⇋Vir→tual° Lab: C°hemi°c₊al° -Bondıng

INTRODUCTION

HYPOTHESIS

MATERIALS:

PROCEDURE:

DATA & ANALYSIS (Build-a-Molecule Worksheet)

#	RESPONSE	ANSWER	JUSTIFICATION
1	[which letter answer is correct]	[what image is it that corresponds with the letter you chose]	[***why*** is your response correct; using scientifically relevant vocabulary and reasoning]
2			
3			
4			
5			
6			
7			

CONCLUSION

In an attempt to aid you in properly executing the assignment, please review the following details and resubmit your assignment with those changes, keeping in mind for **ALL FUTURE VIRTUAL LABS THIS FORMAT MUST BE INCLUDED** (unless otherwise stated within the assignment):

OBJECTIVE/INTRODUCTION: what are you doing the investigation/experiment for? What is its scientific purpose (this information is listed for you above within the assignment guidelines)? You can also write a brief summary about the major topic/theme of the lab/experiment as an introduction to your reader.

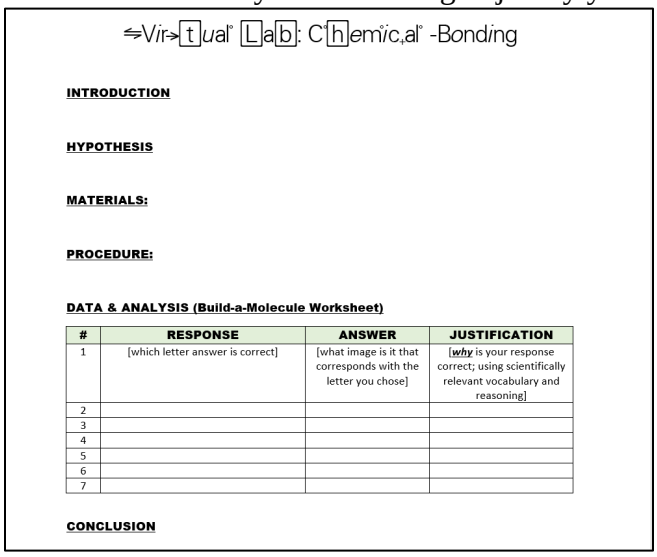
HYPOTHESIS: based on your preexisting knowledge about the types of chemical bonds that exist (covalent, ionic, metallic), what you've learned from the lessons leading up to this virtual lab, and what you learned from the online simulation, what is your educated guess as to what will happen when atoms attempt to bond together?

MATERIALS: what are you using to complete your lab/experiment (think of it like a recipe: what are your ingredients? What are you using to "cook"? In this case, you are using the website [https://pbslm-contrib.s3.amazonaws.com/WGBH/conv20/lsps07-int-chembonds/index.html] as a simulation and the Build-a-Molecule worksheet)?

PROCEDURE: how are you completing your lab/experiment (again, think of it like a recipe: what are the steps you are completing to make the item you want to cook? So, what are the steps you are completing in order to "do" this virtual lab?)

DATA: what information (qualitative [using your senses] and quantitative [using numbers]) did you gather from your lab investigation/experiment? This information is typically presented within a table, graph, or chart to show your reader the information easily.

ANALYSIS: what did the data you obtain *mean*? Explain what you observed using appropriate scientific vocabulary and reasoning to justify your observations.



⇋Virtual Lab: Chemical Bonding

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CONCLUSION

****** For this particular lab, your DATA and ANALYSIS should be presented where you would have placed the answers and preferably the images from the Build-a-Molecule worksheet within a table which provides in one area the answer, and the other area an explanation as to WHY you selected that answer using appropriate scientific vocabulary and reasoning to justify [explain] your response).***

Data & Analysis Example ***(DO NOT USE THE EXACT SAME WORDING IN YOUR LAB REPORT, AS THAT IS PLAGIARISM)***

#	ANSWER CHOICE	RESPONSE	ANALYSIS (Justification)
1			*Atoms are the smallest, most basic components of all matter. They are independent from each other, as when they are linked together they make more complex things called "compounds" or "molecules." Option B shows those individual nitrogen and oxygen atoms linked (or bonded) together, and therefore would NOT qualify as simple basic atoms that are independent of each other.*

CONCLUSION: within this section you would provide a summary of your entire lab investigation/experiment. This is where you essentially discuss your findings, and what it all means (why did the molecules bond together like they did? Is there a specific reason why certain atoms bond together when others don't). Within this section you should really use your understanding of the content to explain, justify, and summarize your scientific observations and results, and even confirm or deny the original hypothesis you discussed earlier within the lab report.

Please review these guidelines and the detailed instructions provided, and resubmit your assignment in a proper lab report format within a Word or Google .doc or .pdf.

If you still have questions regarding the scope of this assignment, and how to execute it properly, please do not hesitate to contact me via Microsoft Teams' Chat and/or email (tjohnson@americanhighschool.org) prior to resubmitting (I'm always free to proofread your assignment prior to you actually submitting it).