Student Name: _____ **Date:** _____

Engineering Design Process Worksheet

Directions:

Watch "Intro to the Engineering Design Process" and complete the sections below and complete the worksheet.

Video (please click to view): Intro to the Engineering Design Process

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Part 1: Vocabulary

1. **Prototype**
   Answer:

2. **Constraints**
   Answer:

3. **Brainstorming**
   Answer:

Part 2: Understanding the Steps

4. **List the six main steps** of the Engineering Design Process in order:

   1. _____
   2. _____
   3. _____
   4. _____

5. _____
6. _____

5. **In which step** do engineers build a model or prototype?
   Answer:

6. **What should engineers do** if their solution fails testing?
   Answer:

Part 3: Application

7. *Scenario: Problem Scenario:* Students at your school keep slipping on wet hallways when it rains.
   Use the Engineering Design Process to plan a solution. Write 1–2 sentences per step.

- **Ask (What is the problem?):**

- **Imagine (Possible solutions?):**

- **Plan (Which idea will you try?):**

- **Create (What will you build?):**

- **Test (How will you check it?):**

- **Improve (How could it be better?):**

Part 4: Reflection

8. **Why is testing and improving** designs important instead of stopping after one failure?
   Answer: