#  Biology Investigation and Experimentation Graphic Organizer Name: Block: Date:

|  |  |
| --- | --- |
| EXPERIMENTAL DESIGN AND DATA COLLECTION | RESEARCH QUESTION: What are you testing? |
| PROCEDURE: What are you going to do? (Summarize the procedure) | **What do you think will happen?** |
| HYPOTHESISIf \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, then \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. *I do this… …I think this will happen.* |
| DESIGN |
| **Independent Variable** Determines*(the thing you changed/manipulated)* | **Dependent Variable** *(the thing you measured/responding)* | **Constants** *(all the things that are the same between each run)* | **Control Run** *(the baseline that you compare everything to)* |
| **Experimental Run(s)** *(the runs or trials that you changed things)* |
| DATA y |
| Table

|  |  |  |  |
| --- | --- | --- | --- |
|  | x | y1 | y2 |
| *Label:* |  |  |  |
| *Units:* |  |  |  |
| *Data:* |  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

 | Observations | Sketch Your Graph x:::::::Desktop:Screen shot 2011-12-08 at 11.01.11 AM.png | *Does the graph have…?** *Descriptive title*
* *DV on y axis*
* *IV on x axis*
* *Units on axes*
* *A legend*
 |
| ANALYSIS: What does your GRAPHED DATA tell you about the PROBLEM in this experiment?*(Provide one sentence that connects the results in your graph to what you were trying to find out.)* |

*Modified from the Claremont Unified School District by Cheryl Fiello, Linda Moule, Marizka Rivette, Sarah Woods, and Eric Tucker. Funding provided by the UCLA TIIP Grant (2011-2013).*

#  Biology Scientific Writing and Common Core Graphic Organizer Name: Block: Date:

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| --- | --- |
| **ANALYSIS AND CONCLUSION** | **INTRODUCTION** |
|  | What were you trying to find out? |
| What did you do to find it? |
| What did you think would happen? |
| **THESIS STATEMENT** |
| What is your ONE most important piece of data you collected? | Why did you do this lab? | How good are your results? |
| **BODY** |
|  |  | *Paragraph 1* | *Paragraph 2* | *Paragraph 3* |
| *Concrete Statements*  | *1* | Restate your research question and hypothesis. | List three variables that you didn’t control. | What are the sources of error in this experiment? |
| *2* | State the results of your experiment (use data from your lab). | BONUS: List any additional uncontrolled variables. |  How could you fix those errors? |
| *3* | Was your hypothesis right? Why did you think that would happen (evidence)? | Describe any other problems that happened when collecting data. |  If we did this lab again, what other  independent variables could we test? |
| **CONCLUSION** |
|  | Restate your thesis in different words. |
| What is so important about this lab to our learning? |
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