



Engineering Design Process

Name: _____

Date: _____

Grade: Grade 3

Part A: Fill in the Blank

Write the missing word or number on each line.

1. A _____ is a limit on a design, like time or materials.
2. The rules for success in a design are called the _____.
3. If a bridge must hold 10 blocks, that rule is a _____.
4. Using only 20 straws is a material _____ for the design.
5. Engineers draw a _____ of the design before building.
6. A working test model of a design is called a _____.
7. Grade 3 scientists _____ their prototype to see if it works.
8. If the design fails, engineers _____ it and try again.
9. Repeating the design cycle to make a better design is called _____.

Part B: Matching

Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

Ask step	→ _____	Draw a sketch of the design
Plan step	→ _____	Change the design after testing
Create step	→ _____	Build the prototype
Improve step	→ _____	Write down what the problem is

Part A: Fill in the Blank

Write the missing word or number on each line.

1. A constraint is a limit on a design, like time or materials.
2. The rules for success in a design are called the criteria .
3. If a bridge must hold 10 blocks, that rule is a criterion .
4. Using only 20 straws is a material constraint for the design.
5. Engineers draw a sketch of the design before building.
6. A working test model of a design is called a prototype .
7. Grade 3 scientists test their prototype to see if it works.
8. If the design fails, engineers improve it and try again.
9. Repeating the design cycle to make a better design is called iteration .

Part B: Matching

Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

Ask step	→	<u>Write down what the problem is</u>	Draw a sketch of the design
Plan step	→	<u>Draw a sketch of the design</u>	Change the design after testing
Create step	→	<u>Build the prototype</u>	Build the prototype
Improve step	→	<u>Change the design after testing</u>	Write down what the problem is