

Effective Research Strategies

Textbook

The Effective Research Strategies



Finding information online is a skill. Instead of just searching for a single word, like "volcano," you can make a good plan. A plan uses good questions and keywords to help you find exactly what you need.

Research

Research is when you look for information to learn new things. You can do research online with search engines, or you can use books and magazines.

Essential Questions

An essential question is a special question that helps us learn more about a topic.

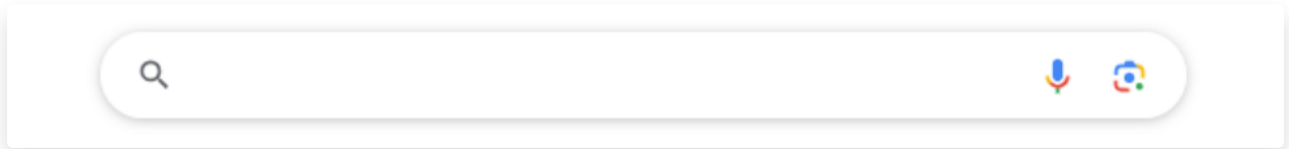
For example, if I were researching ocean animals, 2 essential questions might be:

1. What are the different ocean habitats?
1. What dangers do ocean animals face?

Keyword Searches

Keywords are important words that help you find information.

- To find good keywords, look at your question and pick the main words. For our example, the keywords would be "ocean animals" and "habitats."
- The more specific your keywords are, the better information you will find



The more specific your keyword(s) are, the better results you will get. You could also consider using specific keywords like dolphins, whales, fish, and sharks to find out more about a specific creature.

Reliable Resources

Once you have searched your keywords, you can read through the different sources to find reliable information. Reliable resources are resources that can be trusted. Unreliable resources are resources that cannot be trusted.

You can tell if a resource is more reliable if:

- You can find the author of the source.
- The online source ends in **.edu**, **.gov**, or **.org**.
- The source lists its own resources for where it found information.

If any of those are missing, it might not be a reliable resource. Always use reliable resources!

Using Evidence from Your Research

Once you find reliable information, it's like finding treasure! That information becomes your **evidence**. Evidence is the facts, details, and ideas you find in a reliable book, website, or article that help you answer your essential questions and prove your ideas.

When you use information from your research, it's super important to tell everyone **where you found it**. This is called **citing evidence**. It shows that you did good research and that your ideas are based on true facts from trustworthy places. It also gives credit to the people who wrote the information!

Here's how you can use evidence to explain your thinking:

Telling Exactly What It Said (Direct Quote)

Sometimes, the words from your source are so perfect that you want to use them exactly as they are. When you do this, you put the words in **quotation marks** (" "). This shows everyone that these are not your words, but someone else's. And remember to **name your source!**

Example:

- Your Essential Question: What causes a volcano to erupt?
- What you found: You read on a website called "Kids' Science Lab" that "Volcanoes erupt when melted rock, called magma, rises to the surface through cracks in the Earth."
- How you would explain and cite it: "According to Kids' Science Lab, 'Volcanoes erupt when melted rock, called magma, rises to the surface through cracks in the Earth.'"

- You directly used the words from the source, put them in quotation marks, and told everyone where you found that fact. This is clear evidence!

2. Putting It In Your Own Words (Indirect Citation/Paraphrasing)

Most of the time, you will read information and then tell it in your own words. This shows you really understand what you read! Even when you put it in your own words, you still need to tell where you got the information.

Example:

- **Your Essential Question:** How do volcanic eruptions affect the environment?
- **What you found:** In an article called "Understanding Volcanoes" from the "Nature Explorer Magazine," you read that ash from eruptions can make the air dirty and cover plants, making it hard for animals to find food.
- **How you would explain and cite it:** "From what I learned in an article from **Nature Explorer Magazine**, when volcanoes erupt, the ash they send out can make the air unhealthy and cover plants, which makes it hard for animals to eat."
 - You used your own words to explain the idea, but you still gave credit to the magazine where you found that important information.

Why is Using Evidence Important?

Using evidence helps you:

- **Justify your reasoning:** It proves *why* your answer is correct or *why* you believe something. It's like saying, "I know this is true because I read it in a reliable source!"
- **Show what you learned:** It demonstrates that you found good information and understood it.
- **Show respect for creators:** It gives credit to the authors of the information you used.

So, when you answer your essential questions, always try to use details and facts from your reliable resources as evidence, and remember to tell everyone where that awesome information came from!

Critical Thinking Questions

1. How can asking the right questions help you find better information when doing a project or homework?
2. Why is it important to check if the website or source you're using is reliable before using it for your research?

Questions (5)

1. What is research?

MULTIPLE CHOICE

Choose the correct answer:

- A. When you bake a new recipe
- B. When you look for information to gain new knowledge
- C. When you add numbers using a calculator

2. True or False: Essential questions and keyword searches are NOT effective ways to research.

MULTIPLE CHOICE

Choose the correct answer:

- A. True
- B. False

3. What is a reliable resource?

MULTIPLE CHOICE

Choose the correct answer:

- A. A resource that cannot be trusted.
- B. A resource that does not have true information.
- C. A resource that can be trusted.

4. Select the 3 ways you can tell if a resource is reliable:

SELECT MULTIPLE

Select all that apply:

- A. You can find the author of the source.
- B. The online source ends in .edu, .gov, or .org.
- C. The source lists its own resources for where it found information.
- D. The source has false information.

5. True or false: Research can be done by using online tools like search engines and online encyclopedias

MULTIPLE CHOICE

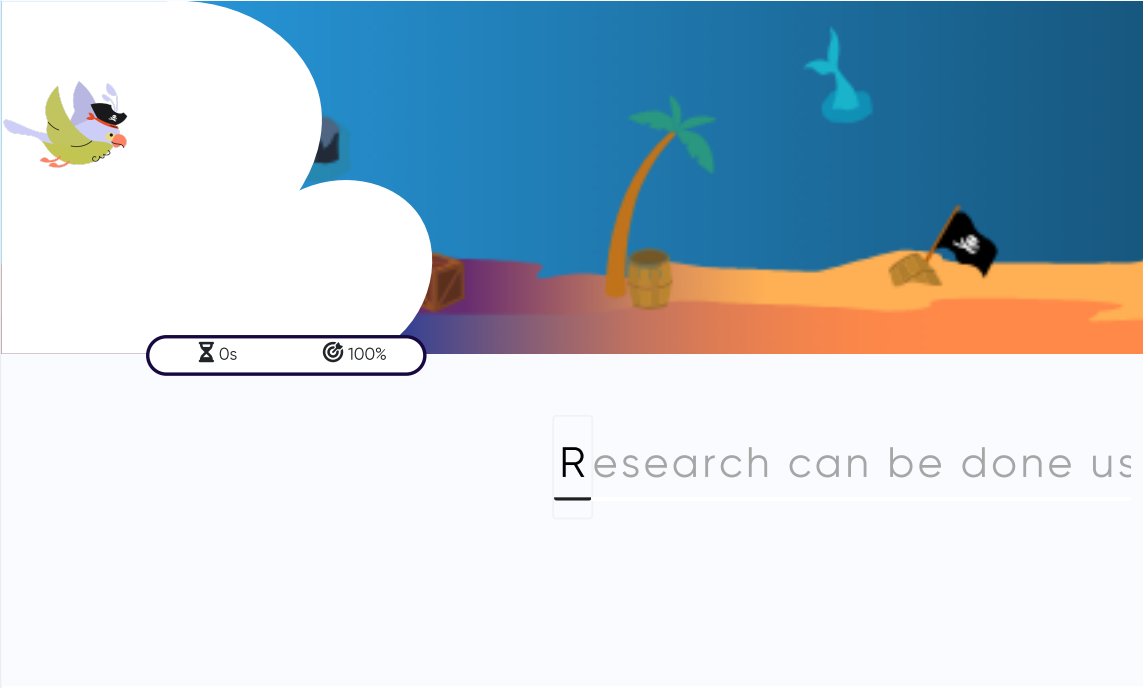
Choose the correct answer:

- A. True
- B. False

Games (2)

1. Effective Research Strategies Typing Game

Full Screen Audio Instructions Restart Pause



Research can be done us

2. Effective Research Strategies Category Game

Full Screen

Audio

Instructions

Answer Key

Pause

Clear All

Check Order

Attempts: 0

The author of the source is unclear

You can find the author of the source.

The online source ends in .biz

The online source ends in .com

The online source ends in .edu

The source lists its own resources for where it found information.

The source does not list resources of information

The online source ends in .net

The online source ends in .gov

The source



The Resource is Reliable

The Resource is Not Reliable

Blocks Pro Challenges (1)

1. An Interesting Invention

An Interesting Invention

First, draw the invention you researched using the drawing tool. Then, create a presentation of the invention you researched.

This should include at least 4 sprites, each answering one of the following questions:

1. What invention are you researching?
2. Who invented it?
3. What is the invention used for?
4. What problem does the invention solve?

Requirements 0/2

4 Looks

4 Event

Blocks must be connected to an Event block in order to pass

The image shows a Scratch code editor with a sequence of motion blocks for a sprite. The blocks are as follows:

- move 10 steps
- turn 15 degrees
- turn 15 degrees
- go to random position
- go to x: 0 y: 0
- glide 1 secs to random position
- glide 1 secs to x: 0 y: 0
- point in direction 90
- point towards mouse-pointer
- change x by 10
- set x to 0
- change y by 10
- set y to 0
- if on edge, bounce
- set rotation style left-right

The sprite is a blue cat-like character. The stage is empty. The requirements section shows 4 Looks and 4 Event requirements.

Answer Keys & Solutions

Questions

1. What is research?

MULTIPLE CHOICE

Correct Answer:

- A. When you bake a new recipe ✗ Incorrect
- B. When you look for information to gain new knowledge ✓ Correct
- C. When you add numbers using a calculator ✗ Incorrect

Explanation:

People research when they want to find something out

2. True or False: Essential questions and keyword searches are NOT effective ways to research.

MULTIPLE CHOICE

Correct Answer:

- A. True ✗ Incorrect
- B. False ✓ Correct

Explanation:

Essential questions and keyword searches help us find lots of information!

3. What is a reliable resource?

MULTIPLE CHOICE

Correct Answer:

- A. A resource that cannot be trusted. ✗ Incorrect
- B. A resource that does not have true information. ✗ Incorrect
- C. A resource that can be trusted. ✓ Correct

Explanation:

We always want to use reliable resources when researching information.

4. Select the 3 ways you can tell if a resource is reliable:

SELECT MULTIPLE

Correct Answers:

- | | |
|-----------------------------------------------------------------------|-------------|
| A. You can find the author of the source. | ✓ Correct |
| B. The online source ends in .edu, .gov, or .org. | ✓ Correct |
| C. The source lists its own resources for where it found information. | ✓ Correct |
| D. The source has false information. | ✗ Incorrect |

Explanation:

Reliable resources have accurate and true information.

5. True or false: Research can be done by using online tools like search engines and online encyclopedias

MULTIPLE CHOICE

Correct Answer:

- | | |
|----------|-------------|
| A. True | ✓ Correct |
| B. False | ✗ Incorrect |

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: The Resource is Reliable**

- You can find the author of the source.

- The online source ends in .edu
- The online source ends in .gov
- The online source ends in .org
- The source lists its own resources for where it found information.

Category 2: The Resource is Not Reliable

- The author of the source is unclear
- The online source ends in .com
- The online source ends in .biz
- The source does not list resources of information
- The online source ends in .net

Scoring:

- Gold: 1 attempts or fewer
- Silver: 2 attempts or fewer
- Bronze: 3 attempts or fewer

Students must sort items into their correct categories.