

# Force and Motion Lab

**0507.11.2** Prepare statements about the relationship among mass, applied force, and distance traveled.

Fill in the first part of the worksheet. Perform the following activities and then fill in the second part of the worksheet.

1. You will need one quarter and three dimes. Place the two dimes in front of you and line up the quarter about two inches from one of the dimes and the last dime about two inches in front of the other dime. Flick the first dime into the quarter and then flick the next dime into the dime. Which went further, the quarter or the dime?



2. You will need two balloons. Blow up one balloon and let it go. Then blow less air into the second balloon and let it go.



# Force and Motion Lab Worksheet

## Part 1

1. Prediction \_\_\_\_\_

Result \_\_\_\_\_

2. Prediction \_\_\_\_\_

Result \_\_\_\_\_

## Part 2 – Put these statements into your own words.

1. The coins at rest are knocked into motion with the energy of the flicked dimes. The distance they traveled depended upon the strength of the flick and their own mass.

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2. As the air rushes from the balloon, an equal and opposite force acts on the balloon itself, rocketing it into the air. Less air in the balloon results in less force pushing against the balloon.

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