Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd\_\_\_\_\_

**Learning the Engineering Design Process: Paper Box**

Build a box that holds 75 lbs using only 4 feet of tape, 1 piece of paper and 5 index cards. Use 2 index cards as the box and put anything on the inside of the two index cards. Go through the Engineering Design Process to help you complete this challenge.

**1. Ask:** List **3** possible questions that will help you as you begin the design process.

**2. Imagine:** List and sketch **4** possible solutions below.

**3. Plan:** Once you have chosen a solution(s) draw it below.

**4. Create:** Build and test out your first design.

How much weight did it hold? What went wrong? What went right?

**5. Improve:** As you continue through the design process continue to ask new questions, sketch and describe new ideas for improvement and create a second third or even fourth design.

**6. Ask:** 2 New Questions

**7. Imagine:** 2 New design ideas

**8. Plan:** Draw your 2nd plan here

**9. Create:** Results of tests: (Weight held)

Second Try:

Third Try:

Fourth Try:

**10. Improve:** How did you improve your initial design?