**Soundproof System Engineering and Presentation Rubric**

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| **Criteria** | **4** | **3** | **2** | **1** |
| **Research and Planning** | Demonstrates a thorough understanding of soundproofing principles and develops a clear hypothesis for testing. | Shows a good grasp of soundproofing principles and formulates a hypothesis for testing. | Displays basic knowledge of soundproofing principles with a vague hypothesis for testing. | Shows limited understanding of soundproofing principles without a clear hypothesis for testing. |
| **Materials and Construction** | Selects and justifies materials effectively; implements the project with precision. | Chooses appropriate materials and provides some justification; executes the project competently. | Uses materials without clear justification; construction is somewhat effective. | Material selection lacks justification; construction is incomplete or ineffective. |
| **Effectiveness and Creativity** | Conducts thorough sound tests; demonstrates innovative and effective solutions. | Conducts sound tests; shows creativity in addressing soundproofing challenges. | Attempts sound tests; shows some creativity in problem-solving. | Does not conduct sound tests; lacks creativity in addressing challenges. |
| **Hypothesis Testing** | Designs and executes a comprehensive hypothesis test related to the soundproofing project, analyzing results effectively. | Conducts a hypothesis test related to the project, with some analysis of results. | Attempts a hypothesis test but lacks depth in analysis or execution. | Does not conduct a hypothesis test or analyze results. |
| **Presentation and Teamwork (if applicable)** | Presents project clearly and engagingly; collaborates effectively with team members. | Communicates project details effectively; demonstrates some teamwork skills. | Presents project with some clarity; shows limited teamwork skills. | Presentation lacks clarity; does not demonstrate teamwork skills. |