



# Worksheet: Planning your research

## About the Coastline Online Library

Coastline Library is 100% online.

A Librarian can assist you with Coastline your course related research.

**Mailing address:** Library, Coastline Community College,  
11460 Warner Ave., Fountain Valley, CA 92708

---

At the end of this worksheet, students will be able to:

- Analyze assignments in order to initiate a research project
  - Choose an appropriate research topic
  - Develop a research question
  - Identify narrow, broad, and related key terms for a topic search
  - Ask for research assistance from a librarian or educational specialist
- 

## Research tips from the Library:

### 1. Read your assignment.

Deciphering a research assignment requires understanding the assignment **prompt** and complying with its **guidelines**. When analyzing an assignment prompt, consider the following factors: topic, purpose, source types, length, format, and deadline.

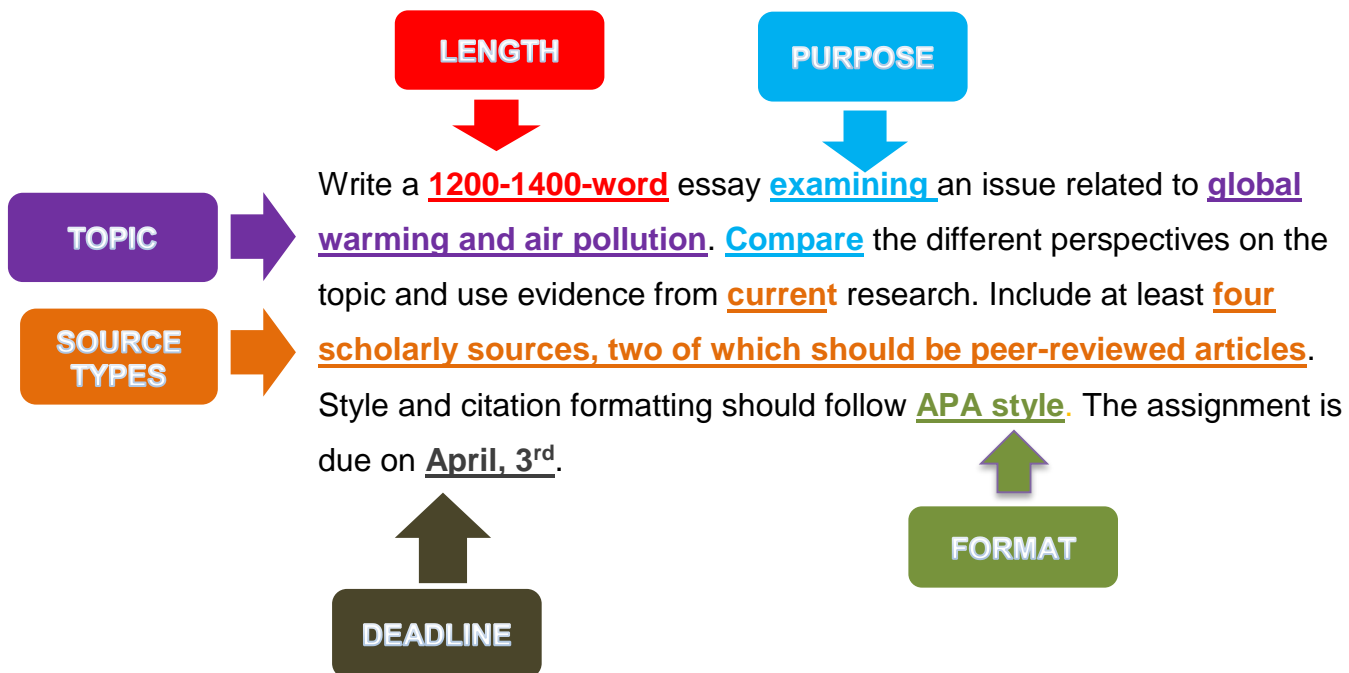


Figure 1 Assignment Prompt Example

From the assignment prompt above, you should have noticed these factors:

- **Length:** 1200 – 1400 word

- **Purpose:** examining and comparing
- **Topic:** global warming and air pollution
- **Source Types:** current, four scholarly sources, two of which should be peer-reviewed articles
- **Format:** APA Style
- **Deadline:** April 3rd

Your Turn: Identify the following factors in your assignment:

Topic: \_\_\_\_\_

Purpose: \_\_\_\_\_

Source Types: \_\_\_\_\_

Format and Length: \_\_\_\_\_

Deadline: \_\_\_\_\_

## 2. Select a research topic.

When deciding on a topic, you should choose one that interests you within the guidelines of the assignment; this way you ensure the process will be engaging. You may review your course readings and lectures for inspiration. It is important to be flexible – you may have to broaden, narrow, or even change your topic as you move through the research process. If your topic is too broad it will be difficult to find relevant information to adequately address the topic in your paper leading to a summary rather than analysis. If your topic is too narrow, it will be difficult to find information “at all”. A manageable topic is neither too broad nor too narrow, as shown in the following example:

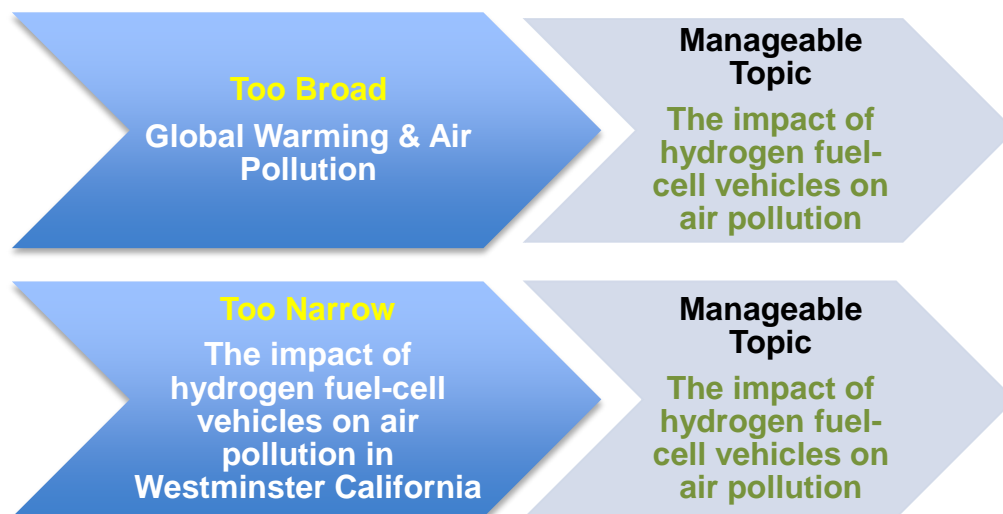


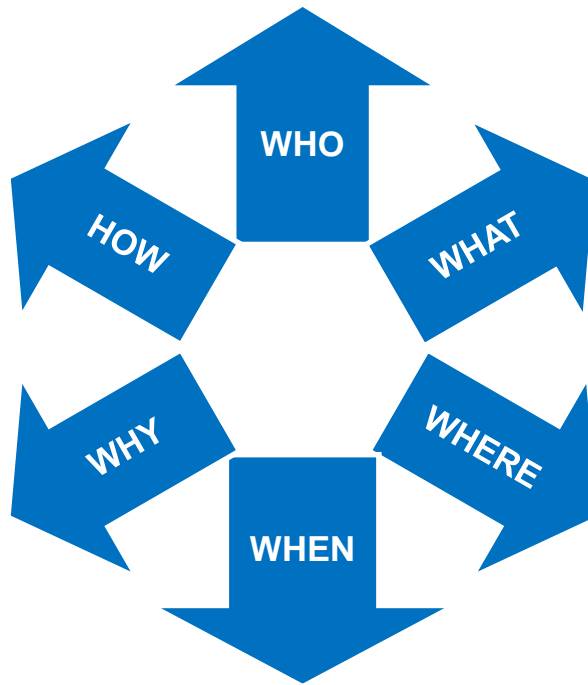
Figure 2 Stating A Manageable Topic

Your Turn: State a manageable topic from your assignment: \_\_\_\_\_

---

### 3. Write a research question based on your topic.

A good research or “guiding question” is a tool for focusing and narrowing your topic. One way of generating questions is to use the journalistic approach of asking who, what, where, when, why and how.



*Figure 3 Generating Potential Research Questions*

Examples of Potential Research Questions:

- **Who** show skepticism/optimism towards the economics of hydrogen-powered vehicles as state and national governments unveil subsidies? Who directly benefit from the manufacturing of hydrogen fuel cell vehicles (HFCVs)?
- **What** are the barriers consumers, automobile industry, hydrogen suppliers and governments have to overcome for a widespread adoption of HFCVs?
- **When** and **where** would hydrogen cars be most practical and efficient for operation (cities, highways, countryside)?
- **How** does the environmental footprint of a hydrogen car compare with a fossil fuel-powered car? How would the conversion of on-road vehicles to HFCVs impact health and air quality?

- **Why** is converting on-road California cars to hydrogen cars still considered to be a major challenge? Why should/shouldn't consumers consider HFCVs as a viable alternative to fossil fuel-powered cars?

Your Turn: What are some potential research questions?

---



---



---



---



---

A good research question focuses on one relevant issue; it requires analysis and does not have a yes/no answer that is the reason *how* and *why* questions are best. When developing a research question, make sure it meets the following criteria:

- It is an open-ended question – it cannot be answered with yes or no;
- It addresses an issue or controversy and/or solves a problem;
- It is clear (avoid vague or ambiguous words);
- It is something that you can take a position on.

An example of a preliminary research question: How does hydrogen car technologies compare to fossil fuel technologies in improving the environmental footprint of the automotive sector?

Your Turn: Develop a preliminary research question: \_\_\_\_\_

---



---

Keep in mind it is common to refine your preliminary research question, especially as you gather sources. That way you will be able to replace “ambiguous terms” with “discipline-specific concepts” and refocus the scope of your question, if needed.

#### 4. Identify key terms

Identify your topic's main concepts by listing its most significant terms (key terms). Look for nouns and verbs that define your topic and omit unnecessary terms such as articles, conjunctions, and prepositions. In order to streamline the searching process, include narrow, broad, and related terms and phrases.

Here is an example:

How does **hydrogen car technologies** compare to **fossil fuel technologies** in improving the **environmental footprint** of the automotive sector?

#### Key Terms

hydrogen car technologies  
environmental footprint  
fossil fuel car technologies

#### Narrow Terms

hydrogen fuel cell vehicles (HFCVs) technologies  
carbon footprint  
petroleum fuel-powered cars technologies

#### Broad Terms

sustainable transport  
greenhouse emissions; car emissions  
on road vehicles technologies

#### Related Terms

electric cars; electric carbon-cars  
environmental emissions;  
environmental emissions  
traditional cars technologies

Your Turn: Identify your topic's main concepts and key terms:

| Key Terms | Narrow Terms | Broad Terms | Related Terms |
|-----------|--------------|-------------|---------------|
|           |              |             |               |

### 5. Identify potential resources.

The type of sources for supporting a research project are determined by the topic and scope of your project. That is why it is important to determine whether your topic demands current information or not. Integrating different source types and viewpoints will support a stronger argument and analysis.

Your Turn: Select source types for your resources:

- ☐ Blog   ☐ Book   ☐ Government Document   ☐ Journal article   ☐ Magazine article  
☐ Newspaper article   ☐ Reference work (atlas, encyclopedia article, handbook, etc.)  
☐ Report   ☐ Social Media   ☐ Statistics   ☐ Website  
☐ OTHER (e.g. speech, correspondence, map, photograph) \_\_\_\_\_

### 6. Start your research.

As you review your assignment guidelines and course readings, identify the items or factors you need assistance with. For research support, ask an educational specialist or your Coastline librarians. When requesting assistance to your Coastline librarians, please mail a completed research request form to your Coastline Library.

Source consulted:

Palmquist, Mike. *The Bedford Researcher*. 5th ed., Bedford / St. Martins, 2016.