Claim, Evidence, Reasoning – **Page 4**

The conclusion to your labs, investigations, and experiments need to be written in a particular way. They need to answer the driving question of the lab by making a **claim**, provide **evidence** to back up the claim, relate back to your hypothesis, and provide **reasoning** (grounded in scientific principles) as to why the experiment generated the results that it did. Use this resource to help write your conclusions or scientific explanations on any labs, experiments, and investigations going forward.

**Claim**: **Directly answers the driving question of the experiment, and relates directly back to the hypothesis** (for example, if the driving question that was tested was “what is the boiling point of water?” the claim would state the temperature at which water boils).

**Evidence**: **Provides support for the claim by citing results and/or data from the experiment** (in the example of finding the boiling point of water, the evidence would state how the boiling point of water was found, what other tests were done with other substances and mixtures, or what steps that were taken, in order to ensure the correctness of the data, and what exactly that data was).

**Reasoning**: **Provides possible explanations as to why or how the evidence supports the claim, and identifies the scientific principles at work in the experiment** – otherwise known as the link between the claim and the evidence. The reasoning also specifically identifies the scientific principles involved in the investigation (in the boiling point of water example, the scientific principle would be the property of boiling point – the point at which a liquid becomes a gas).

**Rebuttal: Rebuttal refutes or agrees with a different claim that answers a scientific question or topic.** Also explains why specific evidence cited in a scientific argument does or does not support the claim being presented. Further provides an alternate claim based on existing evidence gathered during investigation or experimentation, and provides reasoning for why the evidence actually supports an alternate claim.