

Name: _____

Date: _____

DEADLINE 2:

Background Research, Hypothesis, and Variables

Part 1: Conduct Background Research

- Conduct Academic Research to discover more about your topic of choice.
- Find at least 2 academic sources of information about your experiment and jot down 3-5 key pieces of information collected from each source
- Summarize your 3 to 5 key points from each source in at least 2 complete sentences.
- Include a bibliography at the end with the sources you used (see bottom of next page)

The following questions provide a starting point for your background research. As you attempt to answer these questions, be sure to document your sources in the following pages.

a) Has someone done this experiment or investigated something similar to this topic before? _____

b) What did they find out?

c) How did they set up their experiment?

d) Does someone make a claim about your experiment? (Example: One website says that...)

Name: _____

Date: _____

Essential definitions: Write down any important terms and their definitions below (you may use another page if you need to).

Term or phrase	Definition

Source 1: _____

(Page #s - if you use a book _____)

3 Key Points: (does not have to be in complete sentences)

Summary for source 1: (2 sentences to write into the final draft of your research report):

Works Cited- Cite the source where you found the information related to your project.

Source 1: _____

--

Name: _____

Date: _____

Source 2: _____

(Page #s - if you use a book _____)

3 Key Points: (does not have to be in complete sentences)

Summary for source 2: (2 sentences to write into the final draft of your research report):

Works Cited- Cite the source where you found the information related to your project.

Source 2: _____

--

Name: _____

Date: _____

Source 3: _____

(Page #s - if you use a book _____)

3 Key Points: (does not have to be in complete sentences)

Summary for source 2: (2 sentences to write into the final draft of your research report):

Works Cited- Cite the source where you found the information related to your project.

Source 2: _____

Name: _____

Date: _____

Part 2: Formulate Your Hypothesis

Based on the background research you have now completed, write a hypothesis for your investigation. Remember, your hypothesis is your proposed answer to your science fair question and should be based upon the research you have compiled. Include a description of the scientific reasoning behind your hypothesis.

You may format your hypothesis as an “IF _____, THEN _____ BECAUSE _____” sentence to help organize your thoughts.

Peer Review of Hypothesis

Have 2 peers from class review your hypothesis. Use the feedback to revise your hypothesis.

Feedback should include: +: positive feedback Δ: suggested changes

Hypothesis:	
Peer Review 1 +: Δ:	Peer Review 2 +: Δ:

Name: _____

Date: _____

Final Question:

Final Hypothesis:

Part 3: Identify Your Variables

Independent Variable (What you are changing?)

Dependent Variable (What you are measuring)

Constants/ Controls (Identify what you are keeping the same across your experiment to make sure your results are accurate)

Teacher Approval

_____(Signature)_____(Date)
Notes: