PROJECTILE IN ONE DIMENSION

Name: _____ Grade&Sec: _____

OBJECTIVE: Describe the effect on an object's horizontal motion upon the objects vertical motion.

DIRECTION:

1. Perform the Activity "Projectile in One Dimension".
2. Choose the ball that you are going to observe, click the Play button and observe the simulation.
3. Identify the distance of covered per second of each ball and complete the table below.

RED BALL ONLY		BLUE BALL ONLY		BLUE WITH COMPONENTS					
				1ST COMPONENT		2ND COMPONENT		3RD COMPONENT	
X	Y	X	Y	X	Y	X	Y	X	Y
_____	20	20	_____	_____	20	_____	20	20	_____
_____	19	_____	19	20	_____	_____	19	30	_____
_____	15	40	_____	_____	15	_____	15	40	_____
_____	9	50	_____	20	_____	_____	9	50	_____
_____	0	_____	0	_____	0	_____	0	60	_____

GUIDE QUESTIONS:

1. What did you observe to the horizontal motion of a red ball?
   Answer: _____
1. What did you notice about the vertical motion of a red ball?
   Answer: _____
2. Describe the effect on an object's horizontal motion upon the objects vertical motion.

   Answer: _____

CONCLUSION:

To conclude, projectiles always maintain a _____horizontal velocity and always experience a constant vertical acceleration of 9.8 m/s^2, _____(neglecting air resistance). The horizontal and vertical motions are completely _____ of each other. Therefore, horizontal and vertical can be treated _____.