**Science Reviewer**

**Describing Motion**

* **Motion** – Change on position of an object in a given period of time with respect to a given

reference point

**\*Scalar\*** - Measures (km(s), kg(s), hr(s), day(s), Celsius, etc) the magnitude, size or amount of something without the need to indicate direction.

**\*Vector\*** Gives both magnitude and direction of the measurement. (ex. 120km, North)

* **Vectors –** Involves direction, usually represented as arrows.
* **Distance** - Motion described in terms of the path length covered. Alternatively, it is the distance of an “object of motion” covers/travels in a given amount of time.
* **Displacement –** Vector quantity – magnitude (size) and direction. Or the overall change in an object's position, considering both distance and direction.
* **SI Unit** = Meter (length) – Metric System.

**Velocity:**

* Speed in any given direction.
* You must know both speed and distance.

**Acceleration:**

* Rate of change of velocity.
* Can change in how fast an object is moving.
* **Positive Acceleration –** When an object speeds up.
* **Negative Acceleration –** When an object slows down.
* Every answer is squared (m/s2).
* Every answer uses meters per second (m/s).
* **Vf** – Final Velocity
* **Vi** – Initial Velocity

**Converting Hours to Minutes and Minutes to Hours**

**Hours to Minutes:**

**Minutes to Hours:**

* If you are converting hours with minutes (e.g. 9 hours and 11 minutes), convert the hours first (9 hours) and add the remaining minutes (11 minutes)