Claim –

Statement About the Results

* AKA Hypothesis
* A one sentence answer to the question you investigated.
* It answers, what can you conclude?
* It should ***NOT*** start with yes or no.
* It should describe the relationship between the dependent and independent variables.

Background –

Personal Experience and Knowledge Gained

* Prior knowledge you have from previous experiences and/or classes
* It is a connection between the phenomenon presented and your knowledge
* This knowledge is a starting point but by no means complete
* Conduct research on your claim to see what others have done

Evidence –

Scientific Data Used to Support the Claim

* Must be sufficient – use enough evidence to support the claim
* Must be appropriate – use data that supports your claim. Leave out information that doesn’t support the claim.
* Must use one or both types of observations:
* Qualitative – Using your senses / quality
* Quantitative – Using numerical data / quantity

Analyze –

Evaluate and Review the Evidence

* Evaluate the evidence with a ***CRITICAL*** eye
* Is the evidence complete, or is something forgotten?
* Is more data collection needed? You should have performed multiple trials.
* Have you made any mistakes? (Experimental Errors)
* If needed, create a graph
* Calculate an average for the different trials
* Make sure to label all tables and graphs.
* Include the units of measurement
* Independent variable is on the x-axis and the dependent variable is on the y-axis

Reasoning –

Ties Together the Claim and the Evidence

* AKA Conclusion
* Reflect on the experiment
* Does the evidence support or contradict the original hypothesis?
* Does your original hypothesis need to be modified?
* How could you change your experiment or model to account for the observations?
* Determine how your observations fit into your hypothesis
* Provide justification for why this evidence does or does not support the claim
* What is the relationship between the independent and dependent variables?
* Evaluate the experimental procedures, talking about the successes and failures
* Suggest future study and changes that might be made.
* Includes one or more scientific principles that are important to the claim and evidence
* Should be a paragraph in length at least

**In science, CBEAR is often shortened to CER, same concepts just a different acronym. The C still stands for claim. The E has combined the B and E together, and the R has combined the A and the R together. No matter how it is done it is still the same procedure. In this class, we will be using the full CBEAR to get the true experience of scientific writing. There may be days where it is shortened down to CER.**

**CBEAR = CER**