Compare Engineering Solutions

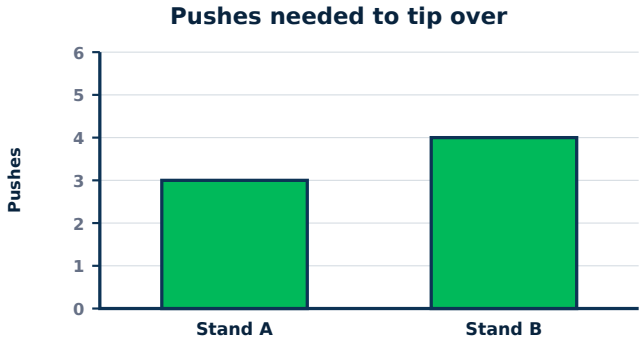
Grade 3 Science Worksheet - Building Confidence

Name _____ Date _____

Circle the answer.

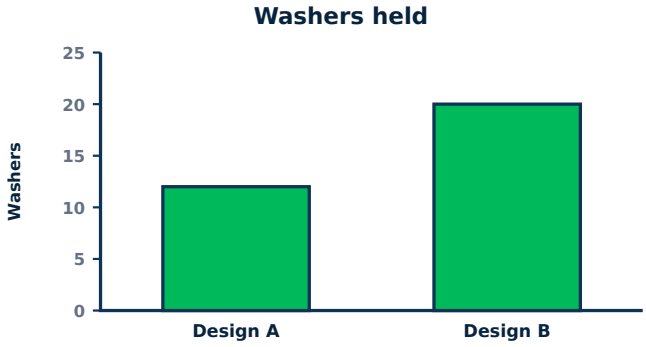
1. Why do engineers compare designs after testing?
   to find which best meets the goal
   to find which used the most tape
   to find which was built first

2. The goal is a stand that takes at least 5 pushes to tip over. Use the graph. Which stands meet the goal?



   Stand B Stand A neither stand

3. The goal is a bridge that holds at least 18 washers. Use the graph. Which design meets the goal?



   Design B Design A both designs

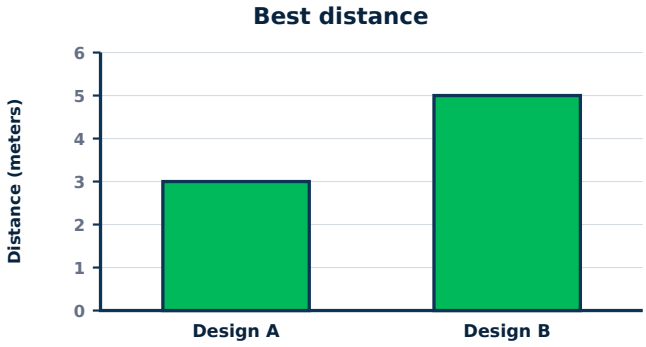
4. Which measurement should decide which bridge holds the most weight?
   how many washers each bridge held
   how long each bridge took to build
   how much each bridge weighs empty

5. Which test lets two parachutes be compared fairly?
   drop both from the same height
   drop one indoors and one outside in wind
   drop each from a different height

6. A brace must use only cardboard. Which design meets this limit?
   a folded cardboard brace a wooden plank a metal rod

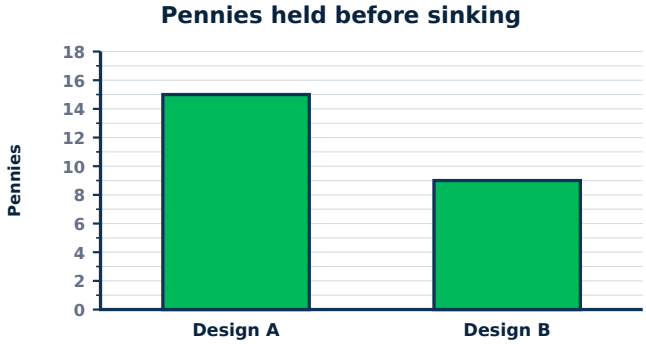
7. A test shows a ramp is too slippery for a toy car to grip. Which redesign fixes this?
make the ramp steeper add sandpaper to the ramp make the ramp smoother

8. The goal is a paper airplane that flies at least 4 meters. Use the graph. Which design meets the goal?



Design B neither design Design A

9. The goal is a foil boat that holds at least 12 pennies. Use the graph. Which design meets the goal?



both designs Design A Design B

10. Tower A is 40 cm tall but falls when shaken. Tower B is 30 cm tall and stays up. The goal is a tower that stays standing. Which meets the goal?
both towers Tower B Tower A

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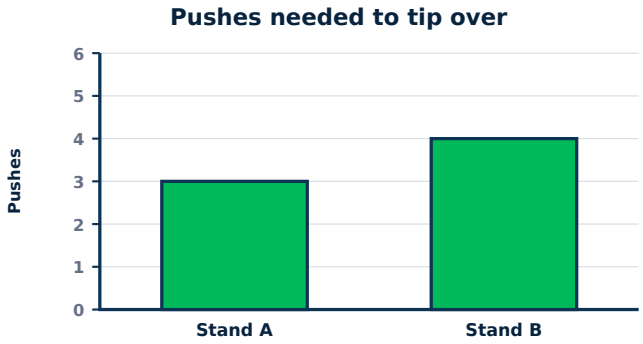
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Answer Key - Grade 3 Science Worksheet - Building Confidence

Circle the answer.

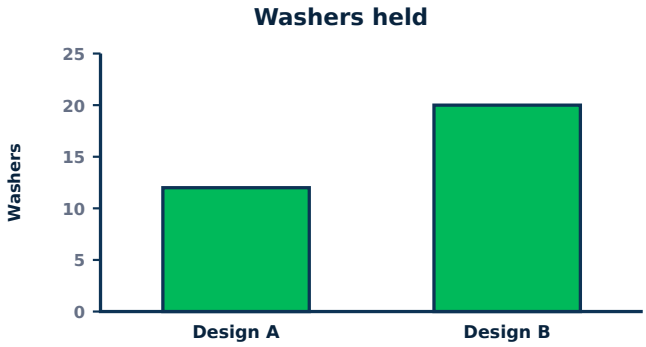
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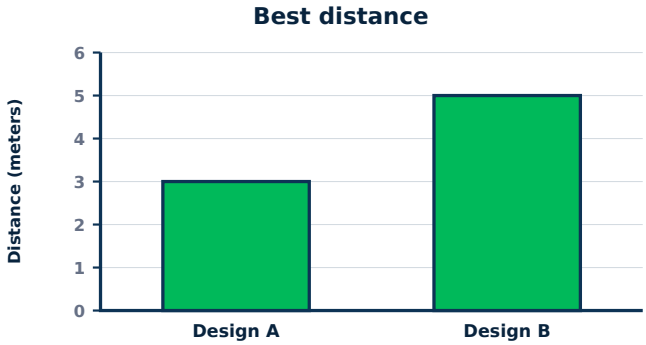
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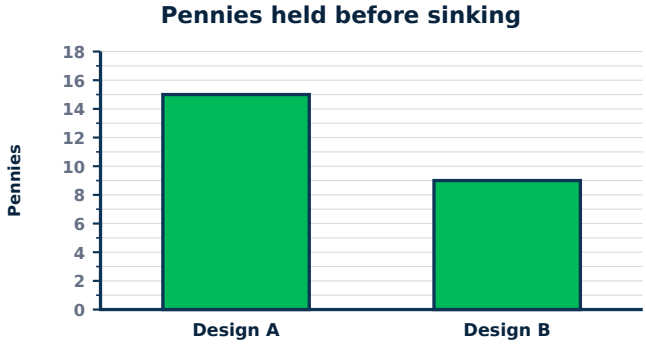
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