

Projectile Motion Rules

Projectile

- An object that moves through space acted upon only by the earth's gravity.

Projectile Motion Rules

- 1. Projectiles always maintain a constant horizontal velocity (V_x).
- 2. Projectiles always experience a constant vertical acceleration of -9.8 m/s^2 .
- 3. Horizontal and Vertical motion are completely independent of each other. Therefore, the velocity of a projectile can be separated into horizontal and vertical components.

Projectile Motion Rules (cont'd)

- 4. For a projectile beginning and ending at the same height the time it takes to rise to its highest point equals the time it takes to fall from the highest point back to the original position. Vertical position is parabolic.
- 5. Objects dropped from a moving vehicle have the same velocity as the moving vehicle.

