

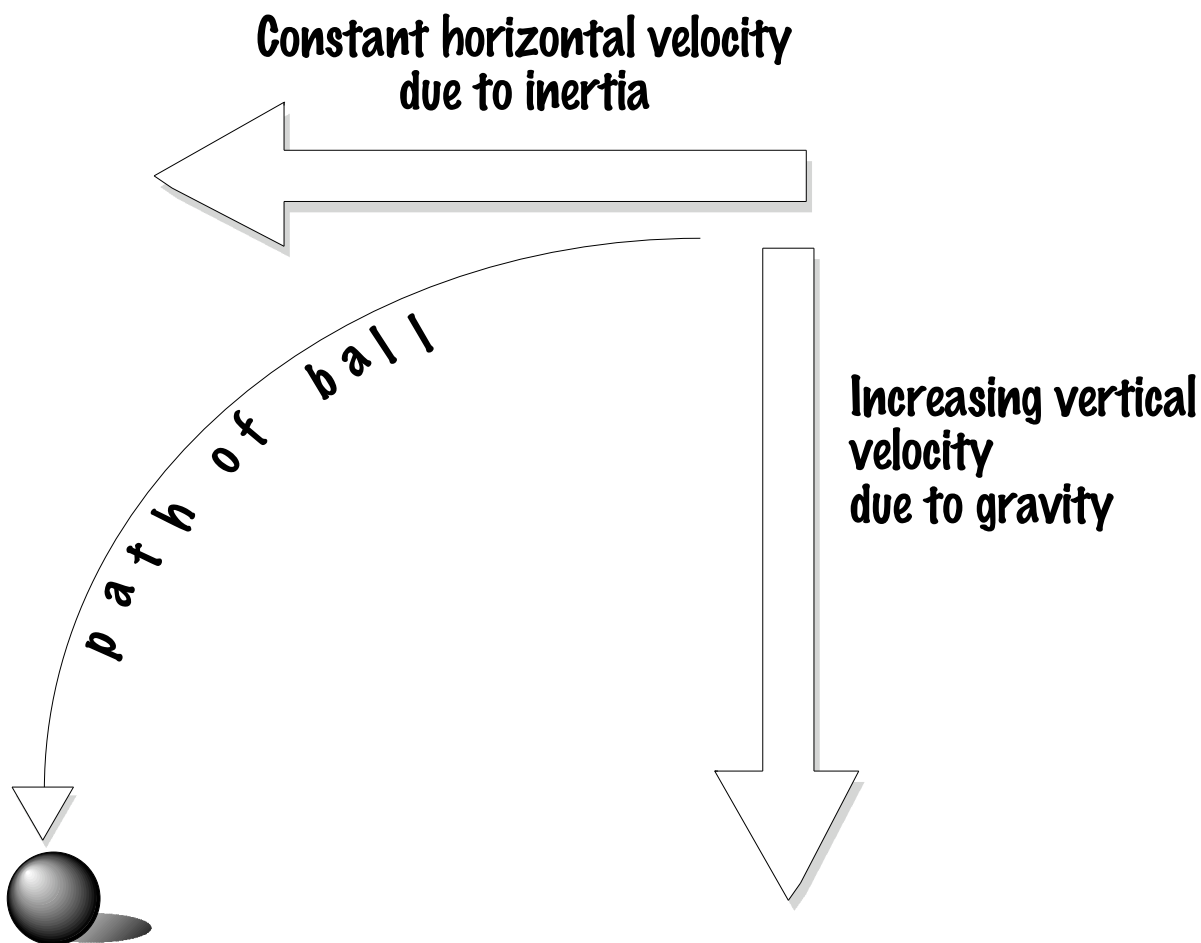
Projectile and Circular Motion Notes

Anything that's thrown or shot through the air is a projectile.

Due to the pull of Earth's gravity and an objects own inertia, projectiles follow a curved path.

A thrown ball has horizontal motion and moves parallel to the ground. When you let go of the ball, no other force accelerates it forward. Its horizontal velocity is constant (ignoring air resistance).

When you let go of the ball, gravity pulls it downward giving it vertical motion (perpendicular to the ground). Vertical velocity increases. Gravity exerts an unbalanced force on the ball, changing its path from forward only to forward and downward.



Motion along a curve:

Centripetal acceleration is acceleration toward the center of a curved or circular path. The change in direction of the velocity is toward the center of the curve. (Centripetal means towards the center).

Centripetal force is a force acting toward the center of a curved or circular path.

