***Biology 12***

***Water Bacteria Lab Inquiry 🡪 Peer Review***

**Scientist: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Peer Reviewer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Section** | **Content** | **Yes/No** | **Suggestions for improvements** |
| **Big Question** | * A what, why, when, if statement
 |  |  |
| * Lists BOTH independent variables and macromolecules being tested
 |  |
| **Background Research** | * 5 questions that relate to the big question
 |  |  |
| * An answer to each of the big questions (about 5-10 sentences each)
 |  |
| **Hypothesis** | * Is a guess as to what you think would happen
 |  |  |
| * Includes a scientific reasoning as to WHY you think this will happen
 |  |
| **Variables** | * Lists the Independent Variable (what you change)
 |  |  |
| * Lists the Dependent Variable (what you measure)
 |  |
| * Lists the Control Variable (distilled water)
 |  |
| **Safety** | * Includes how to keep yourself safe as a scientist
 |  |  |
| * Includes how to keep your classmates safe in a communal lab
 |  |
| * Includes how to keep your experiment safe (uncontaminated)
 |  |
| **Procedure** | * The format is a 1., 2., 3. (step by step)
 |  |  |
| * It includes agar recipe
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| * It includes description of how to plated your samples
 |  |
| * It includes description of how to gram stained
 |  |  |
| **Observations** | * Every photo used includes a 1 sentence description
 |  |  |
| * Picture of petri dishes and picture of gram stains
 |  |
| **Data Table/graph** | * Data table is labelled (1 sentence to explain what it shows)
 |  |  |
| * Table includes total number of colonies
 |  |
| * Table includes number of TYPES of colonies
 |  |  |
| **Conclusion** | * 2 sentences total. Hypothesis approved or rejected. (each macromolecule conclusion separate)
 |  |  |
| **Sources of Error** | * Explanation of errors in your method and how it impacted results
 |  |  |
| * Explanation of errors with your number of trials and how it impacts your average
 |  |
| * Explanation on how anything might impact your results such as temperature, humidity and chemicals
 |  |
| **Discussion** | * A paragraph explaining how this experiment might help people/society
 |  |  |
| * An experiment explaining any ethical issues with this question
 |  |
| * A paragraph explaining what your main learning in this experiment has been
 |  |
| **Areas of Further Study** | * A paragraph explaining 3 other questions, on a similar topic
 |  |  |
| **Bibliography** | * Have your listed all the websites that you used for your research?
 |  |  |

**Final Summary (two stars and a ladder)**

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| --- | --- |
| Well done See the source image |  |
| Well done See the source image |  |
| See the source imageTo work on 😊 |  |