Projectile Motion

Step 1 - Finding velocity:

To begin this experiment you will have to learn a little about the velocity of a projectile launched from the "short range" projectile launcher. Shoot the projectile straight up into the air at each possible setting, until you have consistent results.

Setting	Average Maximum Height
1 click	
2 clicks	
3 clicks	

Use your results to calculate the velocity of the projectile for each setting.

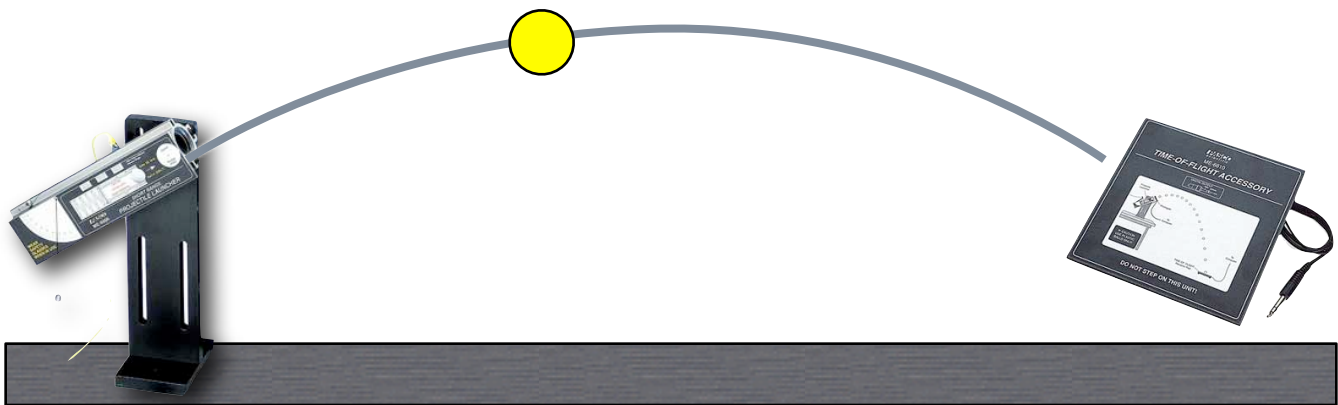|	
Velocity - 1	
Velocity - 2	
Velocity - 3	

Name _____ Date _____

Step 2 - Equal landing height:

Each group will be given a different angle for their next launch, all will use the "2 click" setting. Calculate the time of flight and the range with your values.

Calculated Velocity	Assigned Angle	Predicted Range	Predicted Time
Actual Results (completed by the teacher)			

Grade

Name _____ Date _____

Step 3 - Launched from an elevated height:

Each group will be given a different angle for their next launch, all will use the "3 click" setting. Calculate the time of flight and the range with your values.

Calculated Velocity	Assigned Angle	Initial Height	Predicted Range	Predicted Time
Actual Results (completed by the teacher)				

Grade