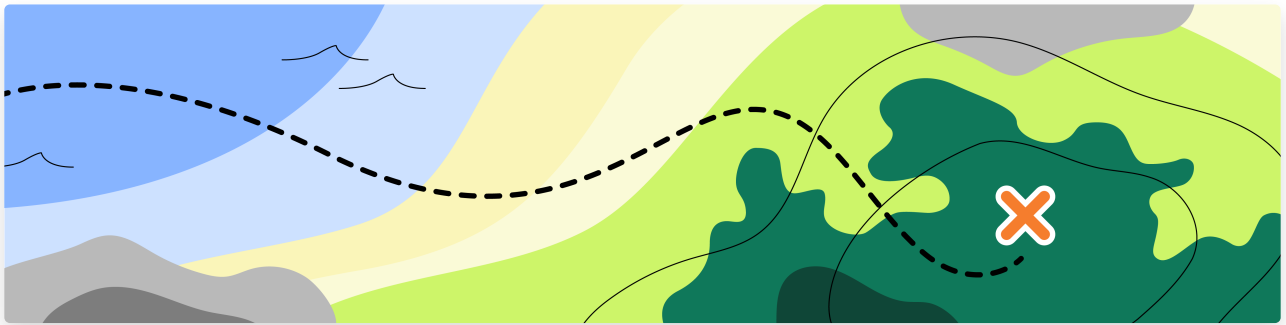


Effective Research Strategies

Textbook

Effective Research Strategies



Growing intelligent is, in a way, like a treasure hunt! But instead of finding gold, you're looking for the **best** information. How do you make sure you find what you're looking for and get the best answers? Well, you need to know the **right questions to ask**, how to search smartly, and how to choose trustworthy sources. Let's dive into the world of research!

Asking Essential Questions

Before you start looking for information, it's important to think about what you really want to know. **Essential questions** guide your research and help you focus on the important parts of the topic.

An essential question is one that:

- Is **open-ended** (it doesn't have a simple yes or no answer).
- Requires deeper thought and understanding.

For example, instead of asking:

"What is a shark?"

You might ask:

"How do different types of sharks survive in the ocean?"

This approach helps you find more meaningful and detailed information.

Gathering Information from Digital Resources: Keyword Searches

Now that you have your essential questions, it's time to start searching! To gather information, you'll need to use **keywords**—important words or phrases related to your topic. These are what you type into search engines or library databases.

Good keyword example: If you're researching sharks, try these:

- "great white shark hunting"

- "hammerhead shark diet"

Using specific keywords helps you find the best resources quickly and easily!

Digital resources you can use to gather information include:

- **Educational Websites:** Many museums, zoos, and science centers have websites with lots of information. For example, if you're researching sharks, you might look at websites from aquariums or ocean research organizations.
- **Online Encyclopedias:** These are like huge books with information on almost everything, but online!
- **Kid-Friendly Search Engines:** Some search engines are made just for kids to help them find safe and helpful websites.
- **Online Library Databases:** Your school or local library might have special online places where you can find reliable articles and information.

Essential Question	Key information found
How do different types of sharks survive in the ocean?	<ul style="list-style-type: none"> • Great white sharks have special teeth for hunting. • Hammerhead sharks use their head to find food.

Organizing Information from Digital Resources

Once you start finding information, it's important to **organize** it so you can use it later. As you read through websites or online articles, look for the main ideas and important facts that answer your essential questions.

You can organize your information by:

- **Taking Notes:** Write down the important facts in your own words. You don't need to write down every single word.
- **Using a Simple Chart:** Create a chart with columns for your essential questions, the key information you found, and where you found it (the name of the website or article). This helps you keep track of different pieces of information and which question they answer.

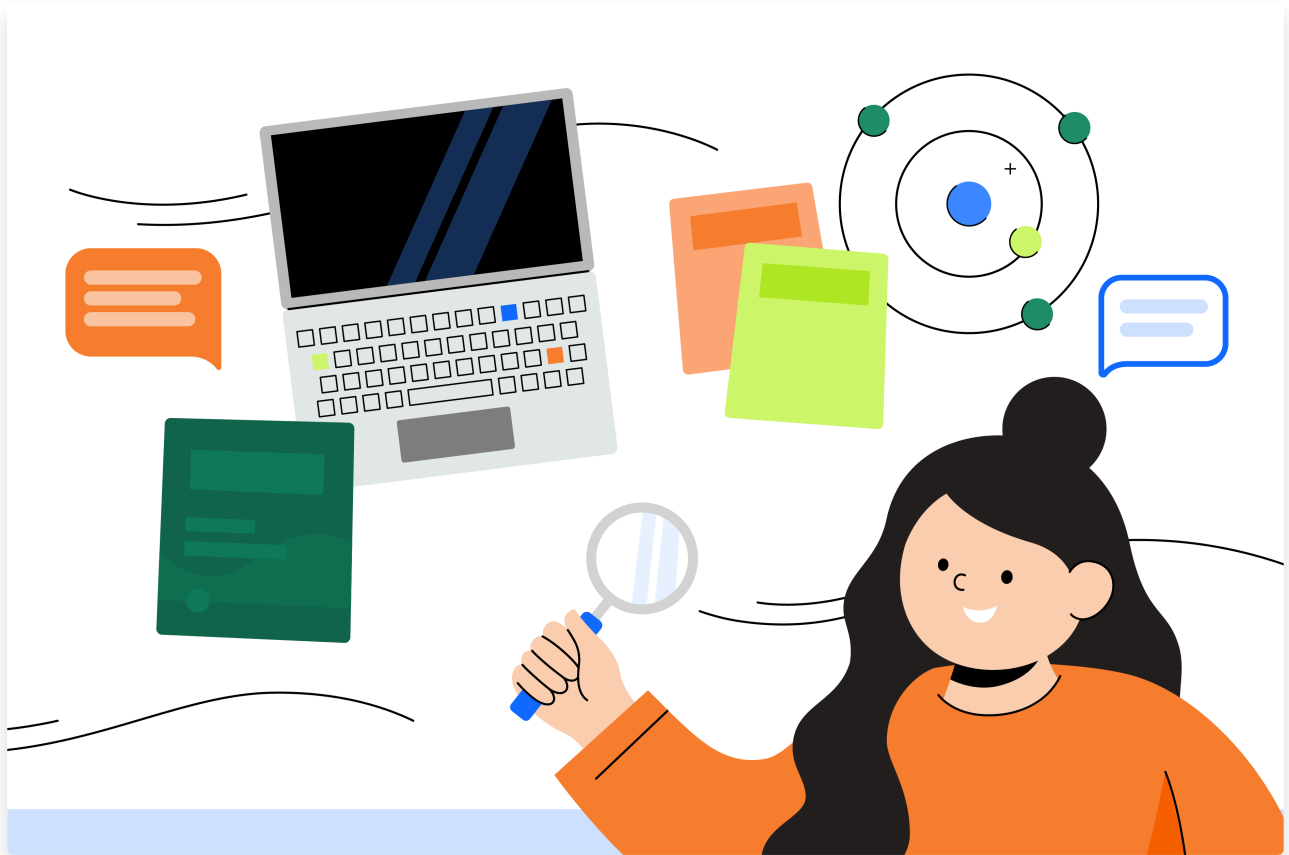
For instance, if your essential question is "How do different types of sharks survive in the ocean?", you might note:

Essential Question	Key Information Found	Source
How do different types of sharks survive in the ocean?	Great white sharks have special teeth for hunting.	National Geographic for Kids
How do different types of sharks survive in the ocean?	Hammerhead sharks use their head to find food.	Ocean Explorer Website

Citing Evidence

When you find information online, not everything is trustworthy. Some sources are more reliable than others, and knowing the difference is crucial. When you share what you've learned, you need to **cite evidence to explain and justify reasoning** by showing *where* you found your information. This makes your research strong and shows that you didn't just make it up!

Reliable and Unreliable Resources



When you find information online, not everything is trustworthy. Some sources are more reliable than others, and knowing the difference is crucial.

Reliable sources:

- **Peer-Reviewed Journals:** Articles reviewed by experts before being published.
- **Government Websites:** Information from official government sites.
- **Academic Books:** Books written by scholars or experts.

Unreliable sources:

- **Personal Blogs:** These may be based on someone's opinion and not on facts.
- **Social Media Posts:** Information shared on platforms like Instagram or Facebook, which may not be checked for accuracy.
- **Anonymous Websites:** Websites without clear authorship or credibility.

Always check who wrote the information and cross-check it with other reliable sources to make sure it's accurate!

How to Cite Your Sources

When you are in 4th grade, you will begin to refer to comments made by speakers and peers, and cite texts that you've directly quoted, paraphrased, or used for information. When writing, you will use the form of citation your teacher asks for.

Here are ways you can cite evidence:

- **When you write:** After you share a fact you learned, you can put the name of the website or article in parentheses. This helps your reader know where you got that information.
 - *Example:* Great white sharks can grow up to 20 feet long (National Geographic Kids).
- **When you talk:** You can say, "I learned from the National Geographic Kids website that..." or "According to the Ocean Explorer website,..." This tells your audience where your information came from.

Citing your sources shows that you are a careful and honest researcher!

Critical Thinking Questions

1. Why do you think it's important to ask essential questions before beginning your research? How do essential questions help you find better information?
2. Imagine you found information about sharks on a social media post but also in a peer-reviewed journal. What might be the differences in the accuracy of the information you find in these sources? Why is it important to know which sources are trustworthy?

Questions (5)

1. What is the purpose of asking essential questions before starting research?

MULTIPLE CHOICE

Choose the correct answer:

- A. To find information quickly
- B. To guide your search and deepen understanding
- C. To summarize the information found
- D. To use online tools effectively

2. What are keywords used for in research?

MULTIPLE CHOICE

Choose the correct answer:

- A. To write a summary of your findings
- B. To ask questions about a topic
- C. To search for relevant information quickly
- D. To share information on social media

MULTIPLE CHOICE

3. True or False: Essential questions are those that have simple yes or no answers.

Choose the correct answer:

- A. True
- B. False

4. True or False: It is important to check the credentials of the author and verify information with multiple sources when evaluating the reliability of sources.

MULTIPLE CHOICE

Choose the correct answer:

- A. True
- B. False

MULTIPLE CHOICE

5. Which of the following is an example of a reliable source for research?

Choose the correct answer:

- A. A personal blog written by someone interested in the topic.
- B. An article from a peer-reviewed journal.
- C. A social media post with opinions about the topic.
- D. An anonymous website with information on the topic.

Games (2)

1. Effective Research Strategies Typing Game


Full Screen

Audio

Instructions

Restart

Pause



0s 100%

Before starting research,

2. Effective Research Strategies Category Game

Full Screen

Audio

Instructions

Answer Key

Pause

Clear All

Check Order

Attempts: 0

Government Websites

Anonymous Websites

Peer-Reviewed Journals


Social Media Posts

Academic Books

Personal Blogs

More Reliable Sources

Less Reliable Sources



Answer Keys & Solutions

Questions

1. What is the purpose of asking essential questions before starting research?

MULTIPLE CHOICE

Correct Answer:

- A. To find information quickly ✗ Incorrect
- B. To guide your search and deepen understanding ✓ Correct
- C. To summarize the information found ✗ Incorrect
- D. To use online tools effectively ✗ Incorrect

Explanation:

Essential questions help focus your research and lead to deeper understanding.

2. What are keywords used for in research?

MULTIPLE CHOICE

Correct Answer:

- A. To write a summary of your findings ✗ Incorrect
- B. To ask questions about a topic ✗ Incorrect
- C. To search for relevant information quickly ✓ Correct
- D. To share information on social media ✗ Incorrect

Explanation:

Keywords help you find specific information related to your research topic.

3. True or False: Essential questions are those that have simple yes or no answers.

MULTIPLE CHOICE

Correct Answer:

A. True

✗ Incorrect

B. False

✓ Correct

Explanation:

Essential questions are open-ended and require deeper exploration.

4. True or False: It is important to check the credentials of the author and verify information with multiple sources when evaluating the reliability of sources.

MULTIPLE CHOICE

Correct Answer:

A. True

✓ Correct

B. False

✗ Incorrect

Explanation:

Consider the importance of verifying information before using it in research.

5. Which of the following is an example of a reliable source for research?

MULTIPLE CHOICE

Correct Answer:

A. A personal blog written by someone interested in the topic.

✗ Incorrect

B. An article from a peer-reviewed journal.

✓ Correct

C. A social media post with opinions about the topic.

✗ Incorrect

D. An anonymous website with information on the topic.

✗ Incorrect

Explanation:

Reliable sources are written by experts in the field and supported by evidence.

Games

1. Effective Research Strategies Typing Game

Typing game - no answer key needed. Students practice typing the provided content.

2. Effective Research Strategies Category Game

Category Solutions:

Category 1: More Reliable Sources

- Peer-Reviewed Journals
- Government Websites
- Academic Books

Category 2: Less Reliable Sources

- Personal Blogs
- Social Media Posts
- Anonymous Websites

Students must sort items into their correct categories.