NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PD:\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_

**Engineering Design Process Pre/Post-Assessment**

1. Technologists and engineers use the design process to find \_\_\_\_\_\_.
	1. solutions to technological problems.
	2. other professionals to work with
	3. less expensive methods of conducting research.
2. Which step in the design process uses a decision matrix?
	1. Present Solution
	2. Develop a Solution
	3. Construct and Test Prototype
3. The Design Process is a \_\_\_\_\_\_ solving method.
	1. technology
	2. scientific
	3. problem
4. Which step in the design process uses or creates a design brief?
	1. Present Solution
	2. Define the Problem
	3. Generate Concepts
5. A bill of materials should include (choose all correct answers):
	1. Unit of Measurement
	2. Quantity
	3. Description of Material
6. When solving a problem using the design process, it is likely you will \_\_\_\_\_\_\_\_\_\_.
	1. not be able to determine a single solution.
	2. make several attempts before finding the best solution.
	3. find the best solution the first time.
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the creation of a product or introduction of a process for the first time.
	1. Problem Solving
	2. Innovation
	3. Invention
8. A \_\_\_\_\_\_ is used to rate design ideas against each other.
	1. Decision Matrix
	2. Venn Diagram
	3. Survey
9. A technical drawing is used in "Develop a Solution" and should include (choose all correct answers):
	1. Illustration of the final product
	2. Directions
	3. Title
	4. Bill of Materials
10. A functional replica of a solution that is suitable for testing is a \_\_\_\_\_\_\_\_\_.
	1. Prototype
	2. Model
	3. Sketch
11. A scaled down replica of a solution that is not suitable for testing and is more for a visual evaluation of the design is a \_\_\_\_\_\_\_\_\_.
	1. Prototype
	2. Model
	3. Sketch
12. The limitations of a design are called \_\_\_\_\_\_\_\_.
	1. Considerations
	2. Criteria
	3. Constraints
13. The steps of the design process are arranged \_\_\_\_\_\_ .
	1. around a loop
	2. randomized set of steps
	3. single path system
14. There are \_\_\_\_\_ steps in the design process.
	1. 4
	2. 6
	3. 8
15. Number the steps of the design process in order, with “1” being the start and “6” being the end.
\_\_ Generate Concepts
\_\_ Present Solution
\_\_ Develop a Solution
\_\_ Construct and Test Prototype
\_\_ Evaluate Solution
\_\_ Define Problem
16. What negative consequences could result if a designer/engineer does not pay attention to the criteria/constraints provided by the client?
17. “A cell phone is an innovation… not an invention!” Argue for or against this statement.