**Vocabulary:** **Golf Range**



**Vocabulary**

* Acceleration – the change in velocity per unit time.
	+ Acceleration is calculated by dividing the change in velocity by the elapsed time: *a* = ∆*v* / ∆*t*.
	+ For example, if an object accelerates from 0 m/s to 10 m/s in 2 seconds, the acceleration is 5 m/s/s, or 5 m/s2.
	+ Acceleration is considered positive when the velocity is increasing and negative when the velocity is decreasing. For a falling object, velocity is becoming more negative (decreasing), so acceleration is also negative.
* Air resistance – the force of air pushing against a moving object.
	+ Air resistance is also called *drag*.
	+ Air resistance increases as speed increases.
	+ Air resistance also increases as surface area (size) increases.
* Gravity – the force of attraction between all objects in the universe.
	+ The strength of gravity depends on two factors: mass and distance. As mass increases and distance decreases, the pull of gravity becomes stronger.
* Hang time – the total time a projectile spends in the air along its trajectory.
* Launch angle – (*θ*) the angle a projectile’s path makes with the launch surface.

* Projectile motion – the motion of an object launched into the air at an angle.
* The motion of a projectile can be divided into horizontal and vertical components.
* Trajectory – the path of an object through space.
* Vector – a quantity that has both magnitude and direction.
	+ Vectors are represented graphically as arrows.
		- The magnitude of the vector is shown by the length of the arrow.
		- The direction of the vector is shown by the direction of the arrow.
	+ Vector quantities include displacement, velocity, acceleration, and force.
* Velocity – the speed and direction of a moving object.
	+ Rightward displacement is considered positive and leftward motion is negative. Therefore, the velocity of an object moving from left to right is positive.
	+ Upward motion is positive and downward motion is negative. The velocity of a rising object is positive and the velocity of a falling object is negative.