Name:	Date:	Class:	

## **Engineering Design Process Pre-/Post-Test Answer Key**

## 1. What is the engineering design process?

The engineering design process is a series of steps that engineers follow to come up with a solution to a problem. Many times the solution involves designing a product that meets certain criteria and/or accomplishes a certain task.

## 2. Why is it important to use the engineering design process for solving problems?

By having a systematic way of looking at and designing solutions for problems that exist in the world, we are able to use the engineering design process, an iterative process, to ensure that we develop the best solution possible. Carefully following all the steps, creating legible designs, recording data collected during testing phases, and communicating results, enables others to be able to pick up the project and work on it where it was left off, in order to improve the solution.

## 3. Place the steps of the engineering design process in order.

Choose the best solution

Do background research

Do development work

**Brainstorm solutions** 

Test and redesign

Identify the need (define the problem)

Communicate the results

Specify requirements

Build a prototype

- 1. Identify the need (define the problem)
- 2. Do background research
- 3. Specify requirements
- 4. Brainstorm solutions
- 5. Choose the best solution
- 6. Do development work
- 7. Build a prototype
- 8. Test and Redesign
- 9. Communicate the results