

## Power Lab

Purpose - to determine the factors which affect power output.

Procedure -

- 1.) Record yours and your partner's mass in kg (if you know your weight in pounds divide by 2.2).

Me

Partner

\_\_\_\_\_

\_\_\_\_\_

- 2.) Measure the height of the south east stairs (both flights) near the library [3.81 m].

- 3.) Time you and your partner in three trials running up the stairs

- 4.) Complete a table like the one below.

	<u>Your Time</u>	<u>Partners Time</u>
Trial 1		
Trial 2		
Trial 3		

Your Weight Calculation

- 5.) Calculate the power produced with each trial and the average power of each person.

	<u>Your Power</u>	<u>Partners Power</u>
Trial 1		
Trial 2		
Trial 3		
Average		

Example Power Calculation

Discussion -

- 1.) How would doubling your force affect your power if the time stayed the same?

- 2.) How would doubling the time affect your power if the force stayed the same?

Conclusion - State the results for you and your partners average power production, as well as state the

factors that power production is dependent on. Be sure to explain how these factors may affect the power.