

Push Harder— Newton's Second Law

Name _____

Date: _____

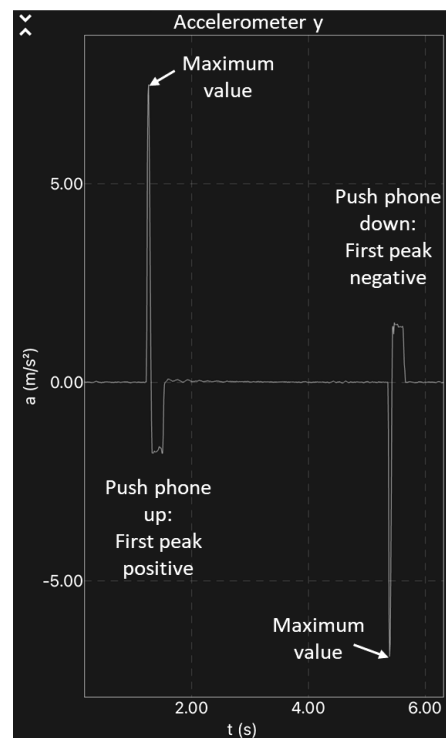
Student worksheet

Directions: Use this sheet to record data as you do your experiment.

1. Use the data table below to record the maximum acceleration for each trial. To determine the maximum accelerations from your recordings, pick or select the data point where your *first* peak is at its maximum.

Your first peak can be negative or positive depending on which direction you push your phone (up or down). If your first peak is positive, select the highest data point. If your first peak is negative, select the lowest data point.

In the table below, record the *absolute acceleration values* of the maximum of your first peak.

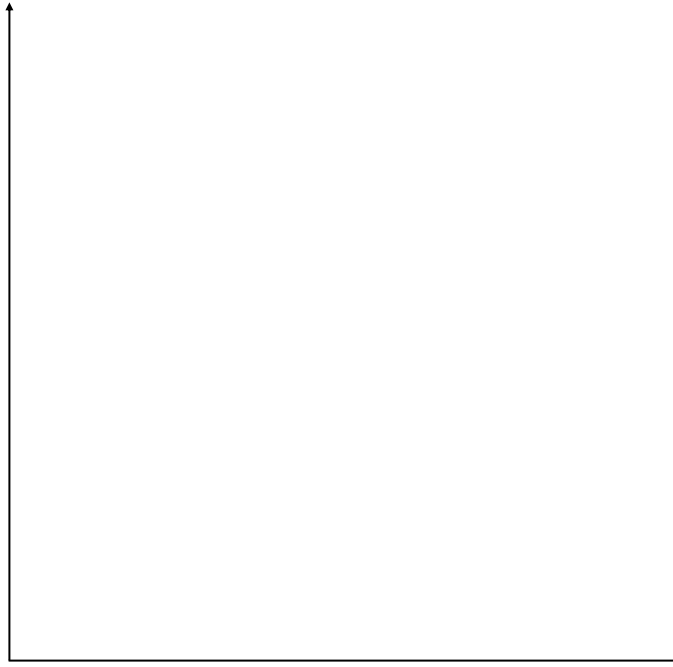


	Maximum acceleration (m/s ²)			
Push strength	Trial 1	Trial 2	Trial 3	Average
Light				
Medium				
Hard				

Push Harder— Newton's Second Law—Page 2

Name _____

2. Make a graph of the maximum acceleration vs. the strength of the push.



3. What relationship do you see between force and acceleration?