

NAME _____

RAMP IT UP

DIRECTIONS Try this experiment to see how changing a car's potential energy changes its kinetic energy.

PREDICT Will a car racing down a ramp travel a shorter or greater distance if you raise the ramp's height? _____

GATHER YOUR MATERIALS:

Books, cardboard, toy car or completed car from Unit 1: Aerodynamics, tape, ruler

PROCEDURE

- 1 Use books and cardboard to make a ramp. Use tape to secure both ends of the ramp to the books and floor.
- 2 Measure the height of the ramp. Record the height under "Run 1" in the table below.
- 3 Place your car at the top of the ramp. Release the car. Once it stops moving, use the ruler to measure how far it rolled from the end of the ramp.
- 4 Add two textbooks to raise the height of your ramp. Then repeat steps 2 and 3.

DATA

	Ramp Height	Distance Car Rolled
Run 1		
Run 2		

CONCLUSIONS

Answer these questions on a separate sheet of paper.

- 1 What happened when you raised the height of the ramp? Was your prediction correct?
- 2 Did raising the ramp's height give the car more or less potential energy? Explain your answer.
- 3 Did the car in Run 1 or 2 end up with more kinetic energy? How could you tell?