

1st Quarter Extra Credit

Name _____

Period _____

- As an object falls, what happens to its:
 - Speed
 - Velocity
 - Acceleration
 - Distance
- What is the acceleration of a projectile at the apex of its parabola?
- If I drop a rock off a bridge and it takes 2 seconds to hit the water, how far did the rock fall?
- In order to move an object at constant velocity, what must occur? Give an example FBD with numbers.
- Diagram the velocity vectors to represent the parabola of a projectile thrown into the air at a 40° angle with a 30 m/s vertical velocity and a 10 m/s horizontal velocity. Show both vertical and horizontal vectors.
- A baseball and a shot put are dropped from the same height at the same time. Which hits the ground first? Why?
- Explain why I'm so fast on my new lightweight road bike? Use Newton's 2nd Law to explain.