**Title:** Performance-Based Rubric

**Project Title: If You Build It, Will It Fly??????**

**Grade Band Team:** 6-8 C

**Team Members:** Shanon Rodenberg, Bruce Brewer, Jean Polk, Steve Schauf, Roxanne Kravik, Brenda Freit,

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**Description:** Students will design and build a glider based on what they have learned about the forces of flight and necessary design requirements of all airplanes. Students will participate in a variety of lessons including: observing the necessary parts of a plane, forces of flight, Bernoulli’s Principle, and Newton’s laws of motion. Students will then design, test, revise, and fly their gliders with the goal of flying it in a straight path, covering as much distance as possible.

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| **Grading Criteria** | **Points possible** | **Rating Scale** | | |
| Participation in flying and making observations with the demonstration glider | 10  Scale X 2 | 1  Minimal participation and little to no observations made | 3  Participated with some observations made | 5  Participated in flying and wrote observations |
| Diagram of Bernoulli’s Principle | 5  X 1 | 1  Diagram little evidence of understanding the principle | 3  Diagram shows one of the 2 pressures correctly | 5  Diagram shows high and low pressure with arrows |
| Completed Pre and Post Gizmo Quiz | 5  X 1 | 1  Completed only the pre-quiz | 3  Completed only post-quiz | 5  Completed pre and post quizzes |
| Designed and Constructed a Glider | 20  X 4 | 1  Design did not keep in mind necessary components of flight | 3  Design reflects necessary components of glider, has revisions but lacks documentation | 5  Design reflects necessary components of a glider, revisions based on experimentation with documentation |
| Notes | 15  X 3 | 1  Minimal notes from the 3 lessons | 3  Has notes, but not complete | 5  Forces of flight \_\_\_\_\_  Design and construct\_\_\_  Let ‘em Fly \_\_\_\_ |
| Participation in the Team Flight Activity | 10  X 2 | 1  Flight chart not completed. Poor cooperation. | 3  Chart completed but not consistent with data | 5  Team effectively worked together to complete the flight chart and make design improvements. Team cooperation. |
| Post-Assessment | 15 | --------- | --------- | Score based on # of questions answered correctly |
| Unit Reflection | 10  X 2 | 1  Paragraph that answers at least 1 of the required questions | 3  Paragraph that answers at least 2 of the required questions | 5  Quality paragraph that answers: what you’d do different, what you did well, and what you learned. |
| **Completed Unit** | 80 Pts |  |  |  |