



# Engineering Design Process

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Grade: Grade 3

## Part A: Multiple Choice

Circle the best answer for each question.

1. A Grade 3 paper bridge held only 2 coins before breaking. Which change most likely makes it stronger?

- A) Fold the paper into a thicker beam shape
- B) Use a single thin flat sheet with no folds
- C) Make the bridge twice as long with no supports
- D) Remove the supports to save materials

2. A Grade 3 straw tower fell at 20 cm. What is the best next iteration?

- A) Build the same tower exactly the same way
- B) Widen the base with extra straws for support
- C) Make the base narrower to use fewer straws
- D) Skip the test step next time to save time

3. A Grade 3 rainproof cover let water through the seams. Which improvement helps most?

- A) Add tape along every seam to seal gaps
- B) Remove the cover to check the rain
- C) Use more seams with no tape at all
- D) Make the cover out of thinner paper

4. In Grade 3, why do engineers repeat the design steps instead of stopping after one test?

- A) Because the first try is always perfect
- B) Because each iteration makes the design better
- C) Because testing wastes all their materials
- D) Because rules say stop after exactly one try

## Part B: Fill in the Blank

Write the correct answer on each line.

1. Repeating the design steps to make a Grade 3 design better each time is called \_\_\_\_\_.
2. After a Grade 3 bridge breaks, engineers look at \_\_\_\_\_ to find weak spots.
3. Adding folds to a Grade 3 paper beam makes it \_\_\_\_\_ without adding weight.
4. A Grade 3 engineer who quits after one failed test misses the chance to \_\_\_\_\_ the design.
5. Each Grade 3 iteration is a chance to learn from \_\_\_\_\_ and make a better prototype.

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