Name:

Class:

**Lab Title:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

CER Template:

|  |  |
| --- | --- |
| **Paragraph 1** |  |
| **Claim:** (*What is the answer to your question or the conclusion from the lab?  What does your data say about the relationship between IV and DV?)* |  |
| **Data/Evidence #1:***What are two pieces of quantitative evidence #s-that support your claim? Don’t forget units).*  |  |
| **Reasoning/Warrant:** What does your evidence mean?  Why does the IV and DV have that relationship? Include unit vocabulary in your explanation.\* Be sure all work is in full sentences.  This is a template for writing the analysis paragraphs.   |  |
| Paragraph 2 |  |
| **Hypothesis Supported?:  (**What did you think was going to happen?  Did the data support that or not?) |  |
| **Errors:  (**What are two ways your data could have become less reliable? Why would your data have been affected?  How could you have changed the lab to remove these?- Usually things you didn’t keep constant) |  |
| **Conclusive Data?** (Do you feel like your results show a clear-conclusive- answer to your question?  Why? Was there a big difference between your control and experimental groups? Was there a clear pattern in the results? If not why?) |  |

\* Be sure all work is in full sentences.  This is a template for writing the analysis paragraphs.

Name: **EXAMPLE**

Class:

Date:

**CER Template**

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| --- | --- |
| **Paragraph 1** |  |
| **Claim: (*What is the answer to your question or the conclusion from the lab?  What does your data say about the relationship between IV and DV?)****The longer I chewed my gum the smaller the bubbles I could blow with it.*  |  |
| **Data/Evidence #1: *What are two pieces of quantitative evidence #s-that support your claim? Don’t forget units).*** *When I had been chewing my gum for 5 minutes the bubbles were 6cm across but when I had been chewing it for 10 minutes the biggest bubble I could blow was only 4cm across. That means that in 5 minutes the bubble size decreased by 2 cm that is a 33% difference in bubble size.*  |  |
| **Reasoning/Warrant: What does your evidence mean?  Why does the IV and DV have that relationship?  Include unit vocabulary in your explanation.**When we studied about molecules we learned that the bonds can break down with the help of catalyst molecules called enzymes. The molecules in the gum would be long chain molecules called polymers and I believe that the enzymes in my saliva help to break down the bonds in the long chains to produce smaller molecules called monomers. The longer the gum was in my mouth the longer the enzymes had to work on the molecules in the gum and the fewer long chain polymer molecules would be available to stretch when I blew my bubbles. If there were only short molecules (monomers) left than my bubbles wouldn’t be very big.  |  |
| Paragraph 2 |  |
| **Hypothesis Supported?:  (What did you think was going to happen?  Did the data support that or not?)**I thought the longer I chewed the gum the softer and more stretchy the gum would get so I could blow bigger bubbles but that is not what happened. My hypothesis was not supported by the data.  |  |
| **Errors:  (What are two ways your data could have become less reliable? Why would your data have been affected?  How could you have changed the lab to remove these?- Usually things you didn’t keep constant)**We averaged our data with other lab groups but now I realize we should have taken in consideration the amount of saliva is going to be different in each person’s mouth. Some people were also chewing faster than others so it is not a fair comparison if we didn’t control these variables and keep them constant. It is impossible to control the amount of saliva in a person’s mouth but we could have had every one chew at the same rate.  |  |
| **Conclusive Data? (Do you feel like your results show a clear-conclusive- answer to your question?  Why? Was there a big difference between your control and experimental groups? Was there a clear pattern in the results? If not why?)**However, even though there were errors I do believe those had a minor impact because all the groups showed smaller bubbles with more time and there was a big difference between the control group and experimental groups (2cm smaller which was 33% less). I feel that with the repeat trials and clear similarities between lab groups that my data is conclusively shows that more chewing time decreases the size of the bubbles you can blow.  |  |

\* Be sure all work is in full sentences.  This is a template for writing the analysis paragraphs.