Cube Project CMM 2

The object of this project is to create a 3D puzzle cube using different tools in the shop. You are to make a plan and bill of materials. You are allowed to do minimal sanding, but nothing that will change the shape of your block significantly. You must apply a finish.

1. Complete a drafted plan of your cube containing three different views: Top, Front, and Side = 15 pts
2. Complete a bill of materials of your cube. = 10 pts
3. Mill up material for your cube.
4. Glue up your cube
5. Cut your cube into a cube.
6. Layout the pieces on one side.
7. Cut out the pieces.
8. Tape together.
9. Repeat steps 6-8 for the other sides.
10. Sand with three different grits.
11. Apply a finish.
12. Buff pieces.

Restrictions:

* Your cube cannot be smaller than 2 x 2 x 2 or larger than 4 x 4 x 4
* You cannot use walnut, hard maple, or oak for this project
* Think about machine limitations!!!
* You must follow all safety rules.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_ Grade: \_\_\_\_\_ / 40 pts

Cube Project Rubric

Self-Evaluation = \_\_\_\_\_\_\_ /4 pts Drafted Plan = \_\_\_\_\_\_\_ / 10 pts 3 Patterns \_\_\_\_\_\_ /6 pts

1. What was hard about this project?
2. What was one thing you liked about this project?
3. What is one NEW thing that you learned during this project? (2 pts)

Rubric = \_\_\_\_\_\_\_\_ / 20 pts

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5 | 4 | 3 | 2 | 1 |
| You used 3 different puzzle patterns on the cube. | You used 2 different puzzle patterns. | You used 1 different puzzle pattern on the cube. | You followed my pattern. | You didn’t follow a pattern ☹ |
| Your cube matched your plans. | Your cube was slightly different from your plans. | Your cube was much larger or smaller, but looked like your plans. | Your cube didn’t look like your plans, but it looked nice. | Your cube was not even close to a cube. ☹ |
| Sanding - Project has all smooth edges and surfaces; there are no marks. | Sanding – Project is smooth some surfaces could have had more sanding. Some marks. | Sanding – Project is a little rough; there are obvious sanding and machining marks. | Sanding – Project is rough. You needed to spend more time sanding. | Sanding – Project is barely sanded. There are many marks. |
| Finish Work – You applied 2 coats and buffed. | Finish Work – You applied 2 coats, but did not buff. | Finish Work – You applied 1 coat and buffed | Finish work – You applied 1 coat but did not buff | Finish work – You chose not to apply a finish. |