🌳*How are trees important?*🌳

Performance Task: Students will use the following checklist and outline to create an experiment to study the effects that trees have on the environment or living things. They will design the experiment, collect data, analyze their data, and write a conclusion about their findings.

Directions: Complete the checklist to help you write a lab report about the importance of trees.

People working in your group:

Checklist for scientific lab report:

Why do trees make a difference? From the presentation, choose one reason you want your research to focus on.	
Definitions and Examples	**Your own information**
Scientific Question A question that identifies your variables in the experiment (cause and effect). Example: ***How do trees decrease the outside temperature?***	
Experimental Procedure This will include the list of materials needed for the experiment and the general procedure about running this experiment.	
Hypothesis A possible answer to your question (an educated guess). Example: ***Having trees decreases levels of stress in humans.***	
Variables Independent Variable- the factor being tested (what you change). Example: ***The amount of trees***	Independent Variable: Dependent Variable:

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<td>Dependent Variable- the factor that's being observed (what you're measuring)
Example: Water flow rate

Controlled Variables- elements which are constant and unchanged
Example: amount of water, type of substrate, etc..</td>
<td>Controlled Variables: time of day,</td>
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<td>Data Table
This is an organized table that contains the data from your experiment. It should identify your control group, experimental group, and the data you collected. Make sure it has a title that clearly states what the information in the data table is about.

Can be done on paper.</td>
<td>Data Table:

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<td>Graph
This is a visual representation of your data. Make sure you follow all of the graphing rules we have gone over in class. Label your axes, use an appropriate number scale, space your numbers properly, give it a title, make a key, and make sure your points are plotted correctly.

Make sure you do 1-2 rough drafts of your graph on paper.

Can be done on paper or google sheets and pasted here →</td>
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<td>Conclusion
This is a summary describing to the reader what you were investigating, what data you collected, if your data supports or refutes your hypothesis,</td>
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and explains what you learned from the experiment. *Check below for an outline/example.*	

Conclusion Outline:

1. Introductory Paragraph: This paragraph should state what you were studying in the experiment.
    a. Example: In this experiment we tested to see if the abundance of trees would improve human health by reducing the number of stress. The sense of well being…
2. Body Paragraph: These sentences should include specific data from your experiment and if the data supported or refuted your hypothesis. Remember the reader will need to be reminded of what your hypothesis is before you explain if it is supported or refuted.
    a. Example: We tested 3 separate and different areas. One had 5 trees and the other had none…This supported our hypothesis because…
3. Conclusion Paragraph: These sentences should state what you learned from this experiment and maybe even next steps.
    a. In conclusion, having trees in the city has a cooling effect … A future experiment might test…