DATE: NAME: CLASS:

CHAPTER 7 Pop Can Race

BLM 3-9

Goal • Apply your knowledge of electric charge by designing an experiment.

Introduction

Charge separation causes objects to interact in different ways. Use your experience from the activities in Chapter 7 to help you design an experiment to solve the following problem.

Question

How can you make an empty pop can roll the greatest distance without touching it?

Hypothesize

Write a hypothesis for your experiment.

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_____

Materials

- fur or wool
- rubber rod
- plastic or glass rod
- plastic golf tube
- balloon
- empty pop can
- plastic wrap and/or plastic bags

Procedure

1. You can work with a partner or in a group. Include any or all of the above materials in the design of your experiment. Write your procedure below.

   _____

   _____

   _____

   _____

2. Test the procedure and revise it as necessary. If you touch the can during the race, the can will be disqualified.

3. Write the revised procedure on the back of the page. Have your procedure approved by the teacher. You will use this procedure in a race against your classmates.

Observations

As your group tests each part of its procedure, write down your observations below. You will need to refer to these observations when you decide which method of racing your can will give you the best chance of winning.

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_____

_____

_____

Results

Record the results of the race. Describe briefly how each group (including your own group) moved its race can and how well each method worked.

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_____

Conclusion

Draw specific conclusions about your group's method of moving the pop can. If your group's method worked, explain why. If your group's method did not work or did not work well, explain why.

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Analyze

1. Was your original hypothesis correct? Explain.

   _____

   _____

2. Evaluate your group's approach to this activity. What aspects of your group's procedure and interaction would you change in future investigations?

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