Compare Engineering Solutions

Grade 4 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. Turbine A made 8 units of electricity but broke in strong wind. Turbine B made 6 units and did not break. The goal is to work all winter. Which tradeoff should the team accept?

   less electricity from B to get a turbine that lasts

   more electricity from A even though it breaks

   both turbines, because both make electricity

   no turbine at all

2. Two kites both meet the flight goal. Kite A takes 20 minutes to build; Kite B takes 60 minutes. The class has 30 minutes. Which should they build?

   neither kite Kite A Kite B both kites

3. A student says, "Cooler A is best because it kept ice the longest." Cooler A costs $30; the budget is $10. What is wrong with her claim?

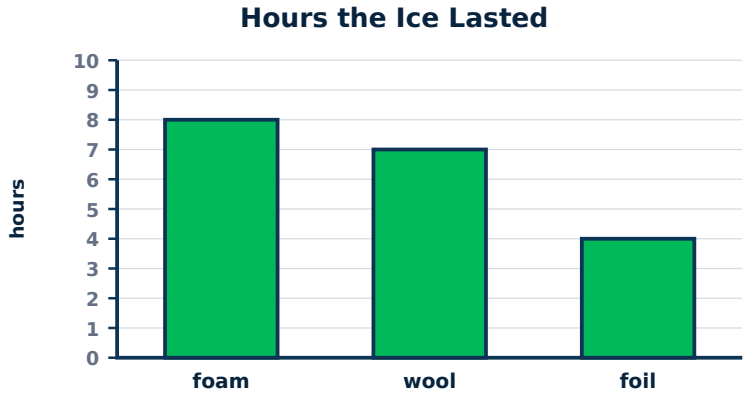
   keeping ice is not a criterion

   budgets do not matter in design

   it ignores the cost constraint

   Cooler A kept ice the shortest time

4. A team tested coolers with three linings. The goal: at least 6 hours. Foam costs $4, wool $2, foil $1. Which lining should the team pick?



   wool any of the three foil foam

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Answer Key - Grade 4 Science Worksheet - Challenge Me

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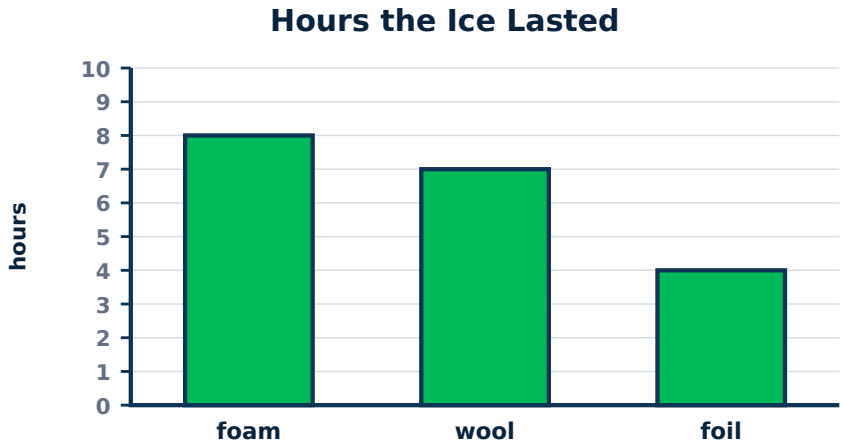
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