**Science Reviewer**

**Describing Motion**

* Examples of motion are drifting, fluttering, flying, and chasing.
* Can be continuous or not.
* **Motion** – Change on position of an object in a given period of time with respect to a given

reference point.

**\*Scalar\*** - Described by magnitude (size) only.

**\*Vector\*** Gives both magnitude (size) 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 (Systeme International)** = 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, positive acceleration is always positive (+)
* **Negative Acceleration –** When an object slows down, negative acceleration is always negative (-)
* Every answer is squared (e.g. 69m/s2).
* Every answer uses meters per second (m/s).
* **Vf** – Final Velocity
* **Vi** – Initial Velocity

**Convertion of Time:**

**Hours to Minutes:**

**Minutes to Hours:**

**Minutes to Seconds:**

**Seconds to Minutes:**

* 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)

**Other Information:**

* When trying to convert measurements such as kph to m/s, you will change the given to the required unit of measurement.
* When the answer is something similar to 12.3, this should be written as 12.30.

**Unit Prefixes**

|  |  |  |
| --- | --- | --- |
| **Prefix:** | **Symbol:** | **Value:** |
| 1. **Kilo** | k | 1000 |
| 1. **Hecto** | h | 100 |
| 1. **Deka** | da | 10 |
| 1. **Base Unit** |  | 1 |
| 1. **Deci** | d | 0.1 |
| 1. **Centi** | c | 0.01 |
| 1. **Milli** | m | 0.001 |