Ready, Set, Research!
with Britannica Student Encyclopedia
Reproducible Masters Grades 3 and Up

1. Planning
2. Gathering Information
3. Recording and Organizing Facts
4. Evaluating Information
5. Making a Presentation
Ready, Set, Research!

with Britannica® Student Encyclopedia

Reproducible Masters Grades 3 and Up
This book contains reproducible masters for classroom use only.

Ready, Set, Research!
with Britannica® Student Encyclopedia

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Teacher’s Notes

Ready, Set, Research! is a set of reproducible masters that will help you guide your students through the research process for writing papers or making oral presentations. Examples and references from the Britannica Student Encyclopedia and the Britannica Elementary Web site (http://school.eb.com/elementary) reinforce the concepts presented in these pages.

USING READY, SET, RESEARCH!
Ready, Set, Research! is organized using a five-step approach. Each step is introduced in a separate lesson. For each lesson students are given an opportunity to practice the skills they have learned.

You and your students can use the evaluation chart on page 27 to assess the students’ understanding of the research process.

THE RESEARCH STEPS

Step 1
Planning
Step 1 helps students prepare for an assignment by making sure they understand the assignment and by teaching them to plan their time. It also helps students learn to refine a topic by brainstorming, learning to make an idea web, and creating subtopics.

Step 2
Gathering Information
Step 2 teaches students where to go for information (including both libraries and Internet sites), how to use reference books, and how to skim and scan for information.

Step 3
Recording and Organizing Facts
Step 3 introduces procedures for taking notes, summarizing, citing sources (in footnotes and bibliographies), and writing an outline.

Step 4
Evaluating Information
Step 4 teaches students how to decide if a topic has been covered, find extra sources, and evaluate the information they have gathered.

Step 5
Making a Presentation
Step 5 provides guidelines for making either a written report or an oral presentation. For a written report the guidelines include: organizing main ideas, writing a draft, reviewing, revising, and creating a final copy. For an oral presentation the guidelines include creating note cards, practicing, and using visual aids.

GRADE LEVEL
This research guide is designed for students in grades 3 and up. The approach reflects the curricula and study skills for these grades.
STYLE AND STANDARDS
Formats for elements such as footnotes, bibliographies, and outlines are based on the Modern Language Association (MLA) style.

The five steps meet educational standards in language arts and technology for conducting research.

VOCABULARY DEVELOPMENT
Throughout this guide key words are listed in vocabulary boxes. All vocabulary is listed and defined in a final Glossary on page 28. You may want to use this Glossary to review words and definitions with your students.

TEACHER TIPS
• You can vary the learning dynamic by having students work through the activities by themselves, in pairs, or in small groups.

• Have your students do the activities with a view to presenting their results to the class; for example, they can create the idea web on page 3 on poster board. When they are finished, they can point to the idea web and explain it to the class.

• Use the highlighted vocabulary words in various ways.

a. Give definitions and have students call out the words.

b. Call out a word and have a volunteer give a definition in the context of the lesson.

c. When your students have completed Step 2 and have accumulated a number of words, you might have a spelling bee.

d. Create word search or crossword puzzles with the words.

e. Have students keep a word list of additional vocabulary they’ve learned while completing the lessons and activities.
For Parents and Guardians

Ready, Set, Research! is designed to guide your child through the planning, preparation, and completion of a research project. The process is organized into five steps: planning, gathering information, recording and organizing facts, evaluating information, and making a presentation. Each step is presented in a lesson followed by at least one activity that reinforces the concepts presented in the lesson. You can help your child by understanding each step and giving assistance and encouragement when appropriate.

Here are a few things you can do to help when your child is working with Ready, Set, Research!:

• Ask your child to summarize what he or she has learned from each lesson.

• Have your child describe the activity for each lesson.

• Encourage your child to use the checklist presented in the students’ introduction to track progress and comprehension of the process.

• Ask to see the results of each activity.

• Ask your child to name and define the highlighted vocabulary words.

The skills taught in Ready, Set, Research! will help your child with research projects of all kinds. Here are some things you can do to help when your child is working on a research project:

• Understand the topic.

• Think of ways to encourage your child’s interest in the topic.

• Find out what resources the teacher has suggested using, and try to steer your child to other appropriate resources.

• Understand the nature of the project. Ask, is my child working alone, with a partner, or in a group? What is my child’s role in the partnership or group?

• Understand what is required for the final presentation: a written paper, an oral presentation, a multimedia presentation, or a creative project.

• Find out the final due date of the project as well as the due date of interim steps, including topic selection, outline, note cards, or a first draft.

• Help your child create a schedule for the various steps of the research project.

• Understand the criteria by which your child will be assessed.
Welcome to Ready, Set, Research!
Get ready to have a great time learning how to do research.

Well, it’s finding information about things—almost like a detective who has to investigate a crime. He or she has to find clues, talk to people, get the facts, and then use all the information to reach a conclusion. You are going to be a bit like that detective. The only difference is that you are going to reach a conclusion about an interesting subject or topic that your teacher wants you to explore or that you choose to explore.

For any research project there are certain steps you can follow to help you through the process. So what are these “steps”? Well, here they are. Each time you have to do research, check to be sure you can say “Yes” to the following statements for each step.

**Step 1**
Planning
- I have a topic.
- I know what is required.
- I can make an idea web.
- I know what resources my teacher has asked me to use.
- I have a schedule.

**Step 2**
Gathering Information
- I can find information in books, encyclopedias, magazines, and newspapers in the library.
- I can find information online.
- I know how to use a table of contents and an index.

**Step 3**
Recording and Organizing Facts
- I can find information about my topic.
- I can take notes.
- I can organize my notes.
- I can write source information like footnotes and a bibliography.
- I can write an outline.

**Step 4**
Evaluating Information
- I know how to decide if I have learned new information about my topic.
- I know how to make conclusions about my topic.

**Step 5**
Making a Presentation
- I can organize my main ideas and write a draft of my presentation.
- I can review and revise.
- I can create my final presentation: written, oral, or multimedia.
Step 1

Planning

Your teacher has given you a research assignment. Are you ready to get started? The basic research steps outlined on the “For Students” page will serve as your guide. Once you learn these steps, you will be able to write about almost anything.

The first thing you need to get started is to make sure you know what you have to do. Here are some questions to ask:

- Am I supposed to write a report or prepare a presentation?
- How many and what kinds of research resources does my teacher require?
- What will my teacher use to assess my work?
- What is the topic, or subject, of the assignment? That is, what will I be researching?
- Has your teacher assigned you or the class a specific topic to research? For example, is everyone doing an assignment about the state you live in?
- Has your teacher asked you to choose a topic in a particular subject? For example, is everyone choosing an endangered animal to research?
- Has your teacher asked you to choose from an assigned list of topics?
- Or, has your teacher asked you to pick a topic on your own?

If you get to choose your own topic, pick something that interests you and that you would like to learn more about.

You also need to find out when the assignment is supposed to be done. As soon as you find that out, you should make a schedule. A schedule is a list of all the tasks you have to do and when they need to be done. As you go through all the steps, list each specific task and the date each task must be completed. This way you can be sure to get everything done in time.

Vocabulary Highlights

resource
schedule
topic
Topic and Subtopics
Once you have a topic, it’s a good idea to first write down some general ideas about the topic.

There are a couple of ways to get ideas. You can come up with some ideas on your own by just giving it some thought, or by remembering an interesting book or article you read. You can also “brainstorm” ideas with other students. That means, you and some other students get together and talk about all the ideas that apply to your topic.

Set a time limit, maybe 20 minutes or so, and write down all the related ideas you all come up with.

One way of organizing ideas is to use an idea web. An idea web shows your topic (the main subject) and subtopics. Subtopics are ideas related to the main topic that you think are important. For example, if you have the main topic of weather, your first level of subtopics can be: types of storms and types of climates.

Each of these can also have subtopics. Subtopics under types of storms can be rainstorms, snowstorms, tornadoes, and so on. Look at the idea web below and see how the ideas are organized.
Activity Page

Now it’s your turn to make an idea web. Your topic is music. Work on your own or brainstorm with other students to come up with subtopics and make a list of them on the right. Then organize your subtopics and fill in the idea web below. Try to think of three subtopics for the main topic and then one subtopic for each of the first level subtopics.

1. _________________________
2. _________________________
3. _________________________
4. _________________________
5. _________________________
6. _________________________

Main Topic

Music

Subtopic

_____________________

Subtopic

_____________________

Subtopic

_____________________
Gathering Information

Think about your topic. Write down questions about what you want to learn about the subject. What kinds of information will you need? Think about what you already know about the subject. Where do you think you will find more information about it?

Finding Resources in the Library

A good place to start your research is at the library. You can try the library at your school or a public library in your town. There are many kinds of resources you can find there, and if you need help, there’s a librarian, too!

Libraries have traditional materials including books, reference materials, and periodicals such as magazines and newspapers. You can also find electronic materials in the library including online databases and access to computers connected to the Internet.

Books and reference materials

In the library, books are usually arranged by subject. You can use the card catalog, or online catalog, to search for books about your topic by the subject, the title of the book, or the name of an author. Libraries use the Dewey Decimal System to classify books in the catalog. For every subject category, the Dewey Decimal System assigns a number that is at least three digits long. For example, all of the books about birds start with the number 598.

Exploring the reference section is another good place to start. You will find encyclopedias there that are full of articles on a great number of topics.

Other reference books that may be helpful are dictionaries and atlases, or collections of maps.

Magazines and newspapers

In the library, you can also find a periodicals section that has magazines and newspapers, both old and new. Sometimes these materials have been put into computer databases, too, for easy searching.

Vocabulary Highlights

catalog
database
Dewey Decimal System
periodicals
Ready, Set, Research!

Using Books
Once you have found a book on your topic, there are several ways to find out if it has the information you need. You don’t want to stop and read everything at first. Instead, you can use a method called skimming and scanning.

Skimming is looking at a page very quickly for just the important points and for main ideas. You use skimming when you want to see if the information on a page will help you in your research.

Scanning is searching for specific words, phrases, or numbers on a page. You may want to look for a particular word, or just a name, date, or place, so you scan the page just for that.

Table of Contents and Index
The best way to see if a book you found is going to be helpful to you is to look at the table of contents and the index.

Table of Contents
The table of contents at the front of the book tells you what subjects you will find in each chapter. Each chapter number and title is given along with the number of the first page of the chapter. So it’s very easy to turn to the chapter you want.

Index
The index is usually found at the end of the book. It is a list of all the topics and subtopics in a book. It is very easy to find what you’re looking for in an index because all the words are in alphabetical order. Next to each word in the index are all the page numbers in the book where you can find that word.

Vocabulary Highlights
index
skimming and scanning
table of contents
Activity Page

Now let's see what you can find using this table of contents from Britannica’s *New Views of the Solar System*, a book about science. Use the table of contents below to answer the questions on the right.

1. Which chapter follows the chapter about dwarf planets?

2. What page would you go to if you were doing a report on the planet Mercury?

3. In which chapter in this book would you find information for a report about Mars?

4. Where would you look up a subtopic that is not listed here?

5. What would you be reading about if you turned to page 52?
Activity Page

Here’s part of the index from the Britannica Student Encyclopedia. Use it to answer the questions in column 2.

1. In what volume could you read about zebras?

2. What are two articles that you can read about that are related to the topic of Emiliano Zapata?

3. In which volume would you find a picture of the Zambezi River?

4. In which article will you find information about Zanzibar?

5. Who was Zeami, and where can you find information about him?
Ready, Set, Research!

Using Reference Books

Encyclopedias and other reference books have indexes and tables of contents as well. But they also have other special features that can help you find information. Such features include fact boxes, pictures with captions, and cross-references.

Look at the sample from the *Britannica Student Encyclopedia* below for some of the key features of a page.

### Vocabulary Highlights

**Caption**
- Information about a picture

**Cross-reference**
- A list of other articles to read

**Fact box**
- Images and text that provide quick facts or additional information

**Reference book**
- A book that provides information on a wide range of topics

**Special features**
- Images and text that provide quick facts or additional information

**Title**
- Main topic of the article

**Subheads**
- Subtopics of the article

**Page heads**
- Information such as the title of the book, the article name, and page number

**Captions**
- Information about a picture

---

**Montana**

- The U.S. state of Montana got its name from the Spanish word for “mountain.” The Rocky Mountains cover most of the state, and the state capital is Helena.

- **Geography:** Montana is located in the north-central region of the United States. Montana is bordered on the north by the Canadian provinces of Saskatchewan, Alberta, and British Columbia. To the east is the U.S. state of North Dakota, to the south is Idaho, and to the west is Wyoming.

- **People:** Montana is one of the most sparsely populated states in the U.S. About 115,000 people live in Montana, making it the least populous state. The capital city is Helena.

- **History:** Montana was a territory that included parts of several present-day states, including Idaho, Wyoming, and Utah.

- **Economy:** Montana’s economy is based on agriculture, mining, and tourism. The state is known for its秀丽的自然风光，and the economy is diversified.

---

**Cross-references**
- A list of other articles to read

---

**Caption**
- Information about a picture

---

**Special features**
- Images and text that provide quick facts or additional information

---

**Fact box**
- Images and text that provide quick facts or additional information

---

**Reference book**
- A book that provides information on a wide range of topics

---

**Title**
- Main topic of the article

---

**Subheads**
- Subtopics of the article

---

**Page heads**
- Information such as the title of the book, the article name, and page number
Ready, Set, Research!

Activity Page

Here is your chance to get used to working with an encyclopedia. Look at the Britannica Student Encyclopedia page below. Identify the features of the page so that you can answer the questions.

1. What is the main topic of the article?

2. What are the subtopics?

3. What information does the caption give you about the picture?

4. Are there any special features on the page that provide quick facts about the topic?

5. What other information is given that’s related to the topic that you might like to explore?
Finding Resources Online
In addition to books and reference materials you may want to use the Internet for your assignment. Check with your teacher to see what Internet sites you may use. Your school may use only certain sites, such as the Britannica Elementary Web site, or it may allow you to search many sites. If you are allowed to do a general search online, you’ll see that you get many Web links as a result. Narrowing these links down to the sites that are good for you can be a time-consuming task.

You have to decide if the site has the information you need. You also have to decide if the site is one that can be trusted. There is a lot of information out on the World Wide Web. Some of it is true, and some of it is not true. When using the Internet for research, you need to be careful and know where the information is coming from.

Here are some things to think about to help you decide whether or not a particular site can be trusted.

* Can you find the information that’s on the Web site in any other source?

* Is the site well written and free of errors? It should not have obvious errors such as words that are spelled incorrectly or words that are missing.

* Can you tell who wrote it and what their qualifications are? The writer should be a teacher or someone else who has authority, or who knows about the subject.

* Does the Web site or information have a date? You might find a note on the site that says “Last Updated on...”. Is the date current, or is it outdated?

* Does the site give many different points of view or does the author make certain points stand out? A good site for a research project should be objective. That means it should give facts and not opinions and it should not take sides on a subject that people might disagree about.

Vocabulary Highlights

authority
objective
Web site

Step 2
Gathering Information
Ready, Set, Research!

Using Online Resources
Web pages are sometimes similar to book pages. You’ll often find a title of the article, headings, pictures, and links to other pages for additional information.

Here’s a sample Web page from the Britannica Elementary Web site about dinosaurs. See the features identified that will help you research.

- Title
- Table of contents
- Search for topics
- Ways of sharing the article with others
- Sources of additional information
- Images related to the main topic
- Subheads that break the article into sections by topics
- Links to articles with further information

For 150 million years, during a period of the Earth's history called the Mesozoic era, dinosaurs were the main land animals on Earth. Dinosaurs were so dominant that the Mesozoic era was called the Age of Dinosaurs. Their name comes from the Greek words deinos, meaning "fearfully great," and sauros, meaning "lizard." The dinosaurs died out at the end of the Mesozoic era, some 65 million years ago. They were reptiles, but they are believed to be the ancestors of modern birds.

Dinosaur fossils, or remains, were first discovered in the early 1800s. After studying several of these remains a scientist named Richard Owen realized that the bones represented a group of large reptiles that were unlike any living varieties. In a report written in 1842 he called them Dinosaurs. Since these early finds, more than 1,000 different sites containing dinosaur fossils have been uncovered around the world.

When and Where Dinosaurs Lived
The Mesozoic era began about 248 million years ago and ended about 65 million years ago. It was divided into three different periods: the Triassic period (248 to 206 million years ago); the Jurassic period (206 to 144 million years ago); and the Cretaceous period (144 to 65 million years ago). The oldest known dinosaur, the Eoraptor, lived during the...
Step 3: Recording and Organizing Facts

Taking Notes
Once you have found the books and Web sites that you will use for your assignment, you have to start reading them. It is hard to remember everything you read. That's why it is important to take notes as you read. Your notes will help you keep track of the source of your information and of the facts as you gather them.

Index cards are handy for taking notes. You can write one or two sentences of information on each card. Then, later, you can organize the cards to help you organize how you will present the information for your topic.

Your notes don't have to be complete sentences, or even complete words, as long as what you write will make sense to you later. Think of how you use abbreviations when you text message. How you take notes is similar to writing text messages. If something seems important or interesting to you, you can write some notes. Later, you will decide which of the notes to use in your project. Be sure to use your own words when taking notes.

If you copy any information exactly, you will need to make sure you make a note of that.

Be sure to keep track of the sources of your information. Write the name of the publication, author(s), publisher, and page numbers on an index card. Label that card with a number. Then, write that number on all the index cards with notes you took from that source. That way, you will be able to link each note with its source later on.

Another way to take notes is to type them into a file on the computer. Later, you can print and organize your notes into the order you want to present your information.

Vocabulary Highlights
- abbreviations
- index cards
- publication
- publisher
Here's an example of how you can take notes using note cards. Read the text of the article on the Eiffel Tower in the *Britannica Student Encyclopedia* in column 2 and then read the notes. Can you find the note information in the text?

### Eiffel Tower

The Eiffel Tower in Paris, France, is among the most famous landmarks in the world. Known as the Tour Eiffel in French, the tower was designed and built by the French engineer Gustave Eiffel in 1889.

The three-level tower is 984 feet (300 meters) tall. Glass-walled elevators and stairs lead up to the first and second platforms. Other elevators go from the second level to the third platform near the top. Along with viewing areas, the tower has restaurants, a museum, and a souvenir shop.

The Eiffel Tower is the result of a contest held by the French government. At the time the government was organizing a fair to celebrate the 100-year anniversary of the start of the French Revolution. Eiffel's plan was chosen from more than 100 plans, though many people criticized the plan because nothing like it had ever been built before.

After the fair ended, the Eiffel Tower was almost torn down several times. But Eiffel oversaw changes to the structure that made it more useful. Among them were the additions of a weather station in 1890 and a military telegraph station in 1903. The tower is now a popular tourist attraction.

<table>
<thead>
<tr>
<th>Main Idea: Eiffel Tower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fact #1</td>
</tr>
<tr>
<td>Tower is a popular tourist attraction in Paris, France</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fact #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designed by Gustave Eiffel</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fact #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built as the result of a contest</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fact #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has viewing areas, restaurants, museum, and gift shop</td>
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</tbody>
</table>
Ready, Set, Research!

<table>
<thead>
<tr>
<th>Activity Page</th>
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<tbody>
<tr>
<td>Read this selection from the <em>Britannica Student Encyclopedia</em>. Write down the main idea and four facts that support or help to explain the main idea.</td>
</tr>
</tbody>
</table>

**Equator**

The equator is an imaginary circle around Earth. It divides Earth into two equal parts: the Northern Hemisphere and the Southern Hemisphere. It runs east and west halfway between the North and South poles. The distance around the equator is about 24,900 miles (40,000 kilometers).

The equator appears on maps and globes. It is the starting point for the measuring system called latitude. Latitude is a system of imaginary east-west lines, called parallels, that circle Earth parallel to the equator. Parallels are used to measure distances in degrees north or south of the equator. The latitude of the equator is zero degrees.

**Main Idea:**

<table>
<thead>
<tr>
<th>Fact #1:</th>
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<th>Fact #2:</th>
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<th>Fact #3:</th>
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<th>Fact #4:</th>
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</table>
Collecting and Citing Source Information
When you write a research paper, you may NOT copy another person’s words and pretend that those words are yours. That’s called plagiarism, and it’s stealing. If you do want to use another person's words, you must include quotation marks around those words.

You must also write down where the words came from. This is called giving credit to the original author. You need to keep track of all the sources you used to do your research, even if you did not use the words of the source directly.

There are several different ways to tell people what sources you used: footnotes, endnotes, and bibliography.

Footnotes and endnotes
Putting the information at the bottom of a page is called a footnote. If you use a quotation from a source, you should write a little number just after the end quotation marks in the text of your report. You then put the same number at the bottom of the page and write the information about the source after that. The footnote should look like this, for example:


If your teacher wants you to save all your citations for the end of your paper, this is called endnotes. You follow the same procedure for numbering and include the information at the very end.
Bibliography and citing different sources
A bibliography is a list of all the places where you got your information. It includes books, newspapers, Web sites, and conversations with people. The sources are listed in alphabetical order. Different types of sources are cited differently. Here are three common types.

∗ A book by a single author:
Author’s last name and first name, book title, place of publication, publisher, year of publication, page(s) used.


∗ A book by more than one author:
List the authors in the order given in the book, not necessarily in alphabetical order. Only the first author is listed with the last name before the first name, then book title, place of publication, publisher, year of publication, page(s) used.


∗ An article in a reference book:
Article name in quotations, reference title, year of edition.
For example, to cite the page on Montana you would write:


There are several different ways to cite information from Web sites. Here is one common form:

Author’s first name and last name, article name in quotations, information about the electronic publication. Date of access, URL information in angle quotes.

For example, to cite the Britannica Elementary Web page on North America you would write:


These are some common ways of citing sources. But your teacher might want you to use a different way. Check with your teacher to find out how he or she wants you to cite sources for each assignment.
Making an Outline

You're getting closer to creating your final presentation, whether it's a written report or an oral presentation. An outline will make your life easier because it will help you to organize your presentation logically. But what is an outline? There are two types of outlines. An informal outline and a formal outline.

An informal outline is just a list of things you want to include from your brainstorming. You may number the items in the list, but it’s not organized in a detail manner.

A formal outline is a list organized in a number and letter system, starting with a capital Roman numeral. (Note: A Roman numeral is a number expressed using the letters I, V, X, L, C, D, and M.) You can have as many numbers and letters as you need to list facts. Because an outline format is so simple, you can change the order easily before you actually start to write.

The outline helps you to put like ideas together so you don’t jump from one subtopic to the next. A formal outline looks like this:

Title: This is your Main Topic

I. Subtopic Idea #1
   A. Fact #1
      1. Detail #1 of Fact #1
      2. Detail #2 of Fact #1
         a. Information for Detail #2
         b. Information for Detail #2
         c. Information for Detail #2
   B. Fact #2

II. Subtopic Idea #2
   ...and so on.

Any section that is divided into another part must have at least two parts. What that means is, if there is an A, there should be at least a B. If there’s a 1 there should be at least a 2.

Vocabulary Highlights

- formal
- informal
- logically
- Roman numeral
Ecology

Ecology is the study of the relationships between living things and their surroundings, or environment. Scientists who work in ecology are called ecologists. Ecologists examine how living things depend on one another for survival. They also study how living things use such natural resources as air, soil, and water to stay alive.

Some ecologists work in laboratories. Laboratory experiments allow ecologists to study things under controlled conditions. For instance, they can experiment to see how plants react to different amounts of light or water. Such studies are harder in a natural setting because weather and other natural conditions cannot be controlled.

However, many ecologists do work in natural, outdoor settings. They look at all the different factors that affect ecosystems, or communities of living things. Studies in the outdoors are useful because they show what is actually happening in the environment.

Ecology is important because it shows how changes in the environment affect the survival of living things. For example, when pollution kills certain living things, the animals that feed on them also may die. The work of ecologists has convinced many people to protect the environment and all the ecosystems that it supports.

Activity Page

Using this selection from the Britannica Student Encyclopedia, create an outline of the main facts. Take notes on a separate piece of paper first if you need to. See if you can think of two details for each fact.

Title:

I. ____________________________
   A. __________________________
      1. _________________________
      2. _________________________
   B. __________________________
      1. _________________________
      2. _________________________

II. ____________________________
   A. __________________________
      1. _________________________
      2. _________________________
   B. __________________________
      1. _________________________
      2. _________________________
Evaluating Information

Once you have completed your idea web, done your initial research, and made an outline, you’re ready to read through everything and see if you have best covered your topic.

Here are a couple of questions you can ask yourself:

* Do I have enough information to make the main topic clear to the reader?
* Have I used the resources my teacher asked me to?
* Have I answered my questions about the topic?
* Have I learned new information about the topic? A yes answer means you have done a good job. If you haven't learned anything new, check your idea web and see what you can add.

Making Conclusions

When you get to the end of your research you should be able to make a judgment or a decision about your topic. From your outline and everything you have learned since you started to work on this project you can decide what is the most important idea about your topic.

This should be the starting point for your report or presentation.

For example, if your topic is cells, you may have learned many facts about cells. These might include:

- All living things are made of at least one cell.
- Plant cells and animal cells have different structures.
- All cells have a nucleus, cytoplasm, and other parts.

After evaluating these facts you might conclude that the most important thing to know about cells is that all living organisms are created of at least one cell.

Sometimes you may be asked to tell your personal opinion about the subject of your project. If you are doing an assignment about elections, after researching the topic you might make a personal conclusion about whether or not voting is a good way to choose a leader.

Although this isn't a factual conclusion, you still needed to do research in order to come up with that opinion. You will have to decide which are the most important points that you learned in order to reach a conclusion or to form an opinion.
**Activity Page**

Read the selections from the *Britannica Student Encyclopedia* and determine the most important point about the topic.

**Photosynthesis**

Photosynthesis is the process in which green plants use sunlight to make their own food. Photosynthesis is necessary for life on Earth. Without it there would be no green plants, and without green plants there would be no animals.

Photosynthesis requires sunlight, chlorophyll, water, and carbon dioxide gas. Chlorophyll is a substance in all green plants, especially in the leaves. Plants take in water from the soil and carbon dioxide from the air.

Photosynthesis starts when chlorophyll absorbs energy from sunlight. Green plants use this light energy to change water and carbon dioxide into oxygen and nutrients called sugars. The plants use some of the sugars and store the rest. The oxygen is released into the air.

Photosynthesis is very important because almost all living things depend on plants for food. Photosynthesis is also important because of the oxygen it produces. Humans and other animals need to breathe in oxygen to survive. Without photosynthesis, all Earth’s oxygen would be used up.

Some living things other than plants also make their own food through photosynthesis. They include certain types of bacteria and algae.

Choose the statement that is the best conclusion about photosynthesis.

A. Plants make their food through photosynthesis.

B. All green plants have chlorophyll.

C. Photosynthesis is necessary for life on Earth.

Try this one on your own. Read the text about Penicillin. What conclusion do you think is best?

**Penicillin**

The discovery of penicillin was one of the greatest scientific achievements of the 1900s. Penicillin belongs to a group of medical drugs called antibiotics. These medicines fight infections caused by small living things called bacteria. Infectious diseases once caused many deaths. The discovery of penicillin therefore saved millions of lives.

In 1928 an English doctor named Alexander Fleming discovered the effects of penicillin. While doing research on bacteria, Fleming noticed that the bacteria would not grow near a certain mold. He found that the mold was a type called *Penicillium notatum*. This mold is similar to the green fuzzy mold that grows on bread. From the mold Fleming developed the antibiotic now known as penicillin.

By the late 1930s penicillin was being used to treat infections in hospitals. During World War II in the 1940s, military doctors used penicillin to treat infected wounds. Penicillin is now widely used in the treatment of throat infections, meningitis, and other infections.
Making a Presentation

Written Presentation

To prepare a written presentation, the first thing you should do is make sure your notes and outline are organized.

Spread your note cards out. Read them one at a time, putting all the cards that refer to the same main topic or subtopic in the same section. Each time you add a card to a pile, check to make sure that the information on the card follows your outline. This will help you stay organized.

Your next step is to write a draft. A draft is a first attempt at putting all your material in logical order in complete sentences. Follow your outline as you write your draft to make sure you included examples or subtopics after each main idea. Be sure to express your main idea in the first sentence. Each main idea should begin a new paragraph.

Once you have done this, read your paper from the beginning to the end. As you read, follow along with your outline to see if you have included everything from the outline in your paper. You might need to revise some sentences to make your points clearer. Use a dictionary to check any spellings you’re not sure about.

Put your paper down and do something else for a few minutes, and then read it again. This will help you make sure that you see what you actually wrote, not what you meant to write.

Also, ask someone else to read your paper and to suggest ways to improve it.

Once you have written your final copy, remember to proofread it. To proofread your paper, read it from beginning to end, checking that it makes sense and that there are no mistakes in it.
Activity Page

Here’s a way to practice proofreading, or reading through a written report to make sure everything is correct. We’ve made 10 mistakes in this report about Pandora, a figure from Greek mythology. Can you find the mistakes? Hint: Look for spelling, punctuation, capitalization, grammar, and facts. You can compare this to the article in the Britannica Student Encyclopedia to help find the mistakes.

Pandora

In ancient Greek mythology Pandora was the first man on Earth. Her story begins with the fire god Prometheus. Prometheus stole fire from the gods and gave it to human. This angered Zeus, the ruler of the gods. He plotted to punish humans.

Zeus ordered Hephaestus, the god of fire and craftsmen, to make Pandora out of earth. Each god then contributed something to her. For instance, Aphrodite, the goddess of war, gave her beauty.

Zeus then sent Pandora to Earth. There she found a mysterious jar—which is sometimes called Pandora’s box. Pandora was warned not to open the jar. But she was overcome by curiosity. According to one story, as she lifted the lip, all kinds of evils flew out. She replaced the lid, but it was too late. Troubles had already covered the World. The only things left in the jar was hope.
Oral Presentation

Preparing for an oral presentation is similar to preparing for a written report. You must make sure your notes and outline are in order. You should write a draft of what you want to say. This will help make sure that it includes everything that you want it to and that it flows well. And although your draft may not be handed in, you should still check your grammar and spelling.

Some people get very nervous when they have to speak in front of an audience. But if the audience is your peers (your classmates), remember that they have to make a presentation too—they are probably just as nervous as you are!

Here are some guidelines to follow when making a presentation:

* Speak loudly and clearly enough that everyone can hear what you say. Also, speak with enough energy and variation in your voice that everyone will want to hear what you say.

* Think about your main topic. Would using visuals (for example, pictures, charts, or maps) help to make your talk clearer?

* Dress nicely but comfortably so that your classmates concentrate on what you are saying rather than on what you are wearing.

* Instead of reading from your paper, use index cards. Write one to three sentences on index cards. Then number the cards in order, just as you did for your research. That way, if you drop the cards, you can just pick them up and put them in the correct order again.

* Practice your speech several times. Time yourself to make sure that your presentation isn't too long or too short and to make sure you know the information. This will help you to avoid making awkward pauses or saying “um” or “ah” in between sentences. Practice in front of a friend or family member and ask for suggestions that can help make your presentation better.
Activity Page

Fill in the cards with information to create a speech about the artist Diego Rivera. You can use the *Britannica Student Encyclopedia* article as your source. If time allows, your teacher may have you volunteer to present it to the class. Cut out the cards for your presentation.

- **Explain what he is known for or why he is interesting.**
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- **Discuss how he started working on murals and where he worked.**
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- **Give details about his early life and training.**
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- **Mention some of the other work that he did and show an example of his work.**
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Multimedia Presentation
What is a multimedia presentation? It is the use of more than just your voice to express what you want to say. It may be using pictures, slide show, charts, graphs, or even audio. You will need to make sure you have what you need to make a multimedia presentation. For example, you might need to use a computer with special programs, or you might need to make large copies of pictures or other material.

If you need to borrow anything to create or present your assignment, make sure it will be available when you need it. You will also need to make sure you know how to use the equipment, or that someone will be able to assist you if you need help.

When you present your multimedia project, it is very much like making an oral presentation. The “media” part should act as the visual part of your oral presentation. The images should support what you are speaking about.

Creative Project
Is your assignment in the form of a creative project—one that requires a poster, a graph, a chart, or visuals of any kind? If so, make a list of materials you will need.

A creative project should include more than just the facts about your topic. Your project should represent originality, creativity, and your expression of the topic.

To plan your creative project, think about...
• making it large enough and bright enough for everyone in the class to be able to see—even your classmates at the back of the room.
• organizing it so that it shows the information in the correct order.
• putting captions on pictures to help tell the story.
Congratulations!
You have completed your research assignment. Now it’s time to think about how successful it was and what you can do to make your next project even better. This is called an evaluation.

You are going to review every aspect of putting this project together—from selection of the topic to your written or oral presentation.

Here are some questions to help evaluate your assignment. You can fill in the evaluation chart on page 27 for future reference.

Remember—this is for you only, so be honest!

★ Did I make sure I understood the requirements of the assignment?
★ Did I properly organize my research notes and outlines?
★ Did I use more than one source so that I had a variety of information on the topic?
★ Did I correctly include footnotes, endnotes, or a bibliography?
★ Did I check my work before handing it in so that I could make improvements and corrections?

Think about any steps that you could have done better, and come up with ways to improve them for your next assignment.

You might want to share your findings with your teacher to compare how each of you each felt about your work.
### Student and Teacher Evaluation Chart

<table>
<thead>
<tr>
<th>Planning</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>Understands “research”</td>
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<td>Understands specific assignment</td>
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<td>Can choose a topic of interest</td>
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<td>Can create an idea web</td>
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<tr>
<th>Gathering Information</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>Can use a variety of resources</td>
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<tr>
<td>Can use a library</td>
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<td>Can use skimming and scanning techniques</td>
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<td>Can use an online search engine</td>
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<td>Can go directly to a Web site</td>
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<td>Can use a table of contents and an index</td>
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<tr>
<th>Recording and Organizing Facts</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>Can take notes</td>
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<tr>
<td>Can make an outline</td>
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<td>Can collect and cite source information</td>
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<td>Can write footnotes or endnotes</td>
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<td>Can write a bibliography</td>
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<tr>
<th>Evaluating Information</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>Can summarize research notes</td>
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<tr>
<td>Can draw conclusions</td>
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<tr>
<th>Making a Presentation</th>
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<th>Notes</th>
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<tr>
<td>Can write and self-correct a first draft</td>
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<td>Can write a final copy</td>
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<tr>
<td>Can plan and prepare an oral presentation</td>
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<tr>
<td>Can plan and prepare a multimedia presentation</td>
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<tr>
<td>Can plan and prepare a creative project</td>
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<td>Can complete a self-evaluation</td>
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</table>
abbreviation p. 12 (n) a shortened form of a written word or phrase used in place of the whole.

authority p. 10 (n) a person who is an expert about a subject.

bibliography p. 15 (n) a list of the books and Web sites that were used to do a research project.

caption p. 8 (n) a comment or title that goes with a picture.

catalog p. 4 (n) a list of all the materials in a library. The list is arranged by subject, by title, and by the name of the author.

(to) cite p. 15 (v) to quote as an example, authority, or proof.

cross-reference p. 8 (n) a word or words that tell a reader where to find more information about a particular topic.

database p. 4 (n) a collection of data, or information, that can be searched easily.

Dewey Decimal System p. 4 (n) a numbering system used by libraries to keep track of books according to subject.

endnotes p. 15 (n) a note placed at the end of a document to explain something about a certain part of the text.

fact box p. 8 (n) a box containing quick facts about a particular subject.

footnote p. 15 (n) a note placed at the bottom of a page to explain or comment about a certain part of the text on that page.

formal p. 17 (adj) following established forms or rules.

graph p. 25 (n) a diagram that displays relationships between different sets of information.

image p. 25 (n) a visual representation of something (such as a photograph, a graph, or an illustration or drawing).

index p. 5 (n) a list of names or topics in a book. The list is usually arranged in alphabetical order and gives the page number where the name or topic can be found in the book.

index card p. 12 (n) small pieces of heavy paper stock, often with lines, used for recording individual thoughts or information.

informal p. 17 (adj) casual or relaxed use.

logically p. 17 (adv) in a way that makes sense or is reasonable.

media, plural of medium p. 25 (n) things used to communicate or to provide information.

objective p. 10 (adj) dealing with facts without allowing one’s feelings to confuse them.

oral p. 23 (adj) spoken rather than written.

peers p. 23 (n) people belonging to the same group in society especially based on age, grade, or status.

periodical p. 4 (n) a magazine, newspaper, or journal usually produced on a regular schedule.

plagiarism p. 15 (n) the act of stealing and passing off the ideas or words of another as one’s own.

publication p. 12 (n) a published work.

publisher p. 12 (n) a person or corporation that publishes something.

reference book p. 8 (n) a book that contains a collection of information about various topics.

resource p. 1 (n) a source of information.

(to) revise p. 21 (v) to rewrite or otherwise change a document.

Roman numeral p. 17 (n) a numeral in a system of notation that is based on the ancient Roman system using the letters I, V, X, L, C, D, and M.

schedule p. 1 (n) a plan that lists all the steps that need to be done in order to complete a task, the order in which they need to be completed, and the time that each step should take in order to finish on time.

skimming and scanning p. 5 (v) two related means of quickly finding specific information on a page.

source p. 15 (n) a document that supplies information.

table of contents p. 5 (n) a list of the parts or sections of a book or document. The list is in order and tells what page each section starts on.

topic p. 1 (n) the main subject of a report or presentation.

visual(s) pp. 23, 25 (n) images such as photographs or drawings.

Web site p. 10 (n) a collection of information on the Internet produced by an individual or a company.
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4. Evaluating Information
5. Making a Presentation

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