

PROCEDURE FOR PERIOD 3

- 1.** Review your data and observations and discuss the results of your experiment with your lab partner.
- 2.** Discuss the following questions with the class:
 - A. What are the effects of changing the following variables:

 - i. number of batteries*
 - ii. series versus parallel connections of the batteries*
 - iii. winding the string around the plastic pulley instead of around the nail**
 - B. What might account for the variations in the number of washers lifted by a given motor?*

REFLECTING ON WHAT YOU'VE DONE

- 1.** Write a conclusion summarizing what you learned. Record your final observations and conclusions, including the following:
 - A.** Your observations of the effect on the motor of changing the number of batteries connected to the motor
 - B.** The effect you observed when connecting the batteries to the motor in series and in parallel
 - C.** Any differences you observed in the motor's performance between when the string was wound around the nail and when it was wound around the plastic pulley
 - D.** A detailed description of the setup that allowed the motor to lift the greatest number of washers, along with any drawings you wish to include
- 2.** Answer this question in your science notebook:

What is the maximum force exerted by the motor?