

EARTHQUAKE MACHINE

INSTRUCTIONS:

- a. Tape the meter stick onto the sandpaper strip on the board.
- b. Position the box at one end of the board so it is centered on the sandpaper. Use books to raise the other end of the board approximately 10 cm (4 in.). Measure and record the height.
- c. Gently roll the string onto the dowel until the string lifts off the paper and becomes taut. Note the location of the mark on the string relative to the meter stick. Take care to keep the dowel in the same position during rolling and measurement.
- d. Continue to roll the string onto the dowel until the box moves. The box should move with a quick, jumping motion. Record the new location of the mark on the string (the distance the box moved) on the data table. Continue rolling up the string and recording jump distance until the box hits the meter stick. The meter stick can be pulled upwards to allow the box to continue to be pulled.
- e. Subtract the beginning measurement from the ending measurement or add up the jump measurements
to find out how far the box moved. Divide by the number of jumps to calculate an average jump distance.

(Change 1 variable for each trial)

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TITLE: _____ **(CM) Block #** _____

	Rough Sand Paper	Smooth Sand Paper	Combo Sand Paper	No Sand Paper	Angled Sand Paper
Beginning Distance					
Jump 1					
Jump 2					
Jump 3					
Jump 4					
Jump 5					
Jump 6					
Jump 7					
Jump 8					
Jump 9					
Jump 10					
Total Distance					
Average Distance					

TITLE: _____ **(CM) Block #** _____

	Rough Sand Paper	Smooth Sand Paper	Combo Sand Paper	No Sand Paper	Angled Sand Paper
Beginning Distance					
Jump 1					
Jump 2					
Jump 3					
Jump 4					
Jump 5					
Jump 6					
Jump 7					
Jump 8					
Jump 9					
Jump 10					
Total Distance					
Average Distance					