The Research Report: Telling Readers What You've Found

Image by storyset on Freepik

If you have never written a research paper, you may think you will be using skills you have never used before. However, most likely you have been doing research for much of your life. For instance, think about a time you wanted to buy an expensive item and set out to investigate and compare different brands or models. The topic of your research was the item you wanted to buy, whether it was a CD player, a computer, or a pair of roller-blades.

You began asking questions about this item, beginning with the most general question: Which of these CD players (or computers or whatever) is the best buy? You then broke this general question down into more specific questions, such as the following:

What is the price of each CD player?

How high is the sound quality of each player?

How durable is each player?

How convenient to use is each player?

You may have asked many more questions about your choices. If you are a smart consumer, you went about getting answers to your specific questions. You may have asked (or interviewed) friends and experts. You may have studied the brochures and information provided by the manufacturers. You may have used books, magazines, and the Internet to find answers to your questions.

Once you answered all of your specific questions, you were then able to answer your general question—"Which CD player is the best buy?"

Your search for the best buy was a research project! If you had taken all of your answers and written them into a report, you would have produced a research paper.

You see, a research paper, like a search for the best CD player to buy, is an investigation into a topic or subject. The researcher seeks out answers to questions. As the word *research* suggests, the researcher *searches* for

information and ideas. Synonyms for *research*, or words that are similar in meaning to *research*, are *investigate*, *examine*, *explore*, and *study*.

Image by storyset on Freepik

Simply put, the writer of a research paper poses questions about a topic and then strikes out to look for answers. The writer goes about the search in the same way a detective goes about solving a crime. The writer and detective use the answers they find to make a claim. After answering all of your specific questions about CD players, you were ready to make a claim about the best buy. Similarly, after gathering enough evidence, the detective will make a claim about who committed the crime.

As you can see, the success of the writer and the detective depends upon how good their questions are and how accurate or true their answers are about their search.

Prewriting for the Research Report: Find Your Topic, Ask Questions, Search for Answers

Some of the reports or essays you write will be on assigned topics. For example, your biology teacher may ask you to write a report on how some of Florida's wetlands are being lost and damaged by people. Your history teacher may ask you to explain the causes of the Civil War. You may even find yourself writing on an assigned topic as part of your job. If, for example, you become a manager for a company, your supervisor may ask you to write a paper or memo on whether the company should open a store in a particular city or try to sell its products to a particular chain of stores. In each of these cases, you were given a question to answer. You were, in a sense, a detective who had been given a case to solve. You then struck out to find true or valid solutions or answers.

In some cases, you are only given a very general subject. It is then your task to find a specific topic or a useful topic to write on for your research. For example, your biology teacher may ask you to write an essay on the health of any region of Florida. You would then have to find a reason to write on the Florida Everglades, or the Atlantic coast, or the Gulf coast, etc. You may decide to write about the Gulf coast because you love to eat shrimp and wonder whether pollution or overfishing are endangering this shellfish. Your history teacher may ask you to choose any aspect of the Civil War to research and write about for a topic. You might choose to

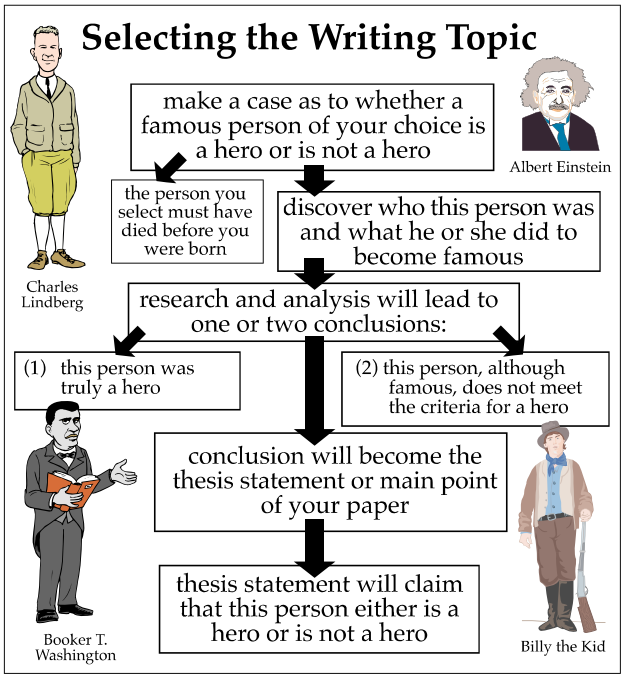
write on those people who went against the majority in the South and fought for the Union army, or those people who went against the majority in the North and fought for the Confederacy, or any one of a hundred other interesting topics.

As you can imagine, choosing your own useful topic takes more effort than being assigned one. However, the extra effort does have its benefits: You get to spend time learning and writing about something that excites your interest.

In this unit you will write a research report on the general topic of American heroes. You, however, will choose the particular American you research and write about for your research report.

Select the Writing Topic: Finding the Famous Person That Excites Your Interest

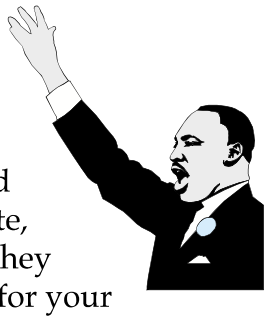
The first step in the writing process is to decide what you are going to write about. This step is called *selecting the writing topic*.



In this unit you will write a research paper that makes a case as to whether a famous person of your choice is a hero or is not a hero. The person you select to study must have died before you were born. (This will ensure that you will find enough material for a research paper on him or her.)

Your research on the person will discover who this person was and what he or she did to become famous. Your research and analysis will lead you to one of two conclusions: Either (1) this person was truly a hero, or (2) this person, although famous, does not meet the **criteria** for a hero.

Your conclusion will become the **thesis statement**, or main point, of your paper. In your thesis statement you will claim that this person either is a hero or is *not* a hero.



History has given us many varieties of heroes. Some were incredibly strong; some were very smart. Some were courageous in the face of adversity. Some, like Martin Luther King, Jr. who championed civil rights and Susan B. Anthony who worked for women's right to vote, were tireless in their efforts to further a cause in which they believed. There are thousands of heroes to choose from for your report.

Rachel Carson is a good example of a hero. She was a tireless worker for a cause in which she believed. She is famous for her book entitled *Silent Spring*. In *Silent Spring,* Carson alerts us to the dangers of pesticides on our environment. Little was known about these chemicals until she used research to show how we are poisoning the earth. Although she was highly criticized for her claims, Carson never quit and was eventually shown to be right.

A good way to choose your topic—or person—is to use one of the following three different strategies:

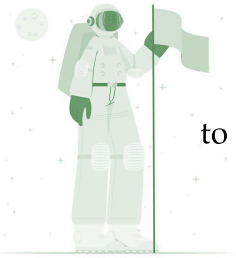
(1) You can choose a person you already know something about. If you've always wanted to know more about this person, now is your chance. Perhaps you want to use your research paper to organize what you already know and will discover into a report.

(2) You can choose a person you know nothing about but have always been curious to know more. Perhaps you have often heard the name George Washington Carver—a famous African-American scientist. Now is your chance to find out just who this famous American is and his place in history. Perhaps you feel that you should know more about the life of Benjamin Franklin. If so, use this project to fill in a gap in your knowledge.

(3) You can go to a book or other **text** about heroes or notable persons and scan the pages until you find someone who intrigues you. Look under

heroes, for instance, in your library's card catalog or computerized catalog. A book on heroes might lead you to scan a chapter on a notable American named Walt Disney. You may become intrigued by this famous person after you find out that Florida's Disney World is named after him.

Using a similar approach, you may want to find out about a hero in a subject or field in which you are interested. For example, perhaps you have always been interested in explorers: those folks who go where no person has gone before. Using "explorers" as a subject or keyword, you are likely to run across works on Lewis and Clark (Meriwether Lewis and William Clark), who charted the Northwest; Admiral Peary, who attempted to reach the North Pole; or Neil Armstrong, the first man to set foot on the moon.



Neil Armstrong

Ask Questions: Creating Guidelines for Your Search

Once you have selected a topic, you are ready for the next step: *gathering information*. Gathering information about a subject is a lot like gathering stones in the desert. If you just started picking up stones, you would end up with an endless number of stones, all different shapes and sizes. However, if you searched only for pale stones that were smooth and about the size of your fist, you would be able to limit the number you collected.

Similarly, you will most likely find many articles, books, tapes, and even videos on your topic. The problem will quickly become not a shortage of information but rather that there is too much information!

Think back to the example of buying a CD player. If you tried to listen to and test every one of the hundreds of players now being sold, your search would likely become a full-time project. However, by limiting the focus of your search, you can quickly narrow the field.

Your search would be just the same if you attempted to find out everything about Rachel Carson. You would end up with heaps of information. The key to an efficient search is to know what your are looking for—*to focus your search*. You don't want to tell readers everything about Carson. You do want to tell readers about "Rachel Carson the hero." The more you can limit your search, the more efficient your search will be from beginning to end. So develop the questions you want to answer.

Begin with the most general question. (Remember: If you were searching for a CD player, your most general question would be, "Which CD player is the best buy?") For this project, the most general question is the following: "Is this person a hero?" Use this question to lead you to another question: "What makes a hero?" To answer this question you must develop criteria. *Criteria* are standards used to evaluate or judge something.

Criteria are a helpful way to analyze something. If you simply asked, "What makes a hero?" and set off for answers, your search would not be very efficient. You would find many facts and ideas about the famous person you selected. If you listed them, you would end up with pages of unorganized data. However, if you break down the general question "What makes a hero?" into more specific questions, you will have questions to guide your search. You will then look for answers to these specific questions. You will be able to organize each fact or idea you find by putting it under the question it helps answer.

The following questions, or criteria, have been developed to help you judge whether the famous person you are researching is a hero.

Qualities of a Hero: Criteria for Evaluating a Famous Person

Question (A): Did this person see himself or herself as being on a *quest* or *mission*, and if so, did this person conduct himself or herself with *honor* and with an internal sense of right and wrong while on this quest or mission?

> Some people have accomplished many things, but they have done so dishonestly. In the 1950s, Senator Joe McCarthy became famous for "hunting" down people he claimed were working to illegally overthrow the government of the United States. He was soon discovered to have accused people unfairly. He often had no or little evidence on which to base his accusations.
>
> Rachel Carson, on the other hand, was highly criticized for her claims about environmental pollution. She did not, however, let people's criticisms and pressures from corporations and the government stop her. Her work was scientific—she had *evidence* for her claims. She felt she was on a mission, and she accomplished her quest with *honesty and dignity*.

Question (B): Did this person have a special *ability* that set him or her apart from most people?

This ability could be, for example, physical. Jackie Robinson, the first African-American baseball player to play in the major leagues, was an extraordinary athlete. This ability could also be intellectual. Albert Einstein was an extraordinary thinker.

Rachel Carson's special ability was *insight*. She saw more clearly than almost anyone else what was happening to the planet Earth. She saw that unless we changed our practices, we would do great harm to our environment.

Question (C): Do we still see this person as a hero?

Some people become more heroic over time. As we look back we may have an even greater appreciation for this person's life and deeds. The person you are researching has been dead for at least 15 years, probably more. Find at least two articles, books, or other items that have been published within the last couple of years. Compare these recent evaluations of this person with evaluations published during or just after his or her lifetime.

Thirty-five years after Rachel Carson's death, she is more appreciated and honored than during her own lifetime. We now know just how accurate her claims were about the environment. In addition, research has shown just how many obstacles she had to overcome in order to discover her findings and then to make them public.

Qualities of a Hero
Criteria for Evaluating a Famous Person

- Did this person see himself or herself as being on a *quest* or *mission*, and if so, did this person conduct himself or herself with *honor* and with an internal sense of right and wrong while on this quest or mission?
- Did this person have a special *ability* that set him or her apart from most people?
- Do we still see this person as a hero?

Note how the three criteria above [(A), (B), and (C)] can be used to structure your essay. The structure of an essay is the way it has been put together or its design.

1. The introductory paragraph is the first paragraph in an essay. It introduces the subject and states the thesis. The thesis statement tells readers the main point of the essay or the claim the essay will support.

2. The body paragraphs support, explain, or illustrate the thesis statement. Each body paragraph focuses on a subtopic. They are, in a way, witnesses that get on the stand and tell readers why the thesis is valid—or why the thesis statement is well-founded and logical.

3. The concluding paragraph is the last paragraph in the essay. It may summarize the essay and bring the writing to a gentle close.

In the essay you will write, the answer to each of the above questions or criteria will serve as the focus of each *body paragraph*. The answer to question (A) will be the focus of paragraph two, the answer to question (B) will be the focus of paragraph three, and question (C) will be the focus of paragraph four. The rest of each paragraph will provide supporting details. You may have more body paragraphs that cover other points that you would like to make about your topic. If so, simply continue to follow the format described for body paragraphs.

As you can see, spending time doing prewriting will save you much time when you begin to write your essay. Without a good plan developed during the prewriting stage, you will just be wandering through your research like…well, like a wanderer in the desert.

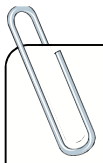
Search for Answers: Finding the Content for Your Report

Now that you know what you are looking for, you can begin your search with confidence. To give yourself a broad picture of this person, read some general articles on him or her. An **encyclopedia** or a biographical dictionary is a good place to begin. You will, no doubt, find some answers in these texts, so keep the questions you want to answer handy.

Then move from the general to the specific. Use your library's card catalog or online catalog, microfilm catalog, and indexes to magazines and newspapers to help you find specific works on your subject. Catalogs and indexes will tell where you can find books, chapters in books, articles, and even multimedia materials on your subject. Most catalogs and indexes include a brief description of the book, article, or other item. Read these

closely. Ask yourself, "Does this sound like a book or article that discusses answers to my questions?" In other words, narrow your search before you begin hauling armloads of books from the stacks or downloading articles from a computer.

Your readers will first need to be introduced to the person you have chosen to write about for your research report. A brief biography will help readers begin to become interested in your subject. The biography should include dates of birth and death. It should also include descriptions of the hero's family, education, and notable accomplishments. As you read about this person, pick out items that are related to the accomplishments that made this person famous or a hero. For example, if Rachel Carson were your subject, some of the biographical information you might have collected include the following:



Rachel Carson:

—born May 27, 1907, western Pennsylvania; died 1964 (*tells the hero's lifespan*)

—grew up several hundred miles from Atlantic Ocean (*surprising information because much of her work is on the ocean and marine life*)

—encouraged by mother to write (*she later went on to write important books on the environment and nature, combining her love for writing with her love of the ocean*)

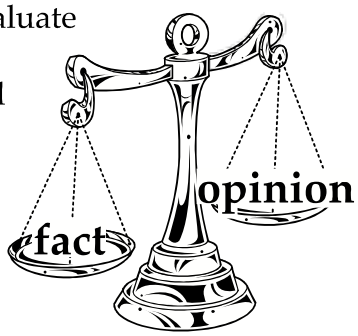
—earned a scholarship to Pennsylvania College for Women in Pittsburgh, Pennsylvania (*without this scholarship, she might not have developed skills to research and write books*)

—published *Silent Spring* in 1962 (*the project that launched her reputation as an environmentalist*)

Any article, book, or other kind of material from which you take information or ideas is called a **source**. A *source* can also be a video, a television program, an interview with a person, or any other text or person from which you get information or ideas. A *reliable source* is one that you have judged to contain truthful and well-researched information, valid or well-reasoned arguments, or that is written by a recognized expert on the subject. A *reliable source* on any topic is an article or book that is carefully researched and written objectively. An unreliable source is any material that does not use careful research or that uses

poorly reasoned arguments. When a classmate passes exaggerated or unfounded stories about another classmate, he or she is an unreliable source.

As you read and do research, you will need to evaluate your sources and judge what is a reliable or trustworthy source and what is not. You will need to determine what is fact and what is opinion in each text. You will very likely use both facts and opinions from sources. However, you will want to be sure that you don't claim that an opinion you found is a fact.



Before using an opinion from a source, you will need to judge whether it is a valid or sound claim. You need to evaluate the evidence used to support an opinion. If there is enough evidence and if the evidence is truthful, then the opinion is valid. If, however, the evidence is scant and is not true, then the opinion is not valid.

Read the two paragraphs on Rachel Carson below taken from two different sources. An analysis follows each. (Note: An *environmentalist* is someone who studies the environment or our surroundings. The *environment* includes the land, the water, even the climate.)

> Rachel Carson was the finest environmentalist of all time. Many people have said so and many books also support this claim. Those closest to her have said that she was a tireless worker. They also have said that her work helped change the way we think and use chemicals on the land. Even her enemies came to fear the strength of Rachel Carson's work.

This paragraph presents a bold opinion about Rachel Carson. This opinion or claim is not necessarily false. However, the writer doesn't present very strong evidence to support this opinion. For example, who are the "Many people" who have said she is the "finest environmentalist of all time"? Which books "support this claim"? How do people know "that her work helped changed the way we think and use chemicals on the land"? And what evidence is there that "her enemies came to fear" her work? All of these things may be true or valid statements, but we the readers have only been given unsupported generalizations. We have not been given specific evidence which we can check.

Now read another paragraph on the same topic. The information in the parentheses directs us to the source of the information. You will learn more about supplying this information later in the unit.

> Rachel Carson was one of the greatest environmentalists in history. As Mary A. McCay writes in her biography of Carson, "No one has represented the interests of the earth more faithfully or better taught its value than Rachel Carson" (108). Carson's book, *Silent Spring*, was on the *New York Times* best seller list within two weeks after its publication. People all across the country paid attention to her warnings, and it was not long before laws were put in place regulating the use of pesticides. In 1972, Paul Brooks published a book about Carson's literary works. As he states in his preface, "one should remember that, in her intense feeling for man's relationship to the living world, she was ahead of her time" (xi). Many chemical corporations and farmers may not appreciate Carson's work, but even they cannot deny her reputation as a sound thinker who used persuasive evidence to make some of the most important arguments of her and our lifetime.

This paragraph also presents a bold opinion. However, unlike the first paragraph, this one uses persuasive evidence to support its opinion or claim. Notice that specific names and people are used. There are no references to just a general and unnamed source. Instead, there are two writers who have studied Carson and her work: Mary A. McCay and Paul Brooks. In addition, readers can also find out if Carson's book was really on the *New York Times* best seller list and whether or not laws were put in place regulating the use of pesticides. Consequently, a researcher can use this writer's claim—"Rachel Carson was one of the greatest environmentalists in history"—with confidence that it has validity.

Find Helpful Sources: Locating Books, Magazine Articles, and Other Sources That Answer Your Questions

Fortunately, over many years, libraries have developed systems to help us locate the books, magazine articles, and other sources that may be helpful to our research.

Find Books: Using the Card Catalog

There are two systems available in most libraries for finding books: the card catalog and the online catalog. The card catalog is usually a large rectangular cabinet that has many small drawers with cards alphabetized from ***A*** to ***Z***.

The *card catalog* provides an alphabetical listing of every book in the library or school media center. Each book is usually cataloged with three different cards: an *author card*, a *title card*, and a *subject card*. Today many public, school, and university libraries have their card catalogs on computer. Computerized or online card catalogs are searched by author, title, and subject also.

> The *author card* is filed alphabetically according to the first letter of the author's last name.
>
> The *title card* is filed alphabetically according to the first word of the title, unless the first word in the title is an article (*a*, *an*, or, *the*). In this case, it is filed alphabetically according to the second word in the title.
>
> The *subject cards* provide all those books in the library which deal with a given topic. These cards are arranged alphabetically by the first word of the subject located at the top center of the subject entry card.

Once you have located a book in the card catalog, the *call number* (Dewey decimal number) classifies the book by its subject area. Copy down the call number and use this number to find the book on the shelves of the library.

Other information found on the card includes a brief description of the book, the publisher, and date of publication.

Let's say, for example, you want to find a book on a person who was a leader of the Civil Rights movement in this country during the 1960s. If you checked the card catalog under "Civil Rights," you would find all of the listings of books the library has on this subject. You might find the following subject card:

Civil Rights—United States	
323.4 D 7373	Douglas, William O. Freedom of the Mind PUBLISHER: Doubleday DATE: 1964 SUBJECTS: Freedom of Speech Civil Rights

If, by chance, you happened to know that William O. Douglas has written a book on this subject, you could have located information on this book by checking its author card:

323.4 D 7373	Douglas, William O. Freedom of the Mind PUBLISHER: Doubleday DATE: 1964 SUBJECTS: Freedom of Speech Civil Rights

If, by chance you knew the title of the book, you could have located information on this book by checking its title card:

	Freedom of the Mind
323.4 D 7373	Douglas, William O. PUBLISHER: Doubleday DATE: 1964 SUBJECTS: Freedom of Speech Civil Rights

Notice that on the subject, author, and title card, the numbers in the left margin are the same. In this example, the *call number*, 323.4 D 7373, directs you to the location of the book. In this example, you would look for the stack that had 323.4. Once you located the right stack, you would find this book shelved by its number. It would be between a book with the call number 323.39 and a book with the call number 323.41.

If you wanted to find the book *Silent Spring* written by Rachel Carson, you could find it either by checking the right subject, author, or title card. If you did not know either the author or title, you would run across this book under the subject of "Environment." If you did not know the author but knew the title, you could find the title card (*Silent Spring*) listed alphabetically. If you only knew the author, you could locate this book by finding the author card, listed alphabetically as "Carson, Rachel."

Find Books: Using the Online Catalog

Most libraries now have their materials listed on an online catalog. The online catalog is computerized and speeds up locating materials. Most computerized catalogs will permit you to search either for books or for periodicals (magazines and journals). If you are searching for a book, you will be able to search according to the author, the title, or the subject—the same options you have when using the card catalog. The online catalog, however, also permits you to search using a *keyword*. You can search using only a part of the title or author's name.

As a general rule, use only the major key words when doing a keyword search. Insignificant or common words (such as *the*, *with*, *from*) will only slow down the search by requiring the computer to retrieve and compare thousands of entries. Words of one- or two- characters (such as *an*, *be*, *of*, *to*) are not processed, so it is a waste of time to enter them. For instance, if you wanted to look up information on The French Revolution, you would not include the word "the."

If you are unsure of the spelling of a word, you may shorten or truncate it anywhere after the first three letters by using an asterisk (*). Truncation can also be used to include more word forms: comput* will bring up computer, computers and computing.

Some online catalogs can even be accessed through the Internet. This will make it possible for you to know exactly what you want before you even go to the library. Once you've found the books or periodicals that you

want to find, you'll need to use a library map or ask the librarian where to find those particular call numbers.

The Internet has its own language—terms and phrases that are used to describe applications and other items common to this system. Please refer to pages 10-11 in "Unit 1: Online Technology—Using the World Wide Web" for more search engine information. The following are a few definitions that will help you when you research your topic on the Internet.

Browser: A software program on an individual computer used to view various Internet resources. *Netscape* is an example of a browser.

Search Engine: A program that connects you to a database of web sites and Internet resources. Enter a topic or keyword(s) and a search engine will locate the databases or listing that may contain the information you want to find.

Uniform Resource Locator (URL): The standard way to give the address of any resource on the Internet that is part of WWW. A URL looks like this: http://www.yahoo.com OR ftp://ftp.netscape.com.

World Wide Web (WWW): The entire collection of Internet resources that can be accessed (including text, graphics, sound files, etc.) using web browsing material.

Colleges, universities, and many public libraries use LUIS online system for searching. Schools, kindergarten through high school, use a system called SUNLINK which allows access to resources across the state. SUNLINK can be accessed using the World Wide Web. The URL for SUNLINK is as follows: http://www.sunlink.ucf.edu.

You can search for materials in a single school location on the World Wide Web, or you can search your district, region, or entire state. To search for information, enter any information you know about the materials you need, then click on "find it." If you only know the first name of an author and one or two words of the title, enter that in the appropriate boxes and SUNLINK will do the work. SUNLINK on the web allows you to search by format, language, and/or location. Remember: As a general rule, use only the main key words when doing a "power search."

Nonprint materials can also be located in SUNLINK. A format search can be done alone or in combination with entries or the author, title, subject, and/or anyword lines in the keyword/Boolean search screen. The code for the format you wish to locate must be entered on the FORMAT/LANG search line. Here are some of the valid format codes for SUNLINK:

- books—fam
- computer software—fmx
- kits—fox
- maps—fex
- musical records—fjx
- poster and prints—fkx
- spoken recordings—fix
- videos and recordings—fgx

Find Articles: Using the *Reader's Guide to Periodical Literature*

There are many different ways to find articles that have been published on your subject. However, the *Reader's Guide to Periodical Literature* has one of the most complete and helpful listings available to you. The *Reader's Guide* lists articles that have very recently been published and those that were published long ago. In addition, it is available in the reference section of most libraries or on CD-ROM.

Like the card catalog, the *Reader's Guide to Periodical Literature* is an index—it lists articles that have been published in periodicals. *Periodicals* are magazines and journals. The *Reader's Guide* has many volumes. Each volume covers a year or a span of years. All articles are listed according to subject and author. A subject could be something quite general, such as "civil rights movements." A subject can also be a person; for example, Rachel Carson. If you looked under the subject "Rachel Carson," you would find articles that have been written about Rachel Carson. If you wanted an article written by a particular author, such as Philip Sterling, then you would check Sterling, Philip.

The *Reader's Guide* will tell you, among other details, the name of an article, the magazine or journal where it can be found, and a brief description of the article's subject or content. Before heading for the *Reader's Guide*, take a list of all the magazines and journals your library carries. This will help you save time. You only want to copy down the information on articles *if* your library has the magazine or journal in which it is published.

Using Indexes to Find Magazine Articles

The *Reader's Guide to Periodical Literature* is an author-subject index to selected popular periodicals published in the United States. Many other periodical indexes are also available in a variety of subject areas. When doing a research report, however, this index is a good place to begin finding recent articles published in magazines on a topic.

At the front of each *Reader's Guide* issue is a list of the publications included in the *Reader's Guide,* as well as a key to the abbreviations used in the listing. If you are doing a research report on videotapes, for example, you would look under that heading in the alphabetical listing of topics. A sample entry in the *Reader's Guide* might look like the listing below.

> Videotapes
>
> Tube Food. il Hi Fi 31:A15Mr; A10-A12 My: A4 Je; 56 O '90

The following will explain each part of the example:

Tube Food is the title of the article.

il means that the article is illustrated or has a picture with it.

Hi Fi is the abbreviation of the name of the magazine in which the article appears: *High Fidelity*.

31 is the number of the volume of the magazine.

A15 is the page on which the article starts.

Mr names the month of the magazine—March.

A10-A12 My is another article from a different issue of the magazine. The article is found on pages A10-A12 in the May edition of *High Fidelity* magazine.

A4 Je is a third article from the same magazine on the same subject. The article is found on page A4 of the June issue of the magazine.

56 O means a fourth article is found in the same magazine, but in the October issue, starting on page 56.

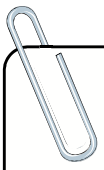
'90 means all four of these issues were published in the year 1990.

Sometimes a listing will say *See Also* at the beginning, which means that there are other listings under which you may look for additional information. Sometimes a listing will say *see* at the beginning. In this case, you must look under the topics listed to find information on your topic.

Additional Reference Books: Finding Answers and Overviews Fast

You have most likely spent some time in the reference section of your school or local library. This section is filled with books and volumes that provide information. Any index, such as the *Reader's Guide to Periodical Literature*, is a reference book. We *refer* to it for information. Encyclopedias are also reference books, as are **atlases**, **almanacs**, and dictionaries. As you may have noticed, these particular books and volumes *cannot* be checked out of the library.

The following are some reference books you might find helpful in writing your research report:



Biography Index is a cumulative index (or listing) of biographical material in books and magazines.

Dictionary of American Biography contains short biographies of more than 13,600 Americans who are no longer living.

Bartlett's Familiar Quotation contains thousands of quotations. The quotations are arranged in chronological order, from the distant past to the present. You may want to scan this reference work for an interesting quotation and then see whether the person who said it would make a good subject for your essay.

Notable American Women 1607-1950 is a biographical dictionary containing sketches of more than 1,350 women.

Who's Who in America—1998 is a biographical dictionary of notable living men and women.

Who Was Who in America (2 vol -1607) is a biographical dictionary of notable nonliving men and women.

There is also a *Guide to Reference Books* published by the American Library Association which lists and describes general reference books of all kinds from around the world.

The reference works listed above could be especially helpful to you as you begin to work on your research report. However, biographical reference

works are just one of many kinds of reference works you will find in your library. The following are some of the most used reference works:

General Encyclopedias provide articles on a wide range of subjects. The articles are intended as introductions to their subjects. Articles are listed alphabetically by subject. Some of the more commonly found encyclopedias include the following:

- *Collier's Encyclopedia*
- *Encyclopedia Americana*
- *The New Encyclopedia Britannica*

There are also *specialized encyclopedias* in your library. This type of encyclopedia focuses on a particular subject or area of study. These reference works will include introductory articles as well as more in-depth articles. If you are unfamiliar with a subject, a good way to use encyclopedias is first to use a general encyclopedia and then go to a specialized encyclopedia. The following are some of the specialized encyclopedias available:

- *Encyclopedia of Anthropology*
- *Encyclopedia of Biological Sciences*
- *Encyclopedia of Crime and Justice*
- *The Encyclopedia of Philosophy*
- *Encyclopedia of Psychology*
- *Reference Encyclopedia of the American Indian*

Atlases are a collection of maps bound together. An atlas can include many different types of maps. It may contain maps showing the topography of different areas or regions. It may contain maps showing the roads of different cities, states, or countries. It may even contain maps showing the per capita income, or the average amount of money earned by people in different areas or regions.

Almanacs are published yearly and contain information about a particular year. The range of information found in an almanac is quite wide and includes weather, politics, world events, sports, and economics, to name just a few.

Manage Information: Organizing Your Findings

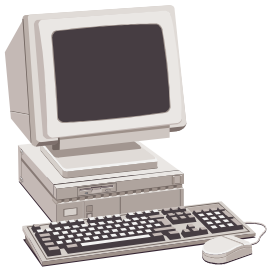
During your search for answers, you will gather many pieces of information. The kind of system you use for managing the information you gather will make the difference between using your time efficiently or finding yourself flipping aimlessly through piles of hard-to-use notes.

Store Information: Three Ways to Record Your Findings

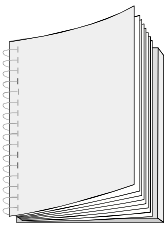
People who have been doing research for a long time often develop their own systems of storing information. Most, however, begin with one of the three time-tested methods. Three of the best ways to store the information you gather are (1) on 3X5-inch notecards, (2) in a spiral notebook, or (3) on a computer. Each has its advantages and disadvantages. Notecards permit you to put one piece of information on each card. They can then be shuffled into organization when it comes time to write a draft of your paper. However, notecards are easy to lose. A research notebook holds your information in one place and is easy to carry. You may eventually need to tear the sheets out to organize them, and scraps of paper are harder to shuffle and manipulate than notecards. Shuffling—*cutting* and *pasting*—is easy on a computer. Unfortunately, most computers are not portable.

Three of the Best Ways to Store Your Information

1. 3X5-inch notecards



2. spiral notebook



3. computer

Store your information in bits; one piece of information to a notecard or to a section of a page in a notebook or computer file. Each entry must also include the source from which you borrowed the piece of information. Identifying the source is known as *documenting the source* or *citing the source*. If you do not cite a source and give credit where credit is due in your report, you are, in effect, stealing the information. To steal an idea or bit of information is called ***plagiarism***. It is a serious offense, as is any form of theft.