



Engineering Design Challenges

Name: _____

Date: _____

Grade: Grade 4

Part A: Fill in the Blank

Write the missing word or number on each line.

1. A _____ measures how long something takes during an engineering trial.
2. A _____ measures how heavy an object is in grams or pounds.
3. Recycled materials like cardboard and _____ caps are great for cheap prototypes.
4. A _____ is a first model engineers build to test their design idea.
5. In a fair test, only _____ variable is changed at a time so results are clear.
6. A _____ goggles protect eyes from glue, paint, or flying small parts.
7. Hot _____ guns melt sticks of plastic to bond materials quickly.
8. A simple _____ helps an engineer record results from each trial in order.
9. Before testing, engineers write a _____ predicting what will happen.

Part B: Matching

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

1. Match each item to its correct answer.

Stopwatch	→ _____	Measures time
Scale	→ _____	Measures weight
Ruler	→ _____	Measures length
Goggles	→ _____	Protects eyes

Part A: Fill in the Blank

Write the missing word or number on each line.

1. A stopwatch measures how long something takes during an engineering trial.
2. A scale measures how heavy an object is in grams or pounds.
3. Recycled materials like cardboard and bottle caps are great for cheap prototypes.
4. A prototype is a first model engineers build to test their design idea.
5. In a fair test, only one variable is changed at a time so results are clear.
6. A safety goggles protect eyes from glue, paint, or flying small parts.
7. Hot glue guns melt sticks of plastic to bond materials quickly.
8. A simple table helps an engineer record results from each trial in order.
9. Before testing, engineers write a hypothesis predicting what will happen.

Part B: Matching

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

1. Match each item to its correct answer.

Stopwatch	→ <u>Measures time</u>	Measures time
Scale	→ <u>Measures weight</u>	Measures weight
Ruler	→ <u>Measures length</u>	Measures length
Goggles	→ <u>Protects eyes</u>	Protects eyes