Name: __________________________

**Engineering Project**

**Background**
Louis Pasteur said, “Chance favors only the prepared mind.” Engineers think about and design solutions to real-world challenges in society. Chemists and other scientists examine the physical world and attempt to explain how and why it is the way it is. Scientists and engineers need to work together. Engineering without science could be haphazard. Without engineering, scientific discovery would be a merely an academic pursuit. To be successful in chemistry you need to develop your scientific, communication and problem solving skills. Through this simple, hands-on activity you will get an idea of some of the skills needed to engage in scientific inquiry and engineering design.

**Materials**
- A box of pieces for your building project

**Procedure**
1. Read the tasks given below including the follow-up questions, and then divide the duties for your group:
   a. One report needs to be written for your engineering group.
   b. Your report should include a thoughtful, developed plan: Write and number the steps you plan to take from start to finish in constructing your project. These steps should be specific enough to be reproduced by someone else.
   c. Follow your plan step by step to construct your project.
   d. Record all observations and any problems or changes made to the original plan during construction.

**Follow-up Questions**
Answer the following and include your responses in your group’s engineering report:
1. How did you divide the duties to accomplish your task? Describe the role of each person in your group.
2. Did your “building project” go as planned? With what step (or steps) did you encounter a problem or need to make a change?
3. How did you resolve any problems encountered?
5. What could you have done differently to improve your design?