



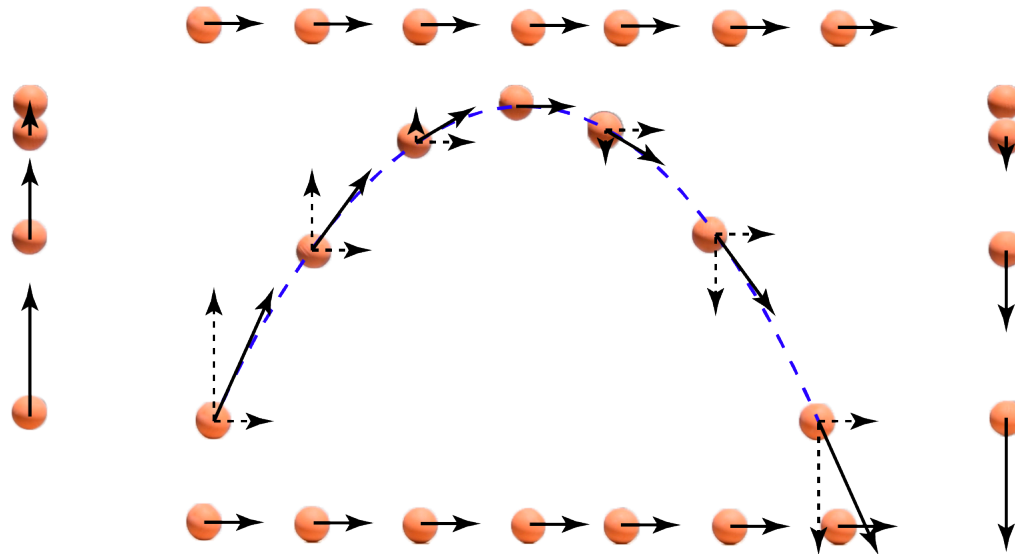
Flipping Physics Lecture Notes: Demonstrating the Components of Projectile Motion

Projectile Motion:

- X-Direction: Constant Velocity
- Y-Direction: Uniformly Accelerated Motion (UAM) with $a_y = -9.81 \text{ m/s}^2$

The velocity vectors in the x-direction will have a constant value.

The velocity vectors in the y-direction on the way up (on the left) will have a decreasing magnitude upward and on the way down (on the right) will have an increasing magnitude downward. The velocity at the top is zero. Those vectors are the components of the resultant velocity vectors for projectile motion.



The acceleration of the projectile (in yellow) is always straight down and has a magnitude of 9.81 m/s^2 .

