Design and Test a Solution

Grade 4 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. A ramp for a toy wheelchair must be gentle enough to roll up and fit in a 30 cm space. Test: gentle but 45 cm long. What is the best next step?

   cut it to 30 cm and make it steep

   make it steeper but keep 45 cm

   say it works because it is gentle

   add a turn so the ramp fits in 30 cm

2. Materials: one shoe box, cotton balls, foil. Goal: keep an ice cube for 60 minutes. Which plan stays within the materials?

   put the ice in a freezer bag in a cooler

   cover the box with bubble wrap

   line the box with foil and pack cotton around the ice

   wrap the ice in a wool sock

3. Which problem statement gives the best criteria and constraints?

   make a cool watering thing for the plants

   water the plants using lots of different stuff

   keep 3 seedlings watered for a week using one 2-liter bottle

   help the class plants somehow this month

4. A school garden needs a fence that keeps rabbits out and costs under $50. Which is a criterion?

   rabbits cannot get into the garden

   the fence costs under $50

   the fence uses only wood from the shed

   the fence is built in one weekend

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Answer Key - Grade 4 Science Worksheet - Challenge Me

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