Compare Engineering Solutions

Grade 3 Science Worksheet

Name _____ Date _____

Circle the answer.

1. A cup holder keeps a cup upright on a flat table but not on a bumpy bus ride, which was the real goal. What does this show?

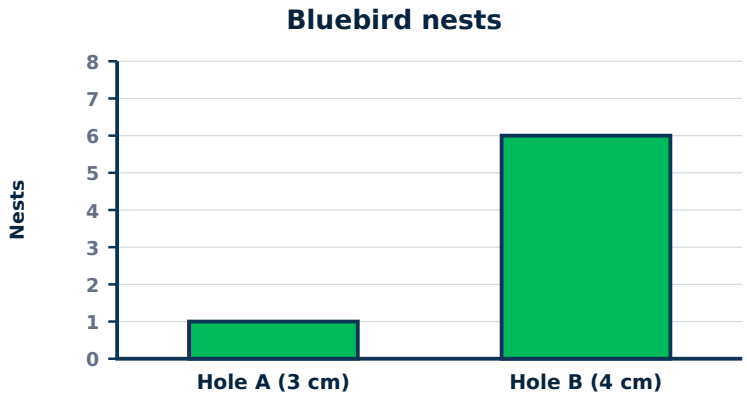
   the flat-table test proves it works on a bus

   the cup holder needs fewer tests

   the design does not yet meet the real goal

   the design is finished

2. Two birdhouses with different hole sizes were put outside for a season. Use the graph. Which hole size worked better for bluebirds?



   both worked equally well neither hole was used Hole A (3 cm) Hole B (4 cm)

3. Design A meets 3 of 5 criteria and costs less. Design B meets all 5 criteria and costs more, but it is within the budget. Which should be chosen?

   Design A Design B neither design both designs equally

4. After a redesign, a paper bridge holds the same number of washers as before. What does this suggest?

   the change made the bridge much stronger

   the change did not make the bridge stronger

   the change made the bridge weaker

   washers cannot test strength

5. Filter A cleans 1 liter of water in 10 minutes. Filter B cleans 1 liter in 4 minutes. Both make the water equally clear. Which better meets a goal of cleaning water quickly?

   both are the same speed Filter A Filter B neither cleans water

6. Lunch is 4 hours after packing. Box A keeps milk cold for 6 hours. Box B keeps it cold for 3 hours. Which meets the need?

Box A only neither box Box B only both boxes

7. A tall tower tips over. A shorter tower stays standing. What tradeoff does this show?

height versus build time height versus stability cost versus build time

stability versus cost

8. Which data table would help compare parachute designs fairly?

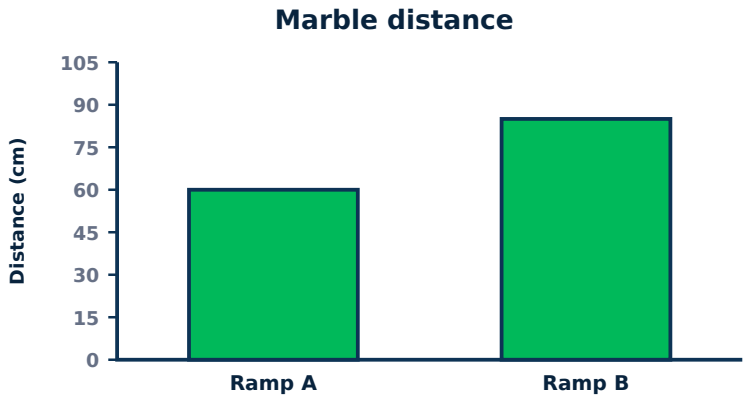
the size of each parachute only

fall time for each parachute from the same height

how many students built each one

fall time for each parachute from different heights

9. The goal is a ramp that rolls a marble at least 75 cm. Use the graph. Which ramp meets the goal?



Ramp A both ramps neither ramp Ramp B

10. Design X uses expensive material and holds the most weight. Design Y uses cheap material, holds a little less, and still meets the goal. Which better balances cost and performance?

Design Y Design X neither should be used both are equally good

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Answer Key - Grade 3 Science Worksheet

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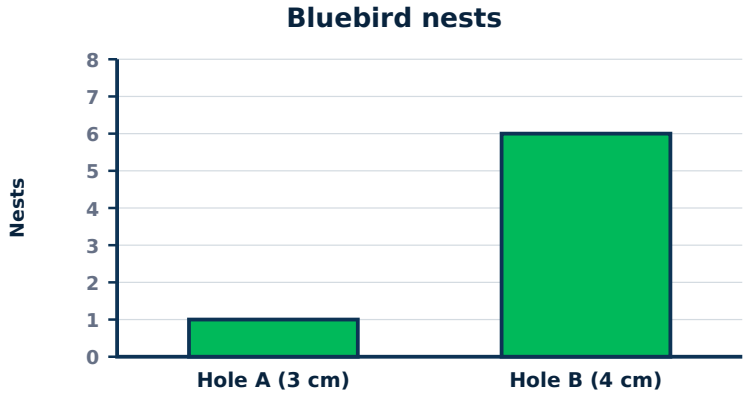
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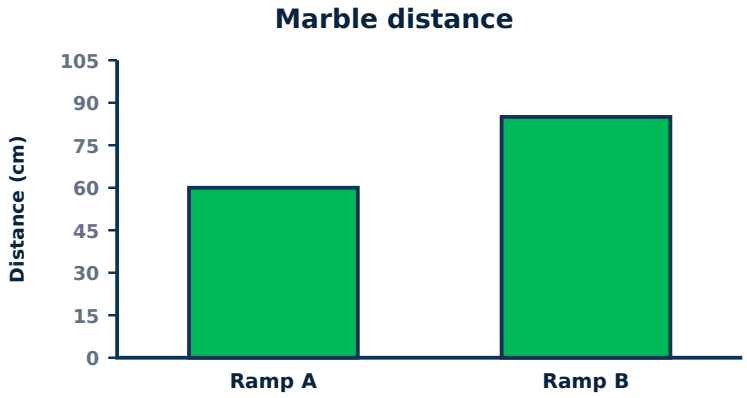
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