**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Total Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| --- | --- | --- | --- |
| **Rubric for Engineering Design** | | |  |
| *Did Student Meet the Project Goals/Criteria?* | | | |
| 1 point | 2 points | 3 points | Score |
| The roof design caught less than half the water. | The roof design caught half a cup of water. | The roof design caught a full cup of water. |  |
| The roof leaked. The inside of the building had half a cup of water. | The roof leaked a little. There were trickles of water on the inside. | The roof did not leak. The inside remained completely dry. |  |
| The inside of the building has more than one added structure and the living space is reduced by half or more. | The inside of the building has one structure added, but interference with living space is minimal. | The inside of the building is all free living space. |  |
| **Subtotal** | | |  |
| *Did Student Use Science and Engineering Practices?* | | |  |
| The engineer asked one simplistic question and only sees a basic problem. The engineer might ask how can we save water. Or the student might define the problem by focusing on the drought without referencing the need to conserve water. | The engineer asked several questions and defined a problem. The engineer might ask questions such as how to make a roof that meets all of the criteria. The problem might be simplistic and just refer to the exact problem of how much water can be harvested. | The engineer asked several thoughtful questions and clearly defined more than one problem. The engineer might wonder how the exploration of materials would inform their design. The engineer might wonder how to design the building on a smaller budget. |  |
| The group’s model indicates poor understanding of the design criteria. | The group model clearly addresses at least one of the project’s design criteria. | The group’s model meets all the design criteria in superior and creative ways. |  |
| The group discussed their plan but did not complete it. The construction was not completed in the time allotted. | The group planned their design and they constructed it but did not bring all of their ideas to fruition. | The group planned the design thoughtfully and carried out the construction fully. |  |
| **Subtotal** | | |  |
| *Did Student Work with Group Members?* | | |  |
| Student usually stopped talking when it was someone else’s chance to speak and on occasion indicated that they had heard their teammate’s idea. | Student listened when other group members were speaking and sometimes indicated they understood what their teammate had said. | Student listened fully to others’ ideas and indicated clear comprehension in their reactions. Student sought out peer’s ideas and took turns. |  |
| Students contributed ideas when asked but did not initiate contributions on their own. | Student stated their ideas but seemed hesitant to contribute at times. | Student clearly articulated their design ideas without dominating other group members’ participation. |  |
| Student sought to resolve group problems but didn’t have the skill or tact to effect satisfactory solutions. | Student attempted to resolve problems with teammates but was rarely effective with their interventions. | Student constructively sought to resolve issues that arose in their group and showed effective conflict resolution skills. |  |
| **Subtota**l | | |  |
| **TOTAL** | | |  |