

Rollerball

Procedure

- 1. Collaborate** Work with a partner to create a roller coaster for the marble. Tape one end of the tubing to the edge of your desk. This will be the start of the track. Record your observations in the chart below.

Height at Start	Height at End	Observations

- 2. Experiment** Tape the other end of the tubing to the seat of a chair that is lower than the desk. Let the tubing drape between the desk and the chair so that it just touches the floor.
 - 3. Observe** Drop the marble into the top of the tubing. Observe how the marble travels. In your chart, record your observations of the marble's changes in speed.
 - 4. Use Variables** Tape the tubing that was on the chair to another desk of the same height as the first desk. Drop the marble through the tube. In your chart, record your observations of the marble's movement.
 - 5. Predict** Hold the end of the tube higher than the desk. Predict how far the marble will run through the tubing. Record your prediction on the line below. Test your prediction.
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Conclusion

Write the answers to the questions below.

1. **Infer** How did the height at the end of the track affect the speed of the marble through the tubing?

2. **Hypothesize** Was your prediction in step 5 correct? Propose an explanation of the results.

Investigate More!

Design an Experiment Will twists and turns in the tubing change the height a marble can travel? Experiment with different arrangements. Choose a graph or chart to report data from the experiment.

