Report

**Writing Prompt 1**

**Writing from the Real World** Write a research report that investigates a topic that interests you. Your report should include information from at least four sources.

**Topics to Consider**
- What were the achievements of the Lewis and Clark expedition?
- Do dolphins have their own language?
- Who invented baseball?

**Writing Prompt 2**

**Writing from Literature** Write a research report that investigates a topic you discovered in a piece of literature you read. Your report should include data from at least four sources.

**Topics to Consider**
- Who started the Underground Railroad? ("Harriet Tubman: Conductor on the Underground Railroad")
- Who else rode with Paul Revere? ("Paul Revere’s Ride")
- What makes a person smart? (Flowers for Algernon)

---

### Key Traits

1. **Ideas**
   - Presents a thesis statement that clearly identifies the topic and controlling idea of the report
   - Supports the thesis with evidence, such as examples, facts, statistics, and expert opinions
   - Synthesizes information from multiple sources and includes quotations and paraphrases
   - Includes the writer’s own ideas

2. **Organization**
   - Follows a clear organizational pattern
   - Connects ideas with transitions
   - Includes an interesting introduction and a thoughtful conclusion

3. **Voice**
   - Maintains a serious, formal tone

4. **Word Choice**
   - Uses precise words to explain ideas

5. **Sentence Fluency**
   - Varies the lengths of sentences

6. **Conventions**
   - Uses correct grammar, spelling, and punctuation
   - Credits sources
   - Uses correct formats and style

---

**Research Tools**

For research tools and citation guidelines, go to the Research Center at ClassZone.com.
The Difficult Job of a Civil War Drummer Boy

When the Civil War broke out, many boys thought that going off to war would be an exciting adventure. When they tried to sign up, however, recruiters wouldn’t let most of them become soldiers because they were too young (Murphy 8). In fact, the writer Stephen Currie says that some of these boys were under the age of eleven (3). Civil War expert Jay Hoar lists some as young as age six (227). Instead of turning these young volunteers into soldiers, the armies of the North and the South used them as musicians, especially as drummer boys (Murphy 10). Yet even those jobs had many responsibilities and dangers. For the most part, drummer boys were too young to do the difficult jobs they faced and much too young for war.

The Drummer Boy’s Jobs

Drummer boys for the North and South had similar duties. One important job of every drummer was to be a kind of human clock. Drummers woke the troops up in the morning, called them to roll call and other duties, and sent them to bed (Wolfe 745; Heiser). This part of the job was not too difficult, but the day was very long for a child. It began as early as 5:45 a.m. (Wolfe 745).

A more difficult job was keeping time as the troops marched. This job was clearly challenging for many young boys. Hoar points out that at least one drummer boy was just 40 inches tall, so the drums were very big in comparison to the little boys (116). Since marches went on for miles, it’s likely that carrying a big drum was exhausting.
Drummers also called the men to battle, and some drummed commands during battle. They had to drum with bullets and cannon balls zooming all around them. They watched soldiers die. Sometimes, drummer boys “found themselves the target of enemy fire” (Murphy 40). When drummer boy Delavan Miller was caught in the fighting, he admitted, “I was never so scared in all my life” (quoted in Currie 6).

Sometimes drummers had to help care for injured soldiers (Heiser). Drummers suffered in other ways, too. For example, hunger was constant for many Confederates, and some wore ragged clothing (Robertson 1024). Troops also faced bad weather and disease. They had to deal with being bored and homesick, too.

Dying for a Cause

Many drummer boys did even more than drumming, helping with the wounded, and other chores. Although they were very young, some even gave their lives. A few were heroes.

For instance, a legend grew up about the drummer boy of Shiloh (“Shiloh”). Stories vary, but the drummer boy is said to have kept drumming even when the troops were retreating and bullets were flying (Hoar 120). In the song called “The Drummer Boy of Shiloh” by Will S. Hays, the drummer boy dies. As he dies, he says, “I’ve loved my country as my God.

To serve them both I’ve tried.”

He smiled, shook hands—death seized the boy, Who prayed before he died (13–16, quoted in “Shiloh”).

This song tells about a child who made the greatest sacrifice for his country. Many drummer boys died in the war. Some, like William Johnston at age 11, were so brave that they won the highest possible medal, the Congressional Medal of Honor (Hoar 24, 234). Others, like 12-year-old Clarence McKenzie, died from a “stray bullet” (Hoar 3).
How many drummer boys died during the Civil War? Murphy says that “hundreds were killed and thousands more wounded” (43). Giving their lives was an enormous sacrifice for these children to make.

The Last Drummer Boys
The Civil War was the last war to use drummer boys on the battlefield. Later wars were noisier, with more rifles, more soldiers, and more cannons. Therefore, no one could hear the drummer boy anymore (Murphy 41, 43). That seems like one of the few good things to come out of deadlier wars. Drummer boys of the Civil War were too young for the many challenges that they faced. Children today are lucky that this job no longer exists.

Works Cited
### Part 2: Apply the Writing Process

#### PREWRITING

<table>
<thead>
<tr>
<th>What Should I Do?</th>
<th>What Does It Look Like?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Select a topic and freewrite.</strong></td>
<td>I liked that story we read about the Civil War. Where did Bradbury get the idea for it? What would it be like to be just a kid and in a war... to know that a big battle is coming and have the general admit he is scared? (Were there really boys like this in the Civil War?)</td>
</tr>
<tr>
<td>Select a topic from page 1016, or focus on a topic or general subject area your teacher has assigned. Then begin freewriting about the topic. In other words, jot down ideas and associations that occur to you as you think about it. <strong>(Circle)</strong> ideas that you think might be interesting to research.</td>
<td></td>
</tr>
<tr>
<td>2. <strong>Create research questions.</strong></td>
<td>My Research Questions:</td>
</tr>
<tr>
<td>Now decide what you really want to know about the idea or ideas you just circled. List questions you have. Make your questions as specific as possible.</td>
<td>- How did young kids end up in the Civil War?</td>
</tr>
<tr>
<td>See page 1000: Develop Research Questions</td>
<td>- What jobs did drummer boys do?</td>
</tr>
<tr>
<td>3. <strong>Find out more.</strong></td>
<td>My Answers and Other Notes:</td>
</tr>
<tr>
<td>Get a better sense of your topic by visiting Web sites or by reading an encyclopedia or magazine article about your topic. As you do so, look for answers to your research questions. Make some notes.</td>
<td>- Lots of boys wanted to fight in the Civil War but were too young to be soldiers.</td>
</tr>
<tr>
<td></td>
<td>- Drummer boys kept time while the soldiers marched. They also called the men to their meals and duties.</td>
</tr>
<tr>
<td></td>
<td>- There’s a lot of information about the work drummer boys did in camp and in battles. That might make a good focus.</td>
</tr>
<tr>
<td>4. <strong>Make your topic more specific.</strong></td>
<td>Narrowing My Topic:</td>
</tr>
<tr>
<td>Think about the length of the report you have been assigned. If whole books have been written on your topic, then you probably need to find one narrow part of the topic to explore.</td>
<td>Boys in the Civil War (too big a topic)</td>
</tr>
<tr>
<td></td>
<td>Drummer boys (still seems like a lot for a three-page report)</td>
</tr>
<tr>
<td></td>
<td>The jobs drummer boys did (narrow topic)</td>
</tr>
</tbody>
</table>
RESEARCHING

What Should I Do?

1. Identify sources.
   After you have narrowed your topic, you can begin the research process. The first step is to identify keywords, specific words or phrases that relate to your topic. You will need keywords to locate materials in the library or on the Internet. See pages 1001–1005 for help with searching for information in a library or on the Internet.

Make a chart like this one to record and analyze the sources you find.

TIP For best search results from a library catalog, read the library’s online tips for searching the catalog, use the advanced search form, or ask a reference librarian for help.

What Does It Look Like?

<table>
<thead>
<tr>
<th>Sources</th>
<th>My Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Library Reference Works</strong></td>
<td></td>
</tr>
<tr>
<td>&quot;Civil War,&quot; World Book Encyclopedia</td>
<td>nothing about boys who went to war</td>
</tr>
<tr>
<td><strong>Other Library Books</strong></td>
<td></td>
</tr>
<tr>
<td>The Boys’ War by Jim Murphy (J973.7 M978)</td>
<td>full of primary source material—has a whole chapter about drummer boys</td>
</tr>
<tr>
<td>The Children’s Civil War by James Marten (973.7 M377)</td>
<td>secondary source that includes a chapter on children responding to the war</td>
</tr>
<tr>
<td><strong>Web Sites</strong></td>
<td></td>
</tr>
<tr>
<td>“Young Heroes of the Civil War”</td>
<td>no information about the author, and no links to a home page or other sources</td>
</tr>
<tr>
<td>“Music of the Civil War” (I bookmarked this on Ted’s computer)</td>
<td>several good facts about my topic, and the sponsor is the National Park Service</td>
</tr>
</tbody>
</table>

2. Evaluate what you find.
   Determine which results are significant information sources.
   • Do not use a source if it is too difficult or too childish for you.
   • Do not use a source that might not be accurate. For example, Web sites without an author, a sponsor, or working links might be the work of just one person who is not an expert.

See pages 1009–1012: Evaluating Sources
## RESEARCHING

### What Should I Do?

3. Make one index card for each source. Number each card in the top right corner. Then record the following information so you will be able to cite your source correctly later.

**Online encyclopedia**
- author (if given) and title of the article
- date of publication (if given)
- name of publisher
- date you accessed the article
- complete URL (Web address)

**Print or CD-ROM encyclopedia**
- author (if given) and title of the article
- name and year of encyclopedia
- if a CD-ROM, the term CD-ROM, plus the publisher and the place of publication

**Web site**
- author (if given) and title of page or article
- name of Web site (if given)
- date of Web site (if given)
- site sponsor or creator (if given)
- date you accessed the article
- complete URL (Web address)
- if the site comes from a print publication, the publisher, place of publication, and year of publication

**Book**
- author and/or editor
- title
- publisher, place of publication, and year of publication
- library call number

See page 1030: Citing Sources

### What Does It Look Like?

#### Online encyclopedia


#### Print encyclopedia


#### Web site


#### Book

**RESEARCHING**

**What Should I Do?**

4. **Make note cards.**
   Now you are ready to take notes. Start with a clean index card.
   - Write the number of the source on it (the same number you put on the source card).
   - Write a specific heading for the card. Use the same heading on cards with similar information.
   - Write the fact or idea that interests you.
   - Record the page number if there is one.

5. **Take careful, responsible notes.**
   Use these three ways to record information from a source.
   - **Quote** the source by copying the important phrase, sentence, or paragraph word for word. Enclose direct quotations in quotation marks.
   - **Paraphrase** the source by using your own words to tell what the source says. Use about the same number of words as the source does.
   - **Summarize** the source by recording only the most important ideas and concepts in your own words. Use fewer words than the source does.

**TIP** Quote only when you cannot restate the idea in the source as clearly, vividly, or forcefully as the source does. Most of your notes should be summaries and paraphrases.

---

**What Does It Look Like?**

<table>
<thead>
<tr>
<th>Jobs for a drummer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drums woke the troops and called them to different duties, such as sick duty and work details (no page number).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age of boys in Civil War</th>
</tr>
</thead>
<tbody>
<tr>
<td>The youngest boys were just six years old (227).</td>
</tr>
</tbody>
</table>

**Original source**

Many [boys from the North] joined because they wanted to take the defiant South and “set them straight.” But most signed up for a simpler reason—to escape the boring routine of farm life and take part in an exciting adventure.

*Murphy, Jim, The Boys’ War*

**Paraphrase**

**Reasons boys joined up**

Boys from the North wanted to punish the South for being rebellious. An even more important reason for joining was that boys thought they would have a thrilling life instead of a dull one spent on a farm (Murphy 8).

**Summary**

**Reasons boys joined up**

Northern boys wanted to beat the South and have an adventure (Murphy 8).
6. Avoid plagiarism.

Plagiarism occurs when you use someone else’s words or ideas without correctly formatting and crediting them. Follow these guidelines to avoid plagiarism.

- **Paraphrase and summarize as you take notes.** Take the time to think through and understand what you are reading. Put as much of your reading as you can into your own words.

- **Don’t rely heavily on a single source.** If you read and understand a variety of perspectives on your topic, you won’t be misled by a few isolated facts. Instead, consider the majority of the evidence. Blend facts, ideas, and opinions from at least four sources.

- **Place quotation marks around every significant word, phrase, or sentence that you copy.** Even if you copy just a few key words while paraphrasing the majority of the passage, you must put quotation marks around those words.

- **Put away your sources when you begin your draft.** Don’t work from an open book. Never cut and paste chunks of information from an online source. Rely on your note cards instead.

**TIP** When you paraphrase and summarize, you do not have to put quotation marks around common words from your source or around words that you use over and over, such as Civil War, drummer, and battle. You do have to put quotation marks around specific, descriptive words and phrases, such as in this example: Drummer boys were often “unintended sacrifices,” caught in enemy fire.

---

**Original source**

When fighting appeared imminent, musicians were often ordered to the rear to assist surgeons and care for the wounded.

*Heiser, John, “Music of the Civil War”*

**Plagiarized paraphrase**

When a battle appeared imminent, musicians were often sent to care for the wounded.

**Correctly documented paraphrase**

Drummer boys often had to help care for injured soldiers (*Heiser*).

---

**Original source**

Since Shiloh was significant for the bravery of the young untrained men of the North and South alike, writers frequently wrote about the young and otherwise undistinguished soldiers rather than the . . . leaders. The drummer boy, often a mere lad who had run away from home to seek adventure in the ranks, became the subject of the most popular literature of the day.

*“Shiloh Inspires Writers”*

**Plagiarized summary**

The drummer boy of Shiloh became the subject of the most popular literature of the time.

**Correctly written and documented summary**

A legend grew up about the drummer boy of Shiloh ("Shiloh").
7. **Write a thesis statement.**

A *thesis statement* is the main idea or controlling idea of your report. Everything in your report should relate to or prove your thesis statement. It is a single, generalized statement that drives the entire work.

Be sure your thesis statement names your writing topic and says something about it. Don’t worry if your thesis isn’t perfect now. You can—and should—revise it after you work on your first draft.

<table>
<thead>
<tr>
<th>My topic:</th>
<th>Drummer boys in the Civil War</th>
</tr>
</thead>
<tbody>
<tr>
<td>What I will say about the topic:</td>
<td>Drummer boys had many difficult jobs</td>
</tr>
<tr>
<td>My working thesis statement:</td>
<td>Drummer boys were too young for the jobs they were given</td>
</tr>
</tbody>
</table>

8. **Organize your notes and make an outline.**

You can create a writing plan from your note cards by following these steps:

- Separate your cards into groups with similar or related headings.
- Decide on an order for the groups you created. You might organize information chronologically, in order of importance, or in any logical order that is appropriate to your thesis.
- Put your cards in the most appropriate order and create an outline based on that order.

**TIP** The outline on this page is a formal outline, but you can also make an informal outline or create a graphic organizer such as a flow chart or sequence chain.

Drummer Boys in the Civil War

1. **Who the drummer boys were**
   - A. Too young to be soldiers
   - B. Had jobs that were too hard for them

2. **Drummer boys’ duties**
   - A. Acted as human clocks
   - B. Drummed the beat of the march
   - C. Drummed during battle
   - D. Sometimes helped care for wounded

3. **Dying for a cause**
   - A. Drummer Boy of Shiloh
   - B. William Johnston
   - C. Clarence McKenzie
   - D. Number of deaths

4. **Last drummer boys**
   - A. Civil War the last time drummer boys used
   - B. Later wars too noisy to hear drums
### DRAFTING

#### What Should I Do?

1. **Begin your first draft.**
   Use your outline or other organizational plan in addition to your note cards to begin creating complete sentences and paragraphs. Notice how this student used an **analogy** (a point-by-point comparison) to explain the drummer boys’ jobs.

2. **Stay focused on your thesis.**
   Make sure each point you make relates to or proves your thesis. It’s a good idea to repeat some key words from your thesis in your topic sentences.

3. **Weave in your sources.**
   As you write, let your reader know where ideas are coming from. Try using introductory phrases like these:
   - “According to Murphy, . . .”
   - “Wolfe points out . . .”
   - “In ‘Drummer Boys and Fifers,’ Stephen Currie writes . . .”

4. **Consider adding a graphic.**
   A chart, map, graph, timeline, or diagram can be an effective way to present the information you collected. Include a title that relates to your thesis. Add a source line at the bottom that tells where you found your information.

   **See pages R4–R7: Graphic Aids**

#### What Does It Look Like?

<table>
<thead>
<tr>
<th>Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Drummer boys’ duties</td>
</tr>
<tr>
<td>2. Acted as human clocks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First draft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drummer boys for the North and South had similar duties. One job was to be a kind of human clock. Drummers woke the troops, called them to roll call, and sent them to bed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drummer boys were too young to do the difficult jobs they faced.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Related topic sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>A more difficult job was keeping time as the troops marched.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The writer Stephen Currie says</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some of these boys were under the age of eleven (Currie 3).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Civil War expert Jay Hoar points out that</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one drummer was just 40 inches tall (Hoar 116).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ideas for Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Photographs of drummer boys</td>
</tr>
<tr>
<td>- Chart with names and ages of medal winners</td>
</tr>
<tr>
<td>- Map showing a day’s march for one boy</td>
</tr>
<tr>
<td>- Bar graph showing how many drummer boys were in different wars</td>
</tr>
</tbody>
</table>
### DRAFTING

#### What Should I Do?

5. **Credit your sources.**
   You have to **credit**, or document, each source you use at the end of the sentence or sentences in which it appears. Because this information appears in parentheses, it is called **parenthetical documentation**. It usually consists of the author's last name and a page number and looks like this: (Murphy 8). Here are some exceptions:

- **Web site**: Because a Web site has no page numbers, use only the author's name: (Heiser). If the site does not credit an author, use a short form of the title: (“Shiloh”).

- **Author named in sentence**: Use only the page number: (8).

- **More than one source for a single idea**: List both sources and separate them with a semicolon: (“Shiloh”; Wolfe 745).

6. **Make a Works Cited list.**
   Alphabetize your source cards by the author's last name. If a source does not name an author, alphabetize by title. Some common types of sources are shown here. See page 1030 of this book or the *MLA Handbook for Writers of Research Papers* for other kinds of entries.

#### What Does It Look Like?

<table>
<thead>
<tr>
<th>Drummer boys also sometimes found themselves the target of enemy fire (Murphy 40).</th>
<th>Author and page number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoar points out that some drummer boys were just 40 inches tall (116).</td>
<td>Author named in sentence</td>
</tr>
<tr>
<td>Drummers woke the troops up in the morning, called them to roll call and other duties, and sent them to bed (Wolfe 745; Heiser).</td>
<td>Information from two sources</td>
</tr>
</tbody>
</table>

**Works Cited**


1. Take another look at your introduction.  
   - **Highlight** the sentences that help lead up to or explain your thesis.  
   - Do these sentences provide useful details and help to capture your reader’s interest?  
   - **Add background information** to help your reader understand where you are heading.

   **What Does It Look Like?**
   - Armies of the North and South used drummer boys during the Civil War. These boys faced many responsibilities and dangers.  
   - When the Civil War broke out, many boys thought that going off to war would be an exciting adventure. When they tried to sign up, however, recruiters wouldn’t let most of them become soldiers because they were too young (Murphy 8).

2. Improve your support.  
   - Ask a peer reader to **underline** points you made that are hard to understand or that lack support.  
   - **Add facts, explanations, reasons, or other support**, as well as correct documentation.

   **What Does It Look Like?**
   - This song tells about a child who made the greatest sacrifice for his country. He wasn’t the only one.  
   - Many drummer boys died in the war. For example, 12-year-old Clarence McKenzie died from a “stray bullet” (Hoar 3).

3. Strike a balance between researched information and your own ideas.  
   - Do your own ideas appear in your report, or have you merely repeated the opinions of others?  
   - Look for places to **include your own reflections and insights** on the facts or opinions.

   **What Does It Look Like?**
   - Hoar points out that at least one drummer boy was just 40 inches tall, so the drums were very big in comparison to the little boys (116). Since marches went on for miles, it’s likely that carrying a big drum was exhausting.

4. Delete unnecessary details.  
   - Check your report for ideas that do not relate to or prove the thesis.  
   - **Delete any words, phrases, or sentences** that interfere with clarity or unity.

   **What Does It Look Like?**
   - Dying for a Cause  
   - Many drummer boys did even more than drumming, helping with the wounded, and other chores. Some also drummed deserters out of the unit (Wolfe). Although they were young, some even gave their lives, and a few were heroes.
5. **Add transitions.**
   - Decide whether each sentence and each paragraph flows smoothly to the next. **Circle** connecting words.
   - If you don’t see many circles, add **transitions** to help your reader make connections between paragraphs, passages, and ideas.

6. **Notice sentence lengths.**
   - Reread your report. If you have many short, choppy sentences, try combining some for a **more graceful flow of ideas**.
   - If you have many long sentences, break them up with one or two short sentences to **create interest and variety**.

7. **Make your conclusion memorable.**
   - Decide whether your conclusion is thoughtful and interesting or just pointlessly repeats what you’ve already said.
   - Consider ending with a **memorable phrase** or two.
   - Don’t overlook this opportunity to present your own thinking.

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**Drummers suffered in other ways. Hunger was constant for many Confederates, and some wore ragged clothing (Robertson 1024). Troops faced bad weather and disease.**

**When Drummer boy Delavan Miller was caught in the fighting, he admitted, “I was never so scared in all my life” (quoted in Currie 6).**

**Many drummer boys did even more than drumming, helping with the wounded, and other chores. Although they were very young, some even gave their lives, and a few were heroes.**

**As my report shows, drummer boys of the Civil War faced many challenges. They had to put in long days, carry big drums, and help with the wounded. The Civil War was the last war to use drummer boys on the battlefield. Later wars were noisier, with more rifles, more soldiers, and more cannons. No one could hear the drummer boys anymore (Murphy 41, 43). That seems like one of the few good things to come out of deadlier wars. Drummer boys of the Civil War were too young for the many challenges that they faced. Children today are lucky that this job no longer exists.**
Consider the Criteria
Use this checklist to make sure your report is on track.

Ideas
✓ presents a thesis statement and supports it with evidence
✓ includes quotations and paraphrases from multiple sources
✓ features the writer’s own ideas

Organization
✓ is clearly organized
✓ has appropriate transitions

Voice
✓ maintains a formal tone

Word Choice
✓ explains ideas precisely

Sentence Fluency
✓ varies sentence lengths

Conventions
✓ uses correct grammar, spelling, and punctuation
✓ credits sources and uses correct formats and style

Ask a Peer Reader
• What is my thesis? Do I need to clarify it? If so, how?
• Where should I add more support or background information?
• Which part of my report was most interesting? Why?
• What else would you like to know about this topic?

Citing Sources
Follow these examples for citing different types of sources.

CD-ROM encyclopedia

Newspaper or magazine article

Interview you conducted with an expert
Shubert, William. Personal interview. 1 Apr. 2008.

Book with an editor

Film or documentary

For more examples, see the MLA Handbook for Writers of Research Papers.
Making a Research Presentation
Share your expertise by turning your report into a presentation.

Planning the Presentation

1. **What’s your message?** Like your report, your presentation must be built around a thesis. However, instead of including every detail of your report, think about conveying your overall message through words and visuals.

2. **Make an outline.** Write down important ideas and concepts from reliable sources, using a mixture of paraphrases, summaries, and direct quotations. As you did in your report, present all the relevant perspectives on your topic. In other words, describe the points of view of different sources, and leave out sources that are not related to your topic.

3. **Use primary and secondary sources if possible.** Primary and secondary sources are valuable for different reasons. Although primary sources sometimes describe only one person’s experience, they often have fascinating details, and they can give your presentation a “you are there” feeling. Primary sources are difficult to find for some topics, such as ancient history. However, most topics allow you to use both types of source material.

4. **Present information through charts, maps, and graphs.** For a presentation on Civil War drummer boys, you might include a chart showing the boys’ names and ages. You could also create a map of battle sites or a bar graph showing the number of drummer boys on each side of the conflict. See pages R4–R7 to learn more. Add a source line to each graphic that tells where you got the information.

Delivering the Presentation

1. **Use appropriate words and correct grammar.** Avoid slang. Instead, use standard English—the kind found in textbooks.

2. **Answer questions from your audience.** Repeat questions before answering them, so you can be sure that you understood the question and that everyone heard it. If you don’t know the answer to a question, it’s all right to say, “Let me check my sources and get back to you on that.”

See page R81: Evaluate a Research Presentation