Research Article 1 Thought Organizer

Your first step when selecting articles to help you as you move forward with your research topic is to ensure that you select articles from reputable sources. Use the information below to help you do that.

Background Information

Now that you have a key question, you need to explore more on the subject. There are a number of ways to do this — some right in front of you.

- Ask questions: teachers, friends and family are a great place to start. You could also write to a local organization or academic establishment to speak to an expert in the field.
- Head to the library: public libraries will have a range of books, journals and newspaper clippings that could be linked to your problem.
- Google: the internet provides us with a wealth of resources at the click of a button.

Evaluating the credibility and validity of a resource can be very difficult, particularly when researching online. Below are some basic guidelines to help you select reliable resources and use those to learn accurate information about a given subject. This link also provides detail on how to evaluate the quality of content on a website.

Authority

Who is providing the information? A website's URL (their web address, e.g. google.com) can give you insight into the origin of a resource or piece of information. The following are examples of ways you can determine the type of organization that is sponsoring the content for a specific website.

Trusted sites

- .edu are usually educational institutions and generally a good source of information.
- .gov are government websites and usually good sources for statistical information.
- .org are typically non-profit organizations often set up as a public service. Be on the lookout for political agendas and biases.

Example: If you are looking for information about vaccinations, then you might check .gov sites for statistics related to records of vaccines, number of people vaccinated, etc. Sites affiliated with specific biases on vaccinations will probably be listed as .org sites.

Blogs

While interesting, these are usually not fact-based. You could read them to understand different viewpoints, but the information presented should not be viewed as fact.

Online magazines or journals

These articles often contain a detailed bibliography and site-specific resources as evidence for claims and statistics.

Online news sources

Virtually every network and cable news station has an online site, as do local affiliates. It is important to realize that, while they do provide news, they are also involved in the entertainment industry and may present some information that is opinion rather than fact-based.

Television/internet video news broadcasts

When viewing video, keep in mind that if it is not from a source that can be accurately attributed with an origin, a date, and certain key information, such as who sourced it, why it was broadcast and how the information was discovered, then the source may not be credible.

From: Google Science Fair Documents

Question Stems to Guide Background Research (Article Analysis)

Not sure what you should be reading for? To help guide you as you do your article analysis, use the question starters below to make questions that can help you with your article analysis that will help you the most as you move forward with your research project. Use the question stems below to help you pull essential content from your background research. As you do other article analysis, have these question stems open to help you

Question Word	Possible Questions (you can think of others)	Substitute your keywords (or variations of your keywords) for the blanks in the previous column. Write down the relevant questions and use them to guide your background research.
Why	Why does ____ happen? Why does ____ _____? Why _____?	
How	How does ____ happen? How does ____ work? How does ____ detect ___? How does one measure ___? How do we use ___? How _____?	
Who	Who needs _____? Who discovered ____? Who invented ____? Who _____?	
What	What causes ____ to increase/decrease? What is ___ made of? What are the characteristics of ____? What is the relationship between ____ and ___? What do we use ____ for? What _____?	
When	When does ___ cause ___? When was ____ discovered? When _____?	
Where	Where does ___ occur? Where does ___ get used? Where _____?	

Instructions: Using an article from the Science News magazine or other reputable source, complete the graphic organizer.

Headline of Article								
Date published in Science News								
Original News Source							List a new voc. word you learned and its meaning	
Topic of Article: *Circle at least ONE, more if necessary*	Health	Athletics	Gender Issues	Legal	National	Science	Literature	Technology
	Social Issues	Religion	Education	Health / Fitness	Arts & Entertainment	International	Environmental	Financial

Prompt	Response
In three sentences, **summarize** the article. Take one idea from each: the beginning, middle and end. 1. **Beginning**: The guiding idea or topic sentence. 2. **Middle**: A supporting quote, fact or statistic 3. **End**: A final statement, suggestion, idea that wraps up the article's ideas.	
Make ONE major **connection** between information in the article and your own experiences, to a world or national event or to something you have learned in any classroom.	Article statement: My connection:

Write the headlines of two articles also in this issue of the magazine.	1.
	2.
Which <u>one</u> of those two articles interests you based on the headline alone? Also based on the headline, in a detailed explanation, **predict** <u>how</u> you think this suggested article would be related to science or engineering?	
Formulate two questions you have about the reading. They could include questions that address confusing parts or introspective questions that the reading makes you wonder about.	1.
	2.