3D Printer Project Rubric

3D Printed Object:

	5 - 4	3 - 2	1 - 0
Theme (10 points)	Student took the request of the teacher or staff member seriously, creating a purposeful object that shows appreciation.	Students created an object but either did not follow the wishes of the teacher or created an object that is not useful (keyring doesn't have a hole in it, etc.)	Object does not seem to be for any particular person or need.
Color Scheme (5 points)	Students only used 1-3 colors and utilized the current 3D Printer filament colors available.*	Students utilized a minimal color pallet but included colors not available or included more than 3 colors.	Color scheme is random and does not match our current colors.
Size (5 points)	Object is less than 8cm tall, and its other dimensions are reasonable for the object type. The height of text is 1-2.5mm tall, and boxes are only 2-3mm thick on all sides.	Object is over 8cm tall, or other its dimensions are not reasonable for the object type. The height of text is too tall or short, or thickness of box sides are too thick or thin.	Student did not measure or think practically about how their object would function.
Detail (5 points)	Object shows a high level of detail. Students enhanced their design by utilizing features such as inserting text, SVG image files, Google Drawing files, holes, and/or used multiple workplanes.	Object shows some detail, but not much time was spent making the object.	Object is a basic shape with little to no detail added.
Teamwork (5 points)	Students did their fair share of brainstorming, planning, designing, and writing.	Student somewhat contributed to their team.	Student did not contribute to the group project.

*See teacher for colors available

3D Print Project Report:

	5 - 4	3 - 2	1 - 0
Amount of Info.	All topics are addressed with at least three lines written for each section.	All topics are addressed with at least two lines written about each section.	One or more topics were not addressed and sentences were lacking.
Quality of Info.	Information clearly relates to the main topic. Includes several supporting details, showing students' creativity.	Information relates to the main topic. Few details and/or examples given.	Information has little or nothing to do with the main topic.
English	Minimal capitalization, spelling, grammar, and punctuation mistakes.	Several capitalization, spelling, grammar, and punctuation mistakes.	Multiple capitalization, spelling, grammar, and punctuation mistakes.

How to Do Your Fair Share

3D Printer Project Rubric

Creating a 3D project with a team does not mean that everyone is doing the same thing at once. Here are some tasks you can do for your group:

1. Lead or participate in a group discussion on what the 3D object should look like
2. Discuss how to show the recipient's personality/interests in the object
3. Create interview questions to ask the recipient to learn more about his/her personality or interests or find out what he/she needs for his/her classroom
4. Brainstorm by sketching the design of the object on a white board
5. Sketch the design of the object on paper with measurements added
6. Grab a ruler and make sure the dimensions of your object make sense
7. Design the object in TinkerCAD
8. Communicate with others when the workplanes need to be changed
9. Copy and paste objects in TinkerCAD that you need more of
10. Edit your design by changing the color scheme to the colors we have available
11. Edit your design by changing the Snap Grid to .25 or and adjusting objects precisely
12. View the object from multiple angles and make adjustments to design when needed
13. Make sure your 3D object is printable - objects aren't hovering in air, all objects are measured precisely and attach to each other well
14. Look up tutorials on Youtube or online when you don't know how do something
15. Look up examples of other 3D objects to get ideas for your own project
16. Explore TinkerCAD's features to see what shapes or objects you can utilize
17. Search for, download, and import relevant SVG files
18. Convert JPG or PNG files to SVG files
19. Help decide how your group will your objects into two groups (red and blue)
20. Send a person or two to Ms. Beck to ask how to do something